

Sustainability Appraisal of the South Staffordshire Local Plan Review (2019-2039)

Volume 2 of 3: Regulation 19 SA Report

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LEPUS CONSULTING
LANDSCAPE, ECOLOGY, PLANNING & URBAN SUSTAINABILITY

Sustainability Appraisal of the South Staffordshire Local Plan Review 2019-2039

Volume 2 of 3: Regulation 19 SA Report

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Client comments can be sent to Lepus using the following address:

Eagle Tower

Montpellier Drive

Cheltenham

Gloucestershire

GL50 1TA

Telephone: 01242 525222

E-mail: enquiries@lepusconsulting.com

Website: www.lepusconsulting.com

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Acronyms & Abbreviations

A&E	Accident and Emergency
AA	Appropriate Assessment
ALC	Agricultural Land Classification
AONB	Area of Outstanding Natural Beauty
AQMA	Air Quality Management Area
BMV	Best and Most Versatile
BREEAM	Building Research Establishment Environmental Assessment Method
C of E	Church of England
CCC	Committee on Climate Change
CCDC	Cannock Chase District Council
CEA	Cumulative Effects Assessment
CO₂	Carbon Dioxide
DEFRA	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
DM	Development Management
DMRB	Design Manual for Roads and Bridges
DTA	David Tyldesley and Associates
EDNA	Economic Development Needs Assessment
EIA	Environmental Impact Assessment
EU	European Union
FEMA	Functional Economic Market Area
GBHMA	Greater Birmingham Housing Market Area
GHG	Greenhouse Gas
GI	Green Infrastructure
GIS	Geographic Information Systems
GP	General Practitioner
GTTS	Gypsies, Travellers and Travelling Showpeople
HER	Historic Environment Record
HMA	Housing Market Area
HRBMP	Humber River Basin Management Plan
IMD	Indices of Multiple Deprivation
IRZ	Impact Risk Zone
km	Kilometre
LCA	Landscape Character Assessment
LCT	Landscape Character Type
LNR	Local Nature Reserve
LPR	Local Plan Review
LSOA	Lower Super Output Area
LVA	Landscape and Visual Appraisal
LVIA	Landscape and Visual Impact Assessment
MHCLG	Ministry of Housing, Communities and Local Government

MOU	Memorandum of Understanding
NCA	National Character Area
NERC	Natural Environment and Rural Communities
NHS	National Health Service
NNR	National Nature Reserve
NO₂	Nitrogen Dioxide
NPPF	National Planning Policy Framework
NVQ	National Vocational Qualification
OAN	Objectively Assessed Need
ODPM	Office of the Deputy Prime Minister
PINS	Planning Inspectorate
PO	Preferred Options
PPG	Planning Practice Guidance
PPP	Policies, Plans and Programmes
PRoW	Public Rights of Way
RBMP	River Basin Management Plan
RCA	Regional Character Area
RIGS	Regionally Important Geological and Geomorphological Site
RPG	Registered Park and Garden
RTPI	Royal Town Planning Institute
SA	Sustainability Appraisal
SAC	Special Area of Conservation
SAMMM	Strategic Access Management and Monitoring Measures
SBI	Site of Biological Importance
SEA	Strategic Environmental Assessment
SFRA	Strategic Flood Risk Assessment
SHSID	Spatial Housing Strategy and Infrastructure Delivery
SM	Scheduled Monument
SPA	Special Protection Area
SPD	Supplementary Planning Document
SPZ	Source Protection Zone
SRBMP	Severn River Basin Management Plan
SSDC	South Staffordshire District Council
SSSI	Sites of Special Scientific Interest
SuDS	Sustainable Drainage System
TAG	Transport Analysis Guidance
UNFCCC	United Nations Framework Convention on Climate Change
WCS	Water Cycle Study
ZOI	Zone of Influence

1 Introduction

1.1 Purpose of this report

1.1.1 Lepus Consulting Ltd (Lepus) has been instructed by South Staffordshire District Council (SSDC) to undertake a Sustainability Appraisal (SA) incorporating the requirements of Strategic Environmental Assessment (SEA) of the South Staffordshire Local Plan Review (2019-2039).

1.1.2 This report has been prepared to present full details of the SA process to date and inform SSDC's preparation of the South Staffordshire LPR.

1.1.3 There are four key purposes of the SA process at this stage of the plan making process are shown in **Figure 1.1**.

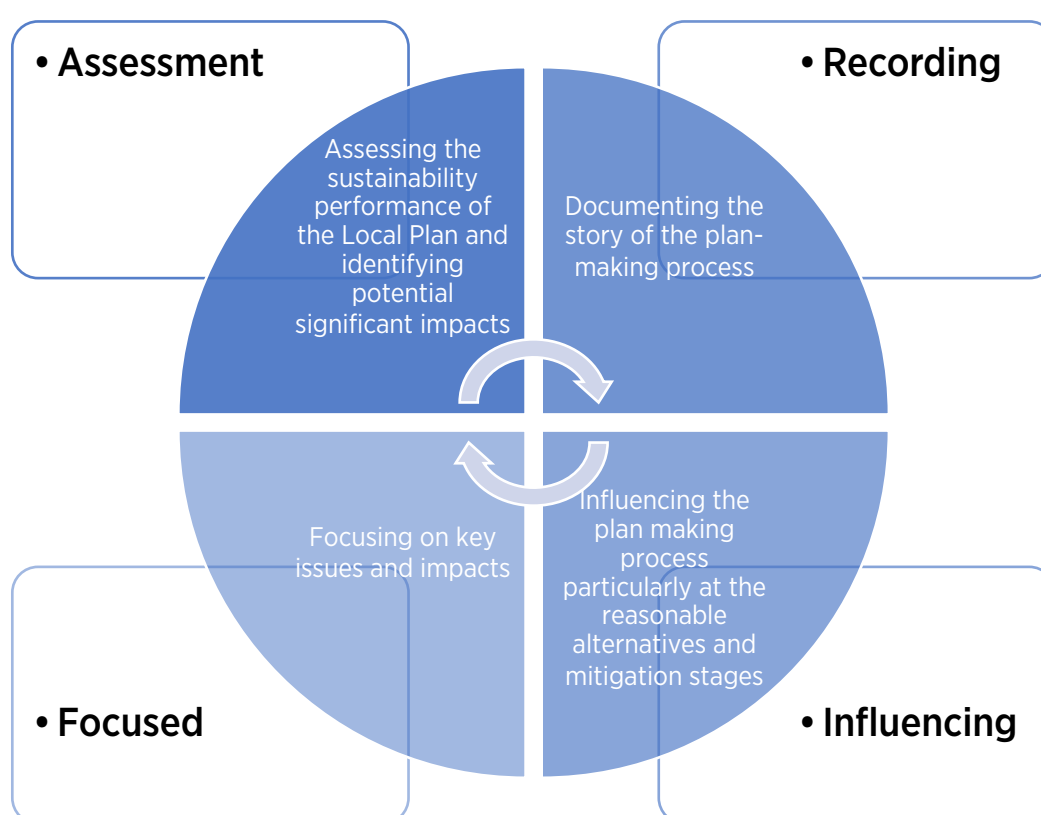


Figure 1.1: Key purposes of the SA process

1.1.4 This SA report is one of a series of reports that have been prepared to document the iterative SA process. Such an approach enables the Council to demonstrate that it has identified, described and evaluated reasonable alternatives during the making of the Local Plan. **Chapter 2** provides further details of the SA process to date.

1.2 Sustainability Appraisal

- 1.2.1 A sustainability appraisal (SA) is a systematic process that must be carried out during the preparation of local plans and spatial development strategies¹. Its role is to promote sustainable development by assessing the extent to which the emerging plan, when judged against reasonable alternatives, will help to achieve relevant environmental, economic and social objectives.
- 1.2.2 This process is an opportunity to consider ways by which the plan can contribute to improvements in environmental, social and economic conditions, as well as a means of identifying and mitigating any potential adverse effects that the plan might otherwise have. By doing so, it can help make sure that the proposals in the plan are appropriate given the reasonable alternatives. It can be used to test the evidence underpinning the plan and help to demonstrate how the tests of soundness have been met. SA should be applied as an iterative process informing the development of the plan.

1.3 Strategic Environmental Assessment

- 1.3.1 Strategic Environmental Assessment (SEA) seeks to ensure that environmental considerations are part of the process of preparing certain plans and programmes. Its purpose is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes, with a view to promoting sustainable development. SEA considers only the environmental effects of a plan, whereas sustainability appraisal considers the plan's wider economic and social effects in addition to its potential environmental impacts².
- 1.3.2 The SEA procedure can be summarised as follows: an environmental report is prepared in which the likely significant effects on the environment and the reasonable alternatives of the proposed plan or programme are identified. The public and the relevant environmental authorities are informed and consulted on the draft plan or programme and the environmental report prepared.

1.4 Integrated approach to SA and SEA

- 1.4.1 The SEA Directive applies to a wide range of public plans and programmes, including land use plans (see Article 3(2)) of the SEA Directive³). The Directive has been transposed into English law by the Environmental Assessment of Plans and Programmes Regulations 2004 (the SEA Regulations, SI no. 1633⁴).

¹ Government guidance on plan making. Available at: <https://www.gov.uk/guidance/plan-making> [Accessed 12/01/22].

² DLUHC and MHCLG (2020) Strategic environmental assessment and sustainability appraisal. Available at: <https://www.gov.uk/guidance/strategic-environmental-assessment-and-sustainability-appraisal> [Accessed 05/04/22].

³ Directive 2001/42/EC of the European Parliament of the Council of 27 June 2001 (SEA Directive). Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32001L0042> [Accessed 12/01/22].

⁴ The Environmental Assessment of Plans and Programmes Regulations 2004. Available at: <http://www.legislation.gov.uk/uksi/2004/1633/contents/made> [Accessed 12/01/22].

1.4.2 SEA is a systematic process for evaluating the environmental consequences of proposed plans or programmes to ensure environmental issues are fully integrated and addressed at the earliest appropriate stage of decision-making. The SEA Directive and SEA Regulations necessitate an environmental report in which the likely significant effects on the environment are identified for Local Plan proposals and reasonable alternatives.

1.4.3 SA is a UK-specific procedure used to appraise the impacts and effects of development plans in the UK. It is required by S19 (5) of the Planning and Compulsory Purchase Act 2004 and should be an appraisal of the economic, social and environmental sustainability of development plans. The present statutory requirement for SA lies in The Town and Country Planning (Local Planning) (England) Regulations 2012.

1.5 Legislative context

1.5.1 When submitting their local plan to the Secretary of State, section 19(5) of the Planning and Compulsory Purchase Act⁵ requires that local planning authorities (LPAs) must have prepared and be able to submit an SA at the same time.

1.5.2 The Environmental Assessment of Plans and Programmes Regulations⁶ (SEA Regulations) require that Strategic Environmental Assessments (SEA) be prepared for a wide range of plans and programmes, including Local Plans.

1.5.3 Planning Practice Guidance (PPG) advocates that the SA process should integrate the requirements of the SEA Regulations. On this basis, this SA report incorporates the requirements of the SEA regulations.

1.5.4 PPG on SEA and SA⁷ states:

“Sustainability appraisals incorporate the requirements of the Environmental Assessment of Plans and Programmes Regulations 2004 (commonly referred to as the ‘Strategic Environmental Assessment Regulations’). Sustainability appraisal ensures that potential environmental effects are given full consideration alongside social and economic issues”.

⁵ Planning and Compulsory Purchase Act 2004. Available at: <https://www.legislation.gov.uk/ukpga/2004/5/contents> [Accessed 12/01/22].

⁶ The Environmental Assessment of Plans and Programmes Regulations 2004. Available at: <http://www.legislation.gov.uk/uksi/2004/1633/contents/made> [Accessed 12/01/22].

⁷ MHCLG (2020) Guidance: Strategic environmental assessment and sustainability appraisal. Available at: <https://www.gov.uk/guidance/strategic-environmental-assessment-and-sustainability-appraisal> [Accessed 12/01/22].

1.6 How to read and understand the R19 SA Report

1.6.1 This report should be read alongside the Publication Version of the South Staffordshire LPR. The various appendices provide essential contextual information to the main body of the report. The contents of this SA Report are listed as follows:

- **VOLUME 1: Non-Technical Summary** provides a summary of the Regulation 19 SA work.
- **VOLUME 2: Main SA Report** (this document)
 - **Chapter 1** presents an introduction to this report.
 - **Chapter 2** sets out information about the LPR and the SA process to date.
 - **Chapter 3** presents the evolution of the environment without the plan.
 - **Chapter 4** sets out the SA methodology.
 - **Chapter 5** presents details of the reasonable alternatives considered throughout the SA process.
 - **Chapter 6** presents details on the preferred approach.
 - **Chapters 7 to 15** set out the likely significant effects on the environment, per SEA topic.
 - **Chapter 16** presents the cumulative effects assessment.
 - **Chapter 17** sets out a range of monitoring recommendations for the LPR.
 - **Chapter 18** summarises ways in which the SA has influenced the LPR throughout the plan making process, including through recommendations made in the SA.
 - **Chapter 19** outlines the conclusions, residual effects and next steps.
- **VOLUME 3: Appendices**
 - **Appendix A** presents a review of the Policies, Plans and Programmes (PPPs).
 - **Appendix B** presents the SA Framework.
 - **Appendix C** presents the consultation responses received during each stage of the SA process from Statutory Consultees.
 - **Appendix D** provides additional context to **Chapter 4** of the main Regulation 19 SA Report regarding the topic specific methodologies and assumptions used to assess policies, proposals, and reasonable alternatives.
 - **Appendix E** presents the assessment of a new residential growth option.
 - **Appendix F** presents the assessment of 58 new/amended reasonable alternative sites (pre-mitigation).
 - **Appendix G** summarises the assessment of all 356 reasonable alternative sites assessed through the SA process (pre-mitigation), considers the potential mitigating influence of the LPR policies, and presents the post-mitigation assessment of all 356 reasonable alternative sites.
 - **Appendix H** presents SSDC's outline reasons for selection and rejection of reasonable alternative sites which have been identified, described and evaluated through the SA process.
 - **Appendix I** presents the assessment of the LPR policies.

2 About the Plan and the sequencing of the SA process

2.1 Geography of the Plan area

- 2.1.1 South Staffordshire is a local governmental district in the West Midlands, adjacent to the western boundary of the Black Country, bordering Shropshire on the east, Worcestershire to the south and Stafford on the northern border. In total, South Staffordshire district covers approximately 40,700ha, with an estimated population of 112,369 as of 2022⁸. The district is predominantly rural with several larger towns, including Codsall which is the administrative centre of the South Staffordshire district⁹ (see **Figure 2.1**).
- 2.1.2 The plan area is characterised by distinctive rural landscapes comprised of agricultural and Green Belt land, with 19 conservation areas currently listed across the South Staffordshire district¹⁰. These include the Shropshire Union Canal and Staffordshire and Worcestershire Canal. On the north eastern border, South Staffordshire lies adjacent to Cannock Chase, which is an Area of Outstanding Natural Beauty (AONB) and also contains a Special Area of Conservation (SAC). Other notable features include Baggeridge Country Park and the historic Weston Park.
- 2.1.3 South Staffordshire has some larger towns, although a large proportion of employment comes by way of commuting to the neighbouring Black Country and other districts.

⁸ City Population (2022) South Staffordshire. Available at: https://www.citypopulation.de/en/uk/westmidlands/admin/E07000196_south_staffordshire/. [Accessed 21/07/22]

⁹ South Staffordshire District Council (2022) Council Service Directory. Available at: <https://www.sstaffs.gov.uk/contact-us/view-full-directory.cfm>. [Accessed 04/08/22]

¹⁰ South Staffordshire District Council (2022) Conservation Areas. Available at: <https://www.sstaffs.gov.uk/planning/conservation-areas.cfm> [Accessed 04/08/22]

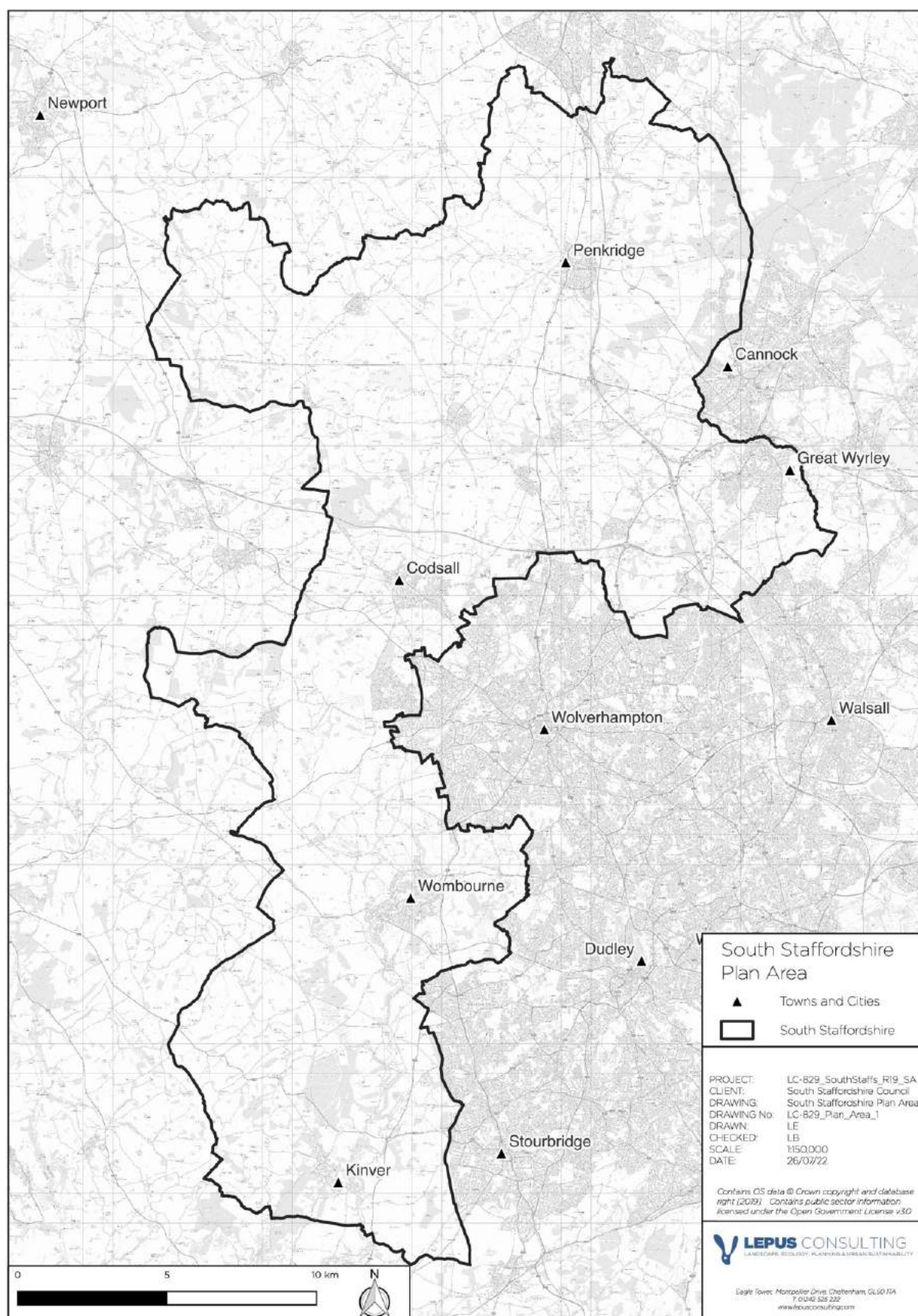


Figure 2.1: Map of South Staffordshire District

2.2 The South Staffordshire Local Plan Review

- 2.2.1 The UK Government requires that local plans should be reviewed every five years and updated as necessary. The current adopted Local Plan for South Staffordshire consists of the Core Strategy and the Site Allocations Document (SAD). The South Staffordshire LPR will update and replace these documents and will set out the overall strategy for development in the district to 2039, including a vision for the future, relevant objectives, site allocations, site-based policies and development management policies which will guide the determination of planning applications.
- 2.2.2 The vision of the LPR is as follows:
- 2.2.3 *“South Staffordshire will strive to protect & enhance its distinctive rural character, communities, and landscape, whilst creating beautiful and thriving new places in which people can live, work, and play”.*
- 2.2.4 The LPR identifies 13 Strategic Objectives which will help to achieve this vision, as presented in **Table 2.1**.
- 2.2.5 During the Local Plan preparation process, SSDC has conducted three rounds of Regulation 18 consultation. The Issues and Options Consultation (2018) was the first stage of the LPR (known as Regulation 18 (I)). The Spatial Housing Strategy and Infrastructure Delivery Consultation (2019) was the second stage of the LPR (known as Regulation 18 (II)), which refined the spatial options assessed at the Issues and Options stage and offered the Council a chance to consult with the public on the spatial strategy alternatives. The third stage of LPR preparation was the Preferred Options Consultation (2021) (known as Regulation 18 (III)), which set out proposed sites for housing, employment and the Gypsy and Traveller community, and included new policies and policy directions.
- 2.2.6 Following completion of the Preferred Options Consultation in December 2021, SSDC progressed work on the Publication Version of the LPR for the Regulation 19 stage.

Table 2.1: Strategic Objectives of the South Staffordshire LPR

Development Strategy

- **Strategic Objective 1:** Protect the Green Belt and Open Countryside as far as possible, ensuring that where Green Belt release is necessary that mechanisms are in place to secure compensatory improvements to the environmental quality and accessibility of the remaining Green Belt.
- **Strategic Objective 2:** Meet the housing and employment needs of the district whilst making a proportionate contribution towards the unmet needs of Great Birmingham Housing Market Area and wider Functional Economic Market Area. New housing will be focused on sustainable locations within the district, either within or adjacent to the district's key villages or through urban extensions adjacent to neighbouring towns and cities.

Homes and Communities

- **Strategic Objective 3:** To provide housing to meet the needs of different groups of the community, including a good range of market and affordable housing of varying sizes and housing that meets the need of an ageing population and people with specialist housing needs.
- **Strategic Objective 4:** To develop a built environment that is of high-quality design respects the character of our existing settlements, reflects local vernacular and creates beautiful and sustainable places where people want to live, work and enjoy leisure activities.
- **Strategic Objective 5:** To encourage healthy communities through the provision of good access to health and education infrastructure, open space, sport and leisure and children's play and youth development facilities.

Economic Vibrancy

- **Strategic Objective 6:** Develop an economic strategy that seeks to retain existing employment and fosters sustainable economic growth, encouraging inward investment and job creation in key sectors such as advanced manufacturing and providing the skills to enable residents to access these jobs.
- **Strategic Objective 7:** Support the vitality of rural areas by enabling the sustainable growth and diversification of rural businesses, including supporting tourism and agriculture.
- **Strategic Objective 8:** Protect and enhance sustainable village centres, retaining the existing retail offer and ensuring good access to community services and facilities.
- **Strategic Objective 9:** Ensure that new development is served by appropriate infrastructure such as road improvements, health, recreation, and education facilities.
- **Strategic Objective 10:** Support the development of sustainable transport network including ensuring that where possible existing and new development is well served by various public transport modes and active travel options such as walking and cycling.

The Natural and Built Environment

- **Strategic Objective 11:** Protect and enhance the district's natural environment including the district's landscape character and key natural assets such as the Cannock Chase Special Area of Conservation, whilst ensuring that biodiversity net gain is delivered across the district.
- **Strategic Objective 12:** Ensure that our communities are resilient and adaptable to the effects of climate change. Deliver appropriate climate change mitigation through renewable energy generation and ensuring that developments are designed and located in a way that delivers greater energy conservation and reduces carbon emissions.
- **Strategic Objective 13:** Enhance the built environment, conserving and enhancing district's heritage assets including the district's canal network.

2.3 Sustainability Appraisal alongside the plan stages: Iteration

- 2.3.1 **Figure 2.2** provides a summary of the main plan making stages and includes SA outputs that were prepared at each stage of the plan making.
- 2.3.2 The preparation of a Scoping Report was the first phase of the SA process. The scoping process set the criteria for assessment (including the SA Objectives) and established the baseline data and other information, including a review of relevant policies, programmes and plans (PPPs). The scoping process involved an overview of key issues, highlighting areas of potential conflict. The output of the scoping phase was the Scoping Report prepared by Lepus Consulting in 2017¹¹.
- 2.3.3 Between November and December 2017, the content of the SA Scoping Report was consulted on with Historic England, Natural England, the Environment Agency and other relevant bodies. The Scoping Report was revised following consideration of the comments received and re-issued to the Council in 2018. **Appendix C** presents a summary of issues raised through comments received during each stage of consultation, including Scoping, from the Environment Agency, Historic England and Natural England.
- 2.3.4 The Regulation 18 (I) Issues and Options SA Report¹² assessed five options for levels of residential growth, two options for Gypsy and Traveller growth, three options for employment growth, six options for residential distribution, four options for employment distribution and 34 options for policies to be included in the LPR. This report was consulted upon between October and November 2018.
- 2.3.5 The Regulation 18 (II) SA Report¹³ set out the appraisal of seven spatial options, as identified in the Spatial Housing Strategy and Infrastructure Delivery document. These spatial options constitute reasonable alternatives for the distribution of new housing growth in the Plan area.
- 2.3.6 The Regulation 18 (III) SA Report¹⁴ included an assessment of 40 draft Development Management (DM) 'direction of travel' policies, 11 draft strategic policies and 317 reasonable alternative sites. The SA report also set out the reasons for selecting and rejecting reasonable alternative sites.

¹¹ Lepus Consulting (2017) Sustainability Appraisal of the South Staffordshire Local Plan Review: Scoping Report. Available at: <https://www.sstaffs.gov.uk/doc/179881/name/FINAL%20LC%2D342%20South%20Staffs%20SA%20Scoping%20Report%20%5F4%5F201117J%20Ecompressed.pdf/> [Accessed 04/08/22]

¹² Lepus Consulting (2018) Sustainability Appraisal of the South Staffordshire Local Plan Review: Issues and Options. Available at: <https://www.sstaffs.gov.uk/doc/179873/name/South%20Staffs%20SA%20Issues%26Options.pdf/> [Accessed 10/08/22]

¹³ Lepus Consulting (2019) Sustainability Appraisal of the South Staffordshire Local Plan Review: Spatial Housing Strategy and Infrastructure Delivery. Available at: <https://www.sstaffs.gov.uk/doc/181110/name/SHSID%20Sustainability%20Appraisal.pdf/> [Accessed 10/08/22]

¹⁴ Lepus Consulting (2021) Sustainability Appraisal of the South Staffordshire Local Plan Review: Preferred Options Plan, Regulation 18 (III) SA Report. Available at: <https://www.sstaffs.gov.uk/doc/182657/name/Sustainability%20Appraisal%20PO%202021.pdf/> [Accessed 10/08/22]

2.3.7 The Regulation 19 SA Report (this report) has been prepared to summarise the SA process to date and help inform the examination stage of the preparation of the LPR. This report sets out the assessment of 55 LPR policies and proposed allocations, as well as 48 new/amended reasonable alternative sites for housing and employment use, and ten additional reasonable alternative sites for Gypsies and Travellers. **Appendix H** also sets out the outline reasons for selecting and rejecting reasonable alternative sites considered throughout the SA process to date.

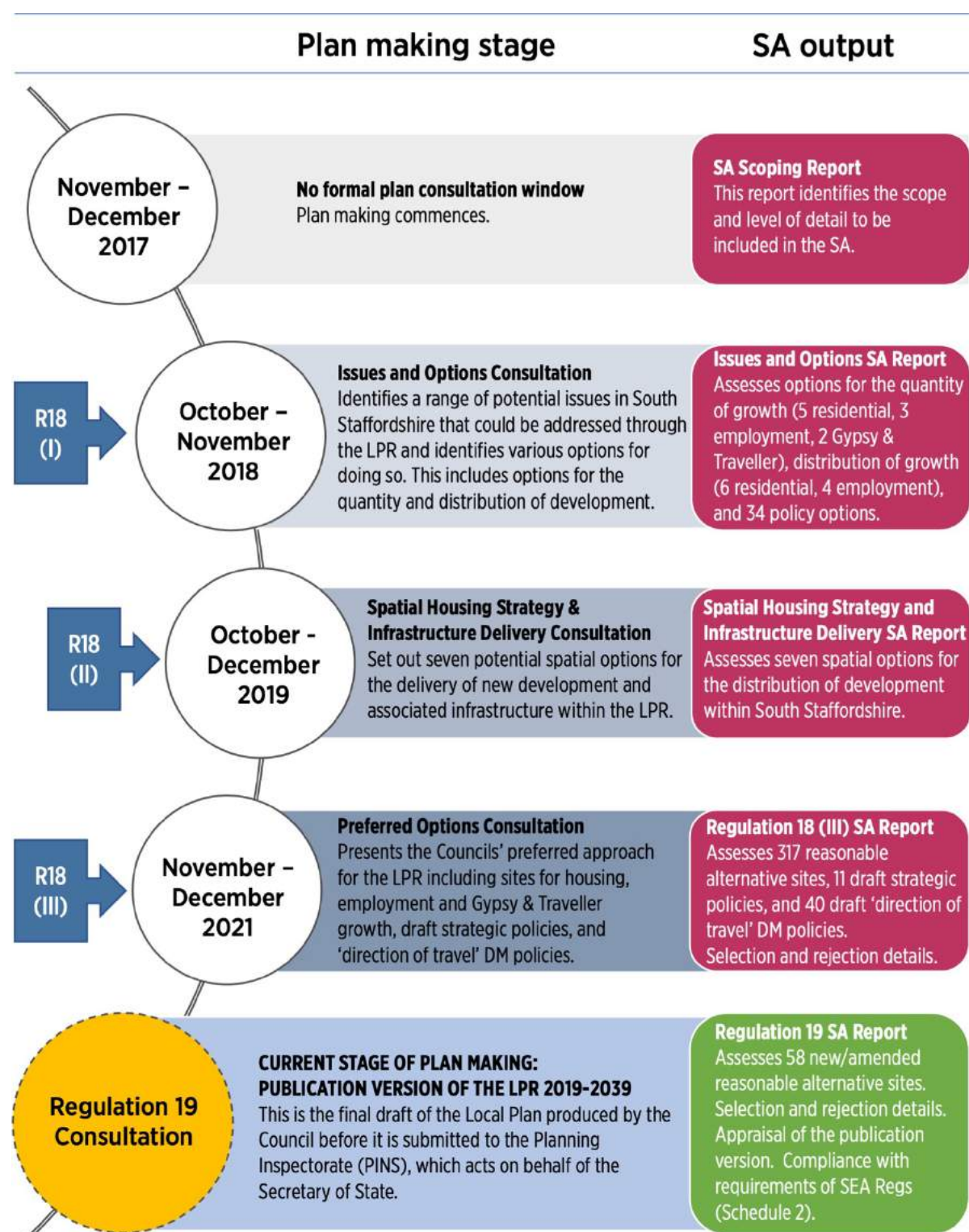


Figure 2.2: Stages in the plan making process accompanied by SA outputs

2.4 Meeting the requirements of the SEA Regulations

2.4.1 There are certain requirements that this report must satisfy in order for it to qualify as an 'environmental report', as set out in the SEA Regulations. These requirements, and where in the report they have been met, are presented in **Figure 2.3**.



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

See section 2.2; and Appendix A.



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

See the SA Scoping Report, Chapter 3, and the 'Baseline' and 'Key Issues' sections of Chapters 7 to 15.



c) The environment characteristics of areas likely to be significantly affected.

See Chapters 7 to 15.



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 the Birds and Habitats Directives.

See the SA Scoping Report and Chapters 7 to 15.



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.

See Appendix A.



f) The likely significant effects on the environment: biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural and architectural heritage. These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

See Chapters 7 to 16.



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.

See Chapters 7 to 15.



h) An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties in compiling the required information. See Chapters 5 and 6.



i) A description of measures envisaged concerning monitoring. See Chapter 17.



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

See the Non-Technical Summary.

Figure 2.3: SEA checklist

3 Evolution of the environment without the plan

3.1 Overview

- 3.1.1 The SEA Regulations requires the Environmental Report to present *“information on the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme”*.
- 3.1.2 In the absence of the LPR, no new plan-led development would occur within the Plan area over and above that which is currently proposed in the adopted Core Strategy and SAD. In this scenario, an appeal-led system would predominate. The nature and scale of development that may come forward under an appeal-led system would be uncertain. In a ‘no plan’ scenario, other plans and policies would continue to be a material consideration in planning decisions and legislative protection would continue to be in place.
- 3.1.3 **Table 3.1** considers the likely evolution of the baseline within South Staffordshire in the absence of the LPR. This takes into account information gathered at the Scoping stage and more up-to-date data and statistics.

Table 3.1: Likely evolution without the Plan

Theme	Likely evolution without the Plan
Air	<ul style="list-style-type: none"> Current national trends suggest that NO₂ concentrations are declining in the district’s AQMAs, with two of the three AQMAs being revoked in 2022. Traffic and congestion are likely to increase with population growth, with implications for air quality, residents and wildlife within 200m of busy roads.
Biodiversity, flora and fauna	<ul style="list-style-type: none"> Sites designated for their national and international biodiversity and/or geodiversity value will continue to benefit from legislative protection. Biodiversity and wildlife sites would be likely to continue to benefit from the Staffordshire Biodiversity Action Plan by increasing in extent, resilience and quality. Potential negative impacts on locally designated sites which benefit from local planning policy framework.
Climatic factors	<ul style="list-style-type: none"> It is anticipated that the risk of fluvial flooding is likely to increase as a result of climate change. The risk of surface water flooding will depend on the size, nature and extent of non-porous built surface cover in the Plan area in the future. Per capita emissions would be likely to decrease over time as renewable energy increases its market share. The Future Homes Standard will come into effect in 2025 and apply to all new developments, this will be accompanied by changes to Parts L (energy) and F (ventilation) of the Building Regulations. The Future Homes Standard will seek to ensure that new homes are future-proofed with low-carbon heating systems and high levels of energy efficiency. At the time of writing, it is understood that a full technical specification for the Future Homes Standard will be consulted on in 2023, with the necessary legislation introduced in 2024, ahead of implementation in 2025.
Cultural heritage	<ul style="list-style-type: none"> Nationally designated heritage assets will continue to benefit from legislative protection. Locally identified assets would potentially be afforded less protection.

Theme	Likely evolution without the Plan
Human health	<ul style="list-style-type: none"> The life expectancy of men and women is anticipated to rise over time. Rates of deprivation would be likely to continue to decline. Some residents will continue to need to travel relatively far, likely by driving, to reach important health facilities and services. Although, this inequality may be addressed to some extent by the Local Transport Plan.
Landscape	<ul style="list-style-type: none"> The Green Belt will continue to benefit from legislative protection. The district will remain a predominantly rural and agricultural landscape. Increased development pressure on the open countryside areas outside the Green Belt
Population and material assets	<ul style="list-style-type: none"> The number of jobs in the district is expected to increase based on current trend data. The number of businesses is expected to increase. Increasing lack of available supply of employment land to meet local and wider market demand. House prices are expected to increase. Less control over location of future housing including increased pressure on the areas of open countryside. Provision of affordable and specialist housing likely to be negatively impacted, as well as an inability to better balance the housing market through provision of more small homes. Less opportunity to enhance community benefits associated with plan-led housing proposals. Less ability to refine the housing stock to meet the changing demands of existing residents such as provision of elderly specific housing accommodation. Energy consumption in the transport sector is anticipated to keep rising. Electricity generated from renewable sources is expected to increase slightly. The population of the district is expected to continue to increase. This will place greater pressure on the capacity of key services and amenities, including health and leisure facilities and housing. In the absence of development proposed in the LPR, there could potentially be a rise in the number of homelessness due to an unmet housing need.
Soil	<ul style="list-style-type: none"> Soil is a non-renewable resource that would continue to be lost. Rates of soil erosion and loss of soil fertility will be likely to continue to rise due to the impacts of agriculture and climate change.
Water	<ul style="list-style-type: none"> Water demand may increase over time. Water abstraction, consumption and treatment in the local area will continue to be managed by the Environment Agency and water companies through the RBMP, WRMP and CAMS in line with the Water Framework Directive.

4 Methodology

4.1 Scope of the Sustainability Appraisal

4.1.1 The purpose of the SA Scoping Report is to establish the scope of the sustainability appraisal. It includes information about:

- Relevant plans, programmes and their environmental objectives which may have a bearing on the SA of the LPR (see **Appendix A** for further information),
- Baseline information;
- Environmental issues and problems; and
- The SA Framework (see **Appendix B**).

4.1.2 The SA Scoping Report for the Local Plan was prepared by Lepus in 2017¹⁵. The Scoping Report was subject to a five-week period of consultation between November and December 2017 with the statutory consultees (Natural England, Historic England and the Environment Agency).

4.1.3 The appraisal uses objective geographic information relating to environmental receptors, the SA Framework and established standards (where available) to help make the assessment decisions transparent and robust.

4.1.4 The SA Framework is comprised of SA Objectives and decision-making criteria. Acting as yardsticks of sustainability performance, the SA Objectives are designed to represent the topics identified in Schedule 2 of the SEA Regulations¹⁶. The SA Objectives and the SEA Topics to which they relate are set out in **Table 4.1**.

4.1.5 Each SA Objective is considered when appraising LPR site allocations, policies and reasonable alternatives. The order of SA Objectives in the SA Framework does not infer prioritisation. The SA Objectives are at a strategic level and can potentially be open-ended. In order to focus each objective, decision making criteria are presented in the SA Framework to be used during the appraisal of policies and sites.

¹⁵ Lepus Consulting (2017) Sustainability Appraisal of the South Staffordshire Local Plan Review: Scoping Report. Available at: <https://www.sstaffs.gov.uk/doc/179881/name/FINAL%20LC%2D342%20South%20Staffs%20SA%20Scoping%20Report%20%5F4%5F201117J%20Ecompressed.pdf/> [Accessed 04/08/22]

¹⁶ Schedule 2 of the SEA Regulations identifies the likely significant effects on the environment, including “issues such as (a) biodiversity, (b) population, (c) human health, (d) fauna, (e) flora, (f) soil, (g) water, (h) air, (i) climatic factors, (j) material assets, (k) cultural heritage including architectural and archaeological heritage, (l) landscape and (m) the interrelationship between the issues referred to in sub-paragraphs (a) to (l).”

Table 4.1: Summary of the SA Objectives

SA Objectives		Relevance to SEA Regulations – Schedule 2
1	Climate Change Mitigation: Minimise South Staffordshire’s contribution to climate change.	Climatic Factors
2	Climate Change Adaptation: Plan for the anticipated impacts of climate change.	Climatic Factors
3	Biodiversity and Geodiversity: Protect, enhance and manage the flora, fauna, biodiversity and geodiversity assets of the district.	Biodiversity, Flora and Fauna
4	Landscape and Townscape: Conserve, enhance and manage the character and appearance of the landscape and townscape, maintaining and strengthening their distinctiveness.	Landscape and Cultural Heritage
5	Pollution and Waste: Reduce waste generation, increase the reuse of, and recycling of, materials whilst minimizing the extent and impacts of water, air and noise pollution.	Air, Water, Soil, Human Health, Population and Material Assets
6	Natural Resources: Protect, enhance and ensure the efficient use of the district’s land, soils and water.	Soil, Water and Material Assets
7	Housing: Provide a range of housing to meet the needs of the community.	Population
8	Health and Wellbeing: Safeguard and improve the physical and mental health of residents.	Human Health and Population
9	Cultural Heritage: Conserve, enhance and manage sites, features and areas of historic and cultural importance.	Cultural Heritage
10	Transport and Accessibility: Improve the efficiency of transport networks by increasing the proportion of travel by sustainable modes and by promoting policies which reduce the need to travel.	Climatic Factors, Population and Material Assets
11	Education: Improve education, skills and qualifications in the district. Raise educational attainment and develop and maintain a skilled workforce to support long-term competitiveness.	Population
12	Economy and Employment: To support a strong, diverse, vibrant and sustainable local economy to foster balanced economic growth.	Population
13	Equality: Reduce poverty, crime and social deprivation and secure economic inclusion.	Population and Human Health

4.2 Best practice guidance

4.2.1 Government policy recommends that both SA and SEA are undertaken under a single SA process, which incorporates the requirements of the SEA Regulations. This can be achieved through integrating the requirements of SEA into the SA process. The approach for carrying out an integrated SA and SEA is based on best practice guidance:

- European Commission (2004) Implementation of Directive 2001/42 on the assessment of the effects of certain plan and programmes on the environment¹⁷.
- Office of Deputy Prime Minister (2005) A Practical Guide to the SEA Directive¹⁸.
- Ministry of Housing, Communities and Local Government (MHCLG) (2021) National Planning Policy Framework (NPPF)¹⁹.
- MHCLG and Department for Levelling Up, Housing and Communities (DLUHC) (2021) Planning Practice Guidance (PPG)²⁰.
- Royal Town Planning Institute (RTPI) (2018) Strategic Environmental Assessment, Improving the effectiveness and efficiency of SEA/SA for land use plans²¹.

4.3 Appraisal process

4.3.1 The purpose of this document is to provide an appraisal of the LPR including reasonable alternatives in line with Regulation 12 of the SEA Regulations²² which states that:

4.3.2 *“Where an environmental assessment is required by any provision of Part 2 of these Regulations, the responsible authority shall prepare, or secure the preparation of, an environmental report ... [which] shall identify, describe and evaluate the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme”.*

4.3.3 This document also provides information in relation to the likely characteristics of effects, as per the SEA Regulations (see **Box 4.1**).

¹⁷ European Commission (2004) Implementation of Directive 2001/42 on the assessment of the effects of certain plan and programmes on the environment. Available at: http://ec.europa.eu/environment/archives/eia/pdf/030923_sea_guidance.pdf [Accessed 12/01/22]

¹⁸ Office of Deputy Prime Minister (2005) A Practical Guide to the SEA Directive. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7657/practicalguidesea.pdf [Accessed 12/01/22]

¹⁹ MHCLG (2021) National Planning Policy Framework. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2> [Accessed 12/01/22]

²⁰ MHCLG & DLUHC (2021) Planning practice guidance. Available at: <https://www.gov.uk/government/collections/planning-practice-guidance> [Accessed 12/01/22]

²¹ RTPI (2018) Strategic Environmental Assessment, Improving the effectiveness and efficiency of SEA/SA for land use plans. Available at: <https://www.rtpi.org.uk/research/2018/january/strategic-environmental-assessment-seasa-for-land-use-plans/> [Accessed 12/01/22].

²² The Environmental Assessment of Plans and Programmes Regulations 2004 (SEA Regulations). Available at: <https://www.legislation.gov.uk/uksi/2004/1633/contents/made> [Accessed 12/08/22]

Box 4.1: Schedule 1 of the SEA Regulations²³

Criteria for determining the likely significance of effects (Schedule 1 of SEA Regulations)

The characteristics of plans and programmes, having regard, in particular, to:

- the degree to which the plan or programme sets out a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources;
- the degree to which the plan or programme influences other plans and programmes including those in a hierarchy;
- the relevance of the plan or programme for the integration of environmental considerations in particular with a view to promoting sustainable development;
- environmental problems relevant to the plan or programme; and
- the relevance of the plan or programme for the implementation of Community legislation on the environment (e.g. plans and programmes linked to waste management or water protection).

Characteristics of the effects and of the area likely to be affected, having regard, in particular, to:

- the probability, duration, frequency and reversibility of the effects;
- the cumulative nature of the effects;
- the transboundary nature of the effects;
- the risks to human health or the environment (e.g. due to accidents);
- the magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected);
- the value and vulnerability of the area likely to be affected due to:
 - special natural characteristics or cultural heritage;
 - exceeded environmental quality standards or limit values;
 - intensive land-use; and
- the effects on areas or landscapes which have a recognised national, Community or international protection status.

4.4 Impact assessment and determination of significance

- 4.4.1 Significance of effect is a combination of impact sensitivity and magnitude. Impact sensitivity can be expressed in relative terms, based on the principle that the more sensitive the resource, the greater the magnitude of the change, and as compared with the do-nothing comparison, the greater will be the significance of effect.

4.5 Sensitivity

- 4.5.1 Sensitivity has been measured through consideration as to how the receiving environment will be impacted by a plan proposal. This includes assessment of the value and vulnerability of the receiving environment, whether or not environmental quality standards will be exceeded, and, for example, if impacts will affect designated areas or landscapes.
- 4.5.2 A guide to the range of scales used in determining impact sensitivity is presented in **Table 4.2**. For most receptors, sensitivity increases with geographic scale.

²³ The Environmental Assessment of Plans and Programmes Regulations 2004 (SEA Regulations). Available at: <https://www.legislation.gov.uk/uksi/2004/1633/contents/made> [Accessed 27/07/22]

Table 4.2: Impact sensitivity

Scale	Typical criteria
International/ national	Designations that have an international aspect or consideration of transboundary effects beyond national boundaries. This applies to effects and designations/receptors that have a national or international dimension.
Regional	This includes the regional and sub-regional scale, including county-wide level and regional areas.
Local	This is the district and neighbourhood scale.

4.6 Magnitude

4.6.1 Magnitude relates to the degree of change the receptor will experience, including the probability, duration, frequency and reversibility of the impact. Impact magnitude has been determined on the basis of the susceptibility of a receptor to the type of change that will arise, as well as the value of the affected receptor (see **Table 4.3**).

Table 4.3: Impact magnitude

Impact magnitude	Typical criteria
High	<ul style="list-style-type: none"> • Likely total loss of or major alteration to the receptor in question; • Provision of a new receptor/feature; or • The impact is permanent and frequent.
Medium	<p>Partial loss/alteration/improvement to one or more key features; or</p> <p>The impact is one of the following:</p> <ul style="list-style-type: none"> • Frequent and short-term; • Frequent and reversible; • Long-term (and frequent) and reversible; • Long-term and occasional; or • Permanent and occasional.
Low	<p>Minor loss/alteration/improvement to one or more key features of the receptor; or</p> <p>The impact is one of the following:</p> <ul style="list-style-type: none"> • Reversible and short-term; • Reversible and occasional; or • Short-term and occasional.

4.7 Significant effects

- 4.7.1 A single value from **Table 4.4** has been allocated to each SA Objective for each reasonable alternative. Justification for the classification of the impact for each SA objective is presented in an accompanying narrative assessment text for all reasonable alternatives that have been assessed through the SA process.
- 4.7.2 The assessment of impacts and subsequent evaluation of significant effects is in accordance with Schedule 2 (6) of the SEA Regulations, where feasible, which states that the effects should include: “*secondary, cumulative, synergistic, short, medium and long-term effects, permanent and temporary effects, positive and negative effects, cumulative and synergistic effects*”.

Table 4.4: Guide to scoring significant effects

Significance	Definition (not necessarily exhaustive)
Major Negative --	<p>The size, nature and location of a development proposal would be likely to:</p> <ul style="list-style-type: none"> • Permanently degrade, diminish or destroy the integrity of a quality receptor, such as a feature of international, national or regional importance; • Cause a very high-quality receptor to be permanently diminished; • Be unable to be entirely mitigated; • Be discordant with the existing setting; and/or • Contribute to a cumulative significant effect.
Minor Negative -	<ul style="list-style-type: none"> • The size, nature and location of development proposals would be likely to: • Not quite fit into the existing location or with existing receptor qualities; and/or • Affect undesignated yet recognised local receptors.
Negligible 0	Either no impacts are anticipated, or any impacts are anticipated to be negligible.
Uncertain +/-	It is entirely uncertain whether impacts would be positive or adverse.
Minor Positive +	<p>The size, nature and location of a development proposal would be likely to:</p> <ul style="list-style-type: none"> • Improve undesignated yet recognised receptor qualities at the local scale; • Fit into, or with, the existing location and existing receptor qualities; and/or • Enable the restoration of valued characteristic features.
Major Positive ++	<p>The size, nature and location of a development proposal would be likely to:</p> <ul style="list-style-type: none"> • Enhance and redefine the location in a positive manner, making a contribution at a national or international scale; • Restore valued receptors which were degraded through previous uses; and/or • Improve one or more key elements/features/characteristics of a receptor with recognised quality such as a specific international, national or regional designation.

- 4.7.3 When selecting a single value to best represent the sustainability performance, and to understand the significance of effects of a spatial option in terms of the relevant SA Objective, the precautionary principle²⁴ has been used. This is a worst-case scenario approach. If a positive effect is identified in relation to one criterion within the SA Framework (see the second column of the SA Framework in **Appendix B**) and a negative effect is identified in relation to another criterion within the same SA Objective, the overall impact has been assigned as negative for that objective. It is therefore essential to appreciate that the impacts are indicative summarily and that the accompanying assessment text provides a fuller explanation of the sustainability performance of the option.
- 4.7.4 The assessment considers, on a strategic basis, the degree to which a location can accommodate change without adverse effects on valued or important receptors (identified in the baseline).
- 4.7.5 Significance of effect has been categorised as minor or major. **Table 4.4** sets out the significance matrix and explains the terms used. The nature of the significant effect can be either positive or negative depending on the type of development and the design and mitigation measures proposed.
- 4.7.6 Each reasonable alternative that has been identified in this report has been assessed for its likely significant impact against each SA Objective in the SA Framework, as per **Table 4.4**. Likely impacts are not intended to be summed.
- 4.7.7 It is important to note that the assessment scores presented in **Table 4.4** are high level indicators. The assessment narrative text should always read alongside the significance scores. Topic specific methods and assumptions in **Appendix D** offer further insight into how each significant effect score was arrived at.
- 4.8 Limitations of predicting effects**
- 4.8.1 SA/SEA is a tool for predicting potential significant effects. Predicting effects relies on an evidence-based approach and incorporates expert judgement. It is often not possible to state with absolute certainty whether effects will occur, as many impacts are influenced by a range of factors such as the design and the success of mitigation measures.
- 4.8.2 The assessments in this report are based on the best available information, including that provided to Lepus by the Council and information that is publicly available. Every attempt has been made to predict effects as accurately as possible.

²⁴ The European Commission describes the precautionary principle as follows: “If a preliminary scientific evaluation shows that there are reasonable grounds for concern that a particular activity might lead to damaging effects on the environment, or on human, animal or plant health, which would be inconsistent with protection normally afforded to these within the European Community, the Precautionary Principle is triggered”.

- 4.8.3 SA operates at a strategic level which uses available secondary data for the relevant SA Objective. All reasonable alternatives and preferred options are assessed in the same way using the same method. Sometimes, in the absence of more detailed information, forecasting the potential impacts of development can require making reasonable assumptions based on the best available data and trends. However, all options must be assessed in the same way and any introduction of site-based detail should be made clear in the SA report as the new data could potentially introduce bias and skew the findings of the assessment process.
- 4.8.4 The assessment of development proposals is limited in terms of available data resources. For example, up to date ecological surveys and/or landscape and visual impact assessments have not been available. The appraisal of the LPR is limited in its assessment of carbon emissions, and greater detail of carbon data would help to better quantify effects.
- 4.8.5 All data used is secondary data obtained from the Council or freely available on the Internet.
- 4.9 SEA topic methodologies and assumptions**
- 4.9.1 A number of topic specific methodologies and assumptions have been applied to the appraisal process for specific SA Objectives (see **Appendix D**). These should be borne in mind when considering the assessment findings.

5 Reasonable alternatives

5.1 Context

5.1.1 Regulation 12 of the SEA Regulations²⁵ states that:

5.1.2 *“Where an environmental assessment is required by any provision of Part 2 of these Regulations, the responsible authority shall prepare, or secure the preparation of, an environmental report ... [which] shall identify, describe and evaluate the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme”.*

5.1.3 Planning Practice Guidance²⁶ states that:

5.1.4 *“Reasonable alternatives are the different realistic options considered by the plan-maker in developing the policies in its plan. They must be sufficiently distinct to highlight the different sustainability implications of each so that meaningful comparisons can be made”.*

5.1.5 The Council has therefore demonstrated how they have identified, described and evaluated reasonable alternatives in the sustainability appraisal report (which includes the requirements of an SEA environmental report) as part of the plan making process for the LPR. The following sections of this chapter document the process of identifying and evaluating different types of reasonable alternative, when and where the Council considered reasonable alternatives in the plan making process, and how the SA influenced the plan-making.

5.2 Different types of reasonable alternatives

5.2.1 It is possible to derive reasonable alternatives for different aspects of a local plan. There is no prescribed formula or procedure about which aspects of the local plan that require reasonable alternatives.

5.2.2 In the case of the LPR, all reasonable alternatives have been identified and described by the Council's plan makers. Reasonable alternatives have been identified through consultation and close working with stakeholders for a range of topics, including residents, local communities, statutory consultees, shareholders, suppliers and 'hard to reach' groups. Stakeholder engagement carried out throughout the plan making process has been primarily through the consultation periods, with response forms accompanying the consultation documents, as well as exhibitions to discuss more contentious issues allowing communities to share their aspirations and concerns with planning officers²⁷.

²⁵ The Environmental Assessment of Plans and Programmes Regulations 2004 (SEA Regulations). Available at: <https://www.legislation.gov.uk/uksi/2004/1633/contents/made> [Accessed 27/07/22]

²⁶ MHCLG (2020) Planning Practice Guidance: Strategic environmental assessment and sustainability appraisal. Available at: <https://www.gov.uk/guidance/strategic-environmental-assessment-and-sustainability-appraisal> [Accessed 13/04/22]

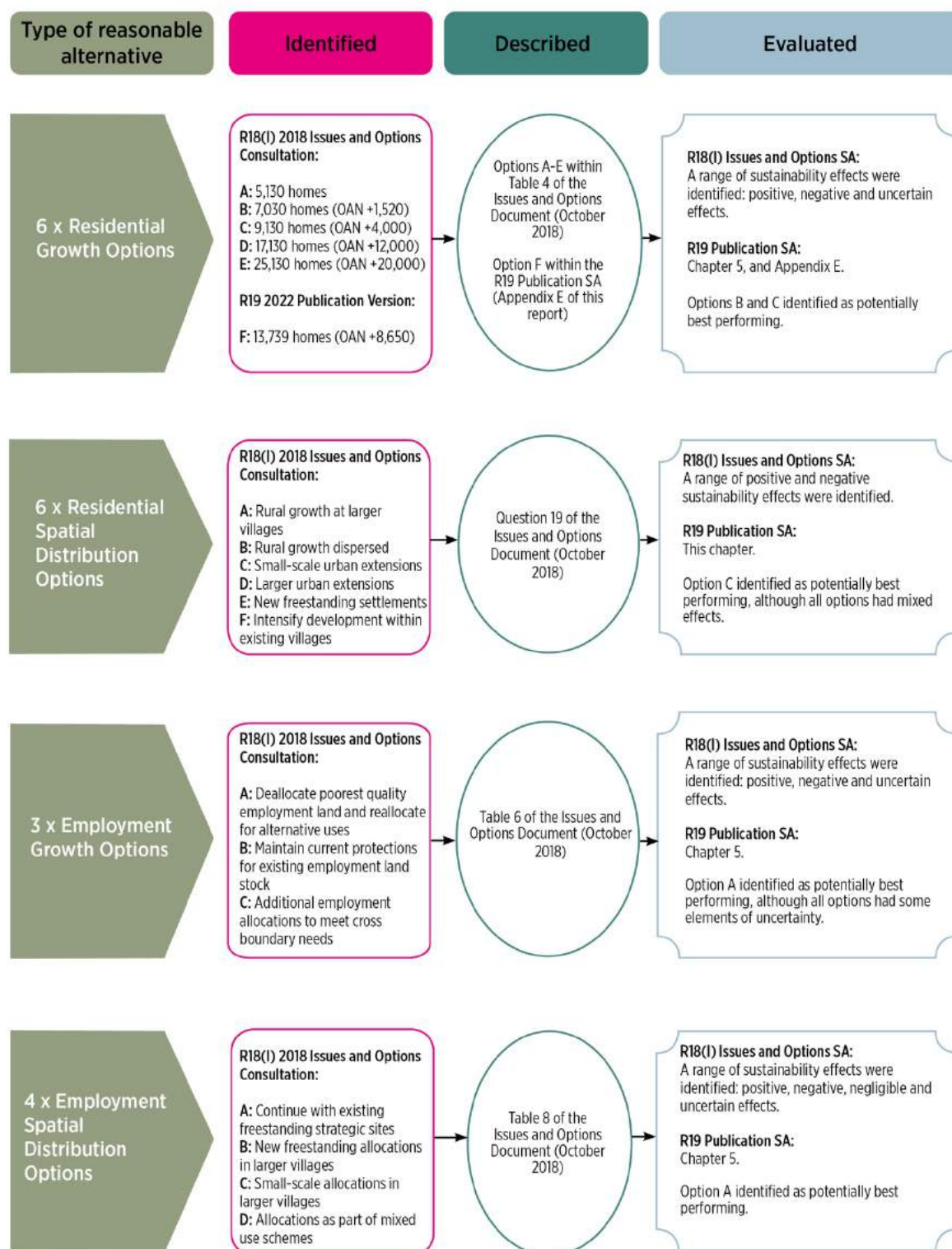
²⁷ South Staffordshire Council (2019) Statement of Community Involvement 2019. Available at: <https://www.sstaffs.gov.uk/planning/statement-of-community-involvement.cfm> [Accessed 10/10/22]

5.2.3 A range of reasonable alternatives have been considered throughout the plan making process, including for the following different attributes of the LPR:

- Reasonable Alternative **Residential Growth Options** x6 (five within the Issues and Options SA Report, 2018; and one as part of this consultation, see **Appendix E**);
- Reasonable Alternative **Employment Growth Options** x3 (see the Issues and Options SA Report, 2018);
- Reasonable Alternative **Residential Spatial Distribution Options** x6 (see the Issues and Options SA Report, 2018);
- Reasonable Alternative **Employment Spatial Distribution Options** x4 (see the Issues and Options SA Report, 2018);
- Reasonable Alternative **Spatial Options** x7 (see the Spatial Housing Strategy and Infrastructure Delivery SA Report, 2019);
- Reasonable Alternative **Policy Options** x86 (for 34 policy areas) (see Regulation 18(I) Issues and Options SA Report, 2018);
- Reasonable Alternative **Development Sites** x 356 (x317 at Regulation 18(III); x 58 as part of this consultation).

5.2.4 **Figure 5.1** summarises the reasonable alternatives considered throughout the plan-making process, and at which chronological stage of the SA process these alternatives have been identified, described and evaluated.

Quick guide to reasonable alternatives



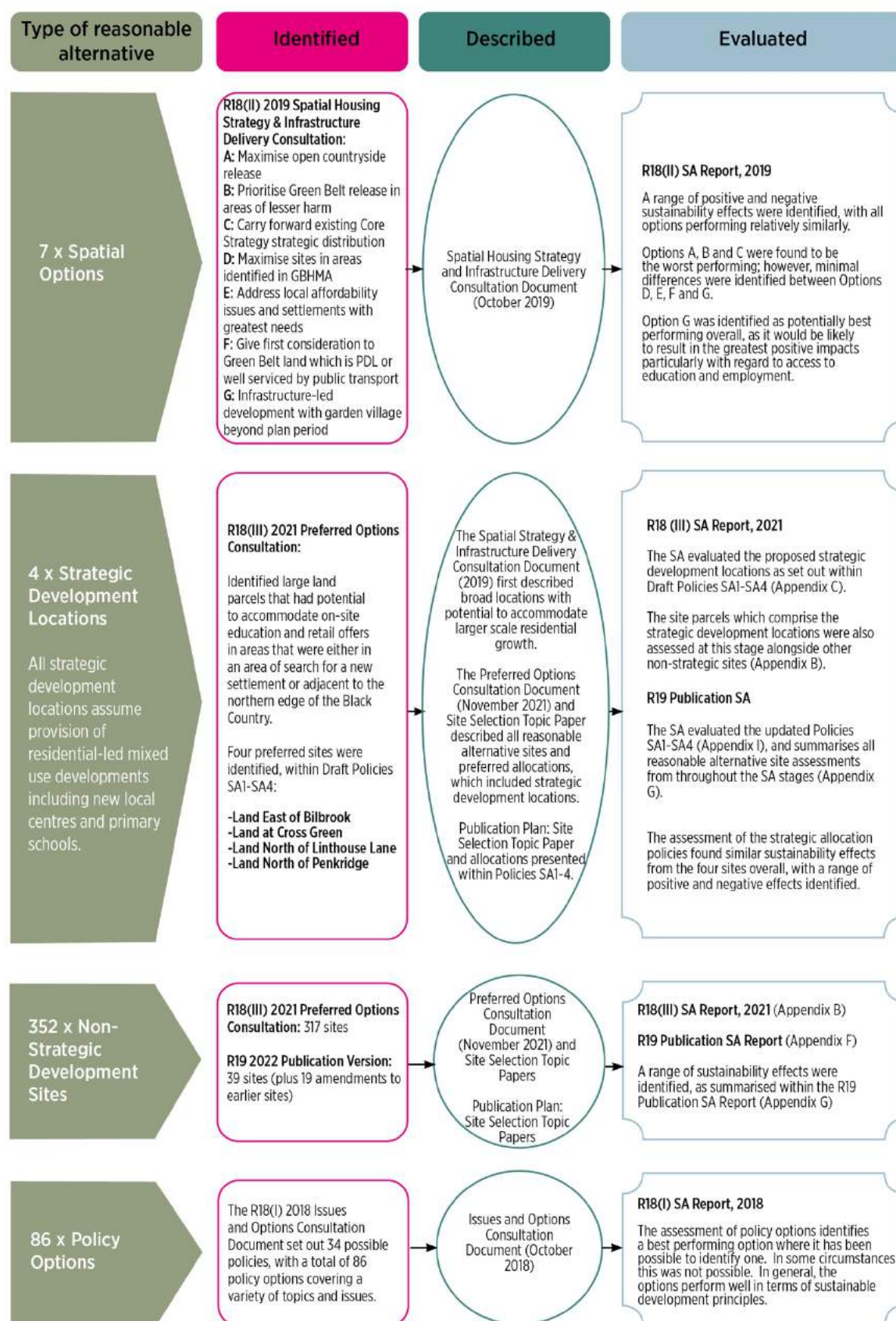


Figure 5.1: The identification, description and evaluation of reasonable alternatives considered throughout the plan-making process

5.3 Reasonable alternatives: growth options

Appraisal of residential growth options (2018 and 2022)

- 5.3.1 Five options for the quantity of residential growth were assessed within the Issues and Options SA Report²⁸ (Regulation 18(I), 2018), all of which meet or exceed the OAN for residential growth in South Staffordshire for the Plan period.
- 5.3.2 A further residential growth option was identified since the PO consultation and has been assessed within this SA Report, known as Option F (see **Appendix E**).
- 5.3.3 The six residential growth options are summarised in **Table 5.1**.

Table 5.1: Residential Growth Options identified by SSDC (Options A-E extracted from the Regulation 18 (I) Issues and Options SA Report (2018) and F considered within Appendix E of this report)

Option	LPR Stage	Description
A	Reg 18(I): Issues and Options, 2018	Provide enough housing to meet South Staffordshire's objectively assessed housing need. This option would equate to: <ul style="list-style-type: none"> • 5,130 dwellings between 2018-2037 • Average yearly minimum requirement of 270 dwellings throughout the plan period
B	Reg 18(I): Issues and Options, 2018	Provide enough housing to meet South Staffordshire's objectively assessed housing needs, and a modest contribution to the HMA's unmet housing needs. This additional contribution could reflect the maximum yearly completions historically achieved within the district amounting to 1520 dwellings. This option would equate to: <ul style="list-style-type: none"> • Around 7,030 dwellings between 2018-2037 • Average yearly minimum requirement of 370 dwellings throughout the plan period
C	Reg 18(I): Issues and Options, 2018	Provide enough housing to meet South Staffordshire's objectively assessed housing needs, and provide enough land to accommodate a minimum of an additional 4,000 dwellings towards wider housing shortfalls from the HMA (having regard to the minimum capacity implied by the Green Belt and Open Countryside strategic areas of search set out in the HMA Strategic Growth Study). This would equate to: <ul style="list-style-type: none"> • A minimum requirement of 9,130 dwellings between 2018-2037 • A minimum average yearly requirement of 481 dwellings throughout the plan period
D	Reg 18(I): Issues and Options, 2018	Provide enough housing to meet South Staffordshire's objectively assessed housing needs, and provide enough land to accommodate an additional 12,000 dwellings towards wider housing shortfalls from the HMA (having regard to the mid-point capacity implied by the Green Belt and Open Countryside strategic areas of search set out in the HMA Strategic Growth Study). This would equate to: <ul style="list-style-type: none"> • A minimum requirement of 17,130 dwellings between 2018-2037 • A minimum average yearly requirement of 902 dwellings throughout the plan period
E	Reg 18(I): Issues and Options, 2018	Provide enough housing to meet South Staffordshire's objectively assessed housing needs, and enough land to accommodate an additional 20,000 dwellings towards wider housing shortfalls from the HMA (having regard to the upper capacity implied by the Green Belt and Open Countryside strategic areas of search set out in the HMA Strategic Growth Study). This would equate to: <ul style="list-style-type: none"> • A minimum requirement of 25,130 dwellings between 2018-2037 • A minimum average yearly requirement of 1,323 dwellings throughout the plan period

²⁸ Lepus Consulting (2018) Sustainability Appraisal of the South Staffordshire Local Plan Review: Issues and Options. Available at: <https://www.sstaffs.gov.uk/doc/179873/name/South%20Staffs%20SA%20Issues%26Options.pdf/> [Accessed 13/09/22]

Option	LPR Stage	Description
F	Regulation 19	<p>Provide enough housing to meet South Staffordshire's objectively assessed housing needs, and enough land to accommodate an additional 8,650 dwellings towards wider housing shortfalls from the HMA, reflecting South Staffordshire's migration and commuting links with the Black Country authorities and Birmingham. This would equate to:</p> <ul style="list-style-type: none"> • A minimum requirement of 13,739 dwellings between 2018-2039 • A minimum average yearly requirement of 654 dwellings throughout the plan period

5.3.4 **Table 5.2** summarises the SA findings. The full assessments are presented in full within the Regulation 18(I) Issues and Options SA (2018)²⁹ (Options A-E), and within **Appendix E** of this report (Option F).

Table 5.2: Summary SA findings for assessment of Residential Growth Options A-F (see Appendix E)

Residential Growth Option	SA Objective											
	1	2	3	4	5	6	7	8	9	10	11	12
	Climate Change Mitigation	Climate Change Adaptation	Biodiversity & Geodiversity	Landscape & Townscape	Pollution & Waste	Natural Resources	Housing	Health & Wellbeing	Cultural Heritage	Transport & Accessibility	Education	Economy & Employment
Option A	--	+/-	+/-	+/-	--	+/-	+	+/-	+/-	+/-	+/-	+/-
Option B	--	+/-	+/-	+/-	--	+/-	++	+/-	+/-	+/-	+/-	+/-
Option C	--	+/-	+/-	+/-	--	+/-	++	+/-	+/-	+/-	+/-	+/-
Option D	--	+/-	+/-	-	--	+/-	++	-	+/-	-	-	+/-
Option E	--	+/-	+/-	-	--	+/-	++	-	+/-	-	-	+/-
Option F	--	+/-	+/-	-	--	+/-	++	-	+/-	-	-	+/-

5.3.5 As discussed in **Appendix E**, the high-level assessment of housing growth is limited, resulting in uncertain impacts being identified for various SA Objectives.

5.3.6 Options D, E and F which propose the highest levels of growth (totalling 17,130, 25,130 and 13,739 dwellings respectively) would generally be expected to result in greater potential for adverse effects particularly in relation to environmental SA Objectives such as air quality, climate change, biodiversity, soil resources and landscape. These three options would also be likely to present the greatest challenge with respect to capacity issues and pressure on existing services and infrastructure required to deliver the proposed levels of growth and meet the day to day needs of the population.

5.3.7 Option A would meet South Staffordshire's OAN; however, this option does not include any provisions to meet other authorities' needs within the HMA. As such, this option performs the worst with respect to SA Objective 7 and would not seek to accommodate the unmet needs from neighbouring authorities in accordance with the NPPF.

²⁹ Lepus Consulting (2018) Sustainability Appraisal of the South Staffordshire Local Plan Review: Issues and Options. Available at: <https://www.sstaffs.gov.uk/doc/179873/name/South%20Staffs%20SA%20Issues%26Options.pdf/> [Accessed 13/09/22]

- 5.3.8 On balance, and drawing on the limitations discussed, Options B and C could be considered the best options as these would be likely to have less potential for environmental impacts that are irreversible compared to D, E and F, such as loss of the soil resource, whilst still seeking to positively prepare the LPR by providing residential development to meet the needs of other authorities within the HMA.

Appraisal of employment growth options (2018)

- 5.3.9 Three options for employment growth were assessed within the Issues and Options SA Report³⁰ (Regulation 18(I), 2018), as shown in **Table 5.3**.
- 5.3.10 The employment land needs for South Staffordshire were determined through an Economic Development Needs Assessment (EDNA). The EDNA (2018)³¹ identified an oversupply of employment land in the District for the Plan period, although South Staffordshire may have a role to play in helping to satisfy the employment needs of the wider Functional Economic Market Assessment (FEMA).

Table 5.3: Employment Growth Options identified by SSDC (extracted from the Regulation 18 (I) Issues and Options SA Report, 2018)

Option	Description
A	<p>To reflect the oversupply of employment land in the district deallocate the poorest quality employment land as identified by the EDNA and reallocate poorer quality sites that would be suitable for alternative uses</p> <p>This could involve a targeted approach of deallocating employment sites that are of poorer quality, and could focus on those that include vacant units/land, where these would represent a sustainable location for an alternative use such as housing. However, there is a risk that this approach would reduce flexibility in the employment land supply, and could result in an under provision if employment sites were lost unexpectedly.</p>
B	<p>Maintain current protections for the existing employment land stock.</p> <p>This reflects the oversupply of employment land in the district but would not deallocate sites in order to provide a degree of flexibility in provision.</p>
C	<p>Allocate additional employment land to meet cross boundary employment needs, where an undersupply in other areas of the Functional Economic Market Area (FEMA) is robustly demonstrated.</p> <p>This approach would seek to meet evidenced unmet needs for employment land originating from other areas of the FEMA. A surplus of employment land identified through the EDNA Stage 1 could form (in full or in part) to our contribution to these wider employment needs.</p>

- 5.3.11 Option A would help to ensure that the employment land provision satisfies the local development needs, whilst seeking to make the local economy more vibrant, sustainable and balanced. Brownfield land would be freed up for redevelopment, which could help to reduce adverse impacts caused by the LPR on SA Objectives 1, 3 4 and 6. However, there could potentially be a net loss of employment floorspace over the Plan period, meaning the Council may find it more difficult under this option to contribute to the unmet needs of the wider FEMA by reducing the flexibility in employment land supply.

³⁰ Lepus Consulting (2018) Sustainability Appraisal of the South Staffordshire Local Plan Review: Issues and Options. Available at: <https://www.sstaffs.gov.uk/doc/179873/name/South%20Staffs%20SA%20Issues%26Options.pdf/> [Accessed 13/09/22]

³¹ Warwick Economics and Development (2018) The Economic Development Needs Assessment (EDNA) Available at <https://www.sstaffs.gov.uk/doc/179880/name/South%20Staffs%20EDNA%20Final%20Report%2007%2009.pdf/> [Accessed 11/08/22]

- 5.3.12 Option B would help to ensure that employment floorspace needs in the Plan area are satisfied over the Plan period, whilst also affording the Council some opportunities to contribute to the unmet needs of the wider FEMA. However, it would be expected that this Option would not satisfy the overall unmet need from outside the district and would not free up previously undeveloped land for reallocation and redevelopment for another use.
- 5.3.13 Option C would enable the LPR to satisfy a larger portion of the unmet employment floorspace needs from the wider FEMA. Such a strategy would be expected to require a greater quantity of greenfield sites to be developed on in the Plan area, thereby leading to more adverse impacts on SA Objectives 1, 3, 4 and 6.
- 5.3.14 As shown in **Table 5.4**, overall Option A was found to result in positive impacts across the most SA Objectives; however, Option C would make the greatest contribution the unmet employment floorspace needs. The most uncertainty was identified for Option B.

Table 5.4: SA performance of the employment growth options (extracted from the Regulation 18 (I) Issues and Options SA Report, 2018)

Employment Growth Option	SA Objective											
	1	2	3	4	5	6	7	8	9	10	11	12
	Climate Change Mitigation	Climate Change Adaptation	Biodiversity & Geodiversity	Landscape & Townscape	Pollution & Waste	Natural Resources	Housing	Health & Wellbeing	Cultural Heritage	Transport & Accessibility	Education	Economy & Employment
Option A	+	+/-	+	+	+/-	+	+	+/-	+/-	+/-	+/-	+
Option B	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+
Option C	-	+/-	-	-	+/-	-	+/-	+/-	+/-	+/-	+/-	++

5.4 Reasonable alternatives: spatial distribution options

Appraisal of residential distribution options (2018)

- 5.4.1 Six options for residential distribution were assessed within the Issues and Options SA Report³² (Regulation 18(I), 2018), as follows:

- **Residential Distribution Option A** – Rural housing growth focused on the district's larger and better connected villages;
- **Residential Distribution Option B** – Rural housing growth dispersed across all settlements with a basic level of service provision within the district;
- **Residential Distribution Option C** – Small-scale urban extensions on the fringe of neighbouring urban areas;
- **Residential Distribution Option D** – Larger urban extensions on the fringe of neighbouring urban areas;

³² Lepus Consulting (2018) Sustainability Appraisal of the South Staffordshire Local Plan Review: Issues and Options. Available at: <https://www.sstaffs.gov.uk/doc/179873/name/South%20Staffs%20SA%20Issues%26Options.pdf/> [Accessed 13/09/22]

- **Residential Distribution Option E** – New freestanding settlements away from the existing villages/urban areas; and
- **Residential Distribution Option F** – Introduce minimum housing densities on all housing sites and intensify development within the existing village development boundaries.

- 5.4.2 As shown in **Table 5.5**, mixed effects were identified in the SA assessments of all spatial options, although Option C was found to have positive effects across nine of the 13 SA Objectives.
- 5.4.3 Option A would be expected to have sustainability benefits for several SA Objectives, through ensuring new housing is located in close proximity to existing services and sustainable transport options, to a greater extent than other options such as Option B.
- 5.4.4 Options C and D both focus on urban extensions, which would result in development on previously undeveloped land where loss of vegetation and soil may occur to a greater extent than some other options. Option D was identified to result in more potential for adverse impacts than C on the setting of cultural heritage assets owing to the larger scale extensions proposed; conversely, effects on education and employment were identified as more positive under Option D than C with a greater proportion of development being located in proximity to these services.
- 5.4.5 Option E performed similarly to Option D in the sense that bringing forward a new settlement may be a good opportunity to develop a relatively self-sustainable community that supports a diverse community and provides excellent access to necessary services and facilities as well as high quality natural habitats.
- 5.4.6 Option F would have potential to allow for more sustainable communities with more residents living in close proximity to services, facilities and public transport modes, as well as reducing overall land-take for development. However, there could potentially be over-capacity issues at some facilities and limited job opportunities in some locations depending on the scale of development.

Table 5.5: SA performance of the residential distribution options (extracted from the Regulation 18 (I) Issues and Options SA Report, 2018)

Residential Spatial Distribution Option	SA Objective											
	1	2	3	4	5	6	7	8	9	10	11	12
	Climate Change Mitigation	Climate Change Adaptation	Biodiversity & Geodiversity	Landscape & Townscape	Pollution & Waste	Natural Resources	Housing	Health & Wellbeing	Cultural Heritage	Transport & Accessibility	Education	Economy & Employment
Option A	+	-	-	-	-	--	++	+	-	++	++	++
Option B	-	-	-	-	-	--	++	-	+	-	-	+
Option C	+	+	-	-	-	--	++	++	+	++	+	+
Option D	+	+	-	-	-	--	++	++	-	++	++	++
Option E	-	+	-	-	-	--	++	++	-	++	++	++
Option F	-	-	-	-	-	+	+	-	-	-	-	-

Appraisal of employment distribution options (2018)

5.4.7 Four options for employment distribution were assessed within the Issues and Options SA Report³³ (Regulation 18(I), 2018), as follows:

- **Employment Distribution Option A** – Continue with the existing policy approach and focus employment growth around the four existing freestanding strategic employment sites (ROF, i54, Hilton Cross and Four Ashes);
- **Employment Distribution Option B** – Identify new freestanding employment sites;
- **Employment Distribution Option C** – Deliver small scale employment allocations in the district's larger villages; and
- **Employment Distribution Option D** – Deliver employment allocations as part of mixed-use schemes.

5.4.8 Option A focuses on existing employment sites, which benefit from existing supporting infrastructure including access to the strategic road network and would be likely provide opportunities for the reuse of previously developed land. Development in these locations is likely to be largely in keeping with the existing setting of the local area and would result in less fragmentation of the local ecological network. However, this option would be unlikely to revitalise local economies within settlements.

³³ Lepus Consulting (2018) Sustainability Appraisal of the South Staffordshire Local Plan Review: Issues and Options. Available at: <https://www.sstaffs.gov.uk/doc/179873/name/South%20Staffs%20SA%20Issues%26Options.pdf/> [Accessed 13/09/22]

- 5.4.9 Option B would afford the Council more flexibility over the location of new employment floorspace, enabling them to situate the right types of jobs in the right locations. However, this option would be expected to require development on relatively large greenfield sites, with potential for adverse impacts on natural resources, landscape character and fragmentation of the ecological network.
- 5.4.10 Option C may help to enhance the vibrancy and sustainability of the local economy within existing settlements and provide residents with good access to employment opportunities. However, it is likely that this strategy would require development of greenfield sites in small settlements, with potential for adverse impacts on the local landscape/townscape character. It is also uncertain how accessible these sites would be via the strategic road network and the extent to which they would be popular with the market.
- 5.4.11 Option D would benefit new residents within strategic sites by co-locating homes and jobs; however, existing residents may be relatively isolated from this new floorspace. By incorporating the new employment floorspace alongside a strategic development, there could potentially be good opportunities for more efficient use of natural resources. However, at the time of assessment this was largely uncertain.
- 5.4.12 **Table 5.6** summarises the SA findings for these four options, with Option A identified as potentially the best performing.

Table 5.6: SA performance of the employment distribution options (extracted from the Regulation 18 (I) Issues and Options SA Report, 2018)

Employment Spatial Distribution Option	SA Objective											
	1	2	3	4	5	6	7	8	9	10	11	12
	Climate Change Mitigation	Climate Change Adaptation	Biodiversity & Geodiversity	Landscape & Townscape	Pollution & Waste	Natural Resources	Housing	Health & Wellbeing	Cultural Heritage	Transport & Accessibility	Education	Economy & Employment
Option A	0	0	0	0	0	+	0	0	0	0	0	++
Option B	0	0	-	-	0	-	0	0	0	0	0	++
Option C	0	0	0	0	0	-	0	0	0	0	0	++
Option D	0	0	0	0	0	+/-	0	0	0	0	0	++

Appraisal of spatial options (2019)

- 5.4.13 The Regulation 18 (II) SA Report (2019)³⁴ set out the appraisal of seven spatial options for the broad distribution of new housing growth in the Plan area, as identified in the Spatial Housing Strategy and Infrastructure Delivery (SHSID) document prepared by the Council.
- 5.4.14 The SHSID document was produced to set out new options for the approach to housing growth, following on from the previous Issues and Options stage where potential options for housing distribution were first considered. The SHSID spatial options were prepared to take on board information from responses to the Issues and Options consultation as well as new locally prepared evidence including the Green Belt and Landscape Studies.
- 5.4.15 The spatial options that were considered by the Council in the SHSID document, and assessed in the accompanying SA, are as follows:
- **Spatial Option A** – Maximise Open Countryside release;
 - **Spatial Option B** – Prioritise Green Belt land release in areas of lesser Green Belt harm;
 - **Spatial Option C** – Carry forward existing Core Strategy strategic approach to distribution;
 - **Spatial Option D** – Maximise sites in areas identified in the Greater Birmingham Housing Market Area (GBHMA) Strategic Growth Study;
 - **Spatial Option E** – Address local affordability issues and settlements with the greatest needs;
 - **Spatial Option F** – Give first consideration to Green Belt land which is previously developed or well-served by public transport; and
 - **Spatial Option G** – Infrastructure-led development with a garden village area of search beyond the plan period.
- 5.4.16 The SA assessments found that Spatial Options A, B and C would be expected to be the worst-performing options, as the proposed development under these three options could have potentially resulted in a greater proportion of likely adverse impacts and a lower proportion of positive impacts than the other four options (see **Table 5.7**). The identified negative impacts in regard to these options would relate to directing a higher proportion of new residents to more rural locations in South Staffordshire with limited access to essential services, such as education, employment and health centres.

³⁴ Lepus Consulting (2019) Sustainability Appraisal of the South Staffordshire Local Plan Review: Spatial Housing Strategy and Infrastructure Delivery. Available at: <https://www.sstaffs.gov.uk/doc/181110/name/SHSID%20Sustainability%20Appraisal.pdf> [Accessed 10/08/22]

5.4.17 It was difficult to differentiate between the sustainability performance of Spatial Options D, E, F and G, as the proposed development under all of these options would be likely to result in the same or similar sustainability impacts. Likely positive impacts of these spatial options were due to the provision of housing need in locations where the majority of new residents would be expected to have good access to education, employment opportunities and sustainable transport options, including rail and bus services. However, Spatial Option G was identified as the best performing option, as the proposed development would be likely to result in the greatest positive impacts in terms of sustainability, in particular in regard to access to education and employment.

Table 5.7: SA performance of the spatial options (extracted from the Regulation 18 (II) SHSID SA Report, 2019)

Spatial Option	SA Objective											
	1	2	3	4	5	6	7	8	9	10	11	12
	Climate Change Mitigation	Climate Change Adaptation	Biodiversity & Geodiversity	Landscape & Townscape	Pollution & Waste	Natural Resources	Housing	Health & Wellbeing	Cultural Heritage	Transport & Accessibility	Education	Economy & Employment
Option A	--	--	-	--	--	-	+	-	-	-	+	-
Option B	--	--	-	--	--	-	++	-	-	-	++	-
Option C	--	--	-	--	--	-	++	-	-	-	++	+
Option D	--	--	-	--	--	-	++	-	-	+	++	+
Option E	--	--	-	--	--	-	++	-	-	+	++	+
Option F	--	--	-	--	--	-	++	-	-	+	++	+
Option G	--	--	-	--	--	-	++	-	-	+	++	++

5.5 Reasonable alternatives: policy options

Appraisal of policy options at Issues and Options (2018)

5.5.1 A total of 86 policy options were assessed within the Issues and Options SA Report (2018)³⁵, covering 34 possible policies, as shown in **Table 5.8**.

Table 5.8: Policy options identified by SSDC (extracted from the Regulation 18 (I) Issues and Options SA Report, 2018)

Policy	Number of options
Housing mix	3
Specialist and elderly housing	4
Affordable housing percentage requirement	3
Affordable housing tenure split	3
Boosting affordable housing supply	2
Rural exception sites	3
Entry level exception sites percentage requirement	1
Entry level exception sites tenure split	2
Entry level exception sites local connection	1
Self-build and custom house building	3
GTT sites identification	3
Design & residential amenity	3
Parking provision – public parking	4
Parking provision – residential parking	2
Space about dwellings	2
Internal space standards	3
Health and wellbeing	2
Leisure facilities	2
Children's Play and Youth Development	4
Employment sites safeguarding and identification	3
Inclusive growth	3
Rural employment and tourism	2
Village centres and retail	3
Protecting community centres and facilities	2
Wolverhampton Business Airport	2
Infrastructure	2
Public transport and the highway network	2
Green Belt	2
Open Countryside	3
Landscape character	2
Natural environment	2
Fabric and energy conservation	3
Renewable, low carbon energy generation	3
Historic environment	2

5.5.2 The full assessment findings are presented within the Regulation 18 (I) Issues and Options SA Report (2018). Generally, the policy options performed similarly with major positive, minor positive or negligible impacts identified across the SA Objectives, with fewer policy options identified to result in minor negative effects on certain objectives.

³⁵ Lepus Consulting (2018) Sustainability Appraisal of the South Staffordshire Local Plan Review: Issues and Options. Available at: <https://www.sstaffs.gov.uk/doc/179873/name/South%20Staffs%20SA%20Issues%26Options.pdf/> [Accessed 13/09/22]

- 5.5.3 The assessments identified the best performing option for each policy where possible, or in some circumstances recommended that a combination of options could potentially result in the most sustainability benefits. The assessment findings were fed back to the Council and consulted on alongside the Issues and Options Paper, in order to assist with decision-making as the emerging LPR policies were developed and refined.

Appraisal of draft policies at Regulation 18 (III) (2021)

- 5.5.4 The Regulation 18 (III) SA Report assessed 51 draft policies within the PO version of the Local Plan: seven Site Allocation Policies, four Strategic Policies and 40 Development Management (DM) Policies.
- 5.5.5 The majority of the draft DM policies set out the requirements for development and seek to protect the natural and built environment and ensure there is sufficient community infrastructure to support new residents. As these policies largely seek to protect existing assets or enhance the provision of these features, the policy assessments largely identified minor positive or negligible impacts.
- 5.5.6 The Strategic Policies, which set out aspects of the Local Plan such as the proposed Spatial Strategy and the proposed strategic sites, were generally assessed as having the potential for a greater range of adverse effects in relation to environmental aspects of sustainability and greater positive effects in relation to meeting housing and employment needs.
- 5.5.7 **Appendix I** of this SA Report presents the assessment of the 55 revised LPR policies for the Regulation 19 stage, which have been updated to consider consultation comments, latest evidence base information and SA assessment findings.

5.6 Reasonable alternatives: development sites

- 5.6.1 The identification, description and evaluation of development sites has taken place throughout the plan making process at different stages. A total of 356 reasonable alternative sites have been considered, as follows:
- The Regulation 18 (III) SA Report (2021)³⁶ included an assessment of 317 reasonable alternative sites, identified by the Council.
 - This Regulation 19 SA Report includes an assessment of 58 reasonable alternative sites, identified by the Council since the previous stage (see **Appendix F**). Of these 58 sites:
 - 39 are new sites that have been identified since the PO Stage and have been considered in addition to the 317 sites assessed within the Regulation 18 (III) SA; and
 - 19 are amended versions of sites previously assessed in the Regulation 18 (III) SA Report. The amendments relate primarily to boundary alterations whereby landowners or site promoters have re-submitted their sites.

³⁶ Lepus Consulting (2021) Sustainability Appraisal of the South Staffordshire Local Plan Review: Preferred Options Plan. Regulation 18 (III) SA Report, August 2021. Available at: <https://www.sstaffs.gov.uk/doc/182657/name/Sustainability%20Appraisal%20PO%202021.pdf/> [Accessed 14/07/22]

- 5.6.2 The Regulation 18 (III) SA Report set out the appraisal of 317 reasonable alternative sites identified by SSDC within the Preferred Options consultation paper, comprising:
- 259 residential-led sites (grouped into 28 clusters³⁷);
 - 28 employment-led sites; and
 - 30 Gypsy, Traveller and Travelling Showpeople (GTTS) sites.
- 5.6.3 The Regulation 19 SA Report (this report) sets out the assessment of 58 reasonable alternative sites, comprising: 33 residential-led sites (16 of which are new); 15 employment-led sites (13 of which are new); and ten GTTS sites (all new).
- 5.6.4 A range of positive and adverse effects on sustainable development arising from the reasonable alternative sites have been presented in the SA report. Adverse effects were mainly related to issues associated with the rural nature of much of the development, including the loss of previously undeveloped land and BMV soil, the location of development in areas of high landscape sensitivity and/or where development could cause harm to the Green Belt purposes, as well as the access of site end users to a number of social facilities including schools, healthcare services, local shops and transport services. Positive impacts were identified in relation to the provision of new housing and employment floorspace, as well as benefits to health and accessibility as many sites are located within a sustainable distance to public greenspaces, the PRoW network and/or cycle routes. Many sites were assessed positively for climate change adaptation owing to their location in Flood Zone 1 where fluvial flood risk is low.
- 5.6.5 All reasonable alternative development sites have been assessed before and after mitigation. The main purpose of this exercise is to avoid any risk of ‘green wash’: a process whereby immediate application of policy prescription can give the impression that no adverse effects will arise, without knowing the extent of adverse effect that existed in the first place. This process helps achieve transparency in the appraisal process and follows established best practice (RTPI Guidance 2018³⁸) of presenting assessment results before and after mitigation has been applied. SA of the policies enables scrutiny of how effective the policies are as mitigation tools. **Appendix I** presents appraisal results for all policies proposed in the LPR.
- 5.6.6 All reasonable alternative sites have been assessed in terms of potential impacts on each SA Objective, the results of which are presented in their entirety in **Appendix G**. The SA impact matrix for each site, assessed ‘pre-mitigation’, is presented in **Table G.2.1**.
- 5.6.7 Scores should be read in conjunction with the detailed text narrative provided for each site in the relevant SA report. These tables are intended as an overview of the assessments to provide a useful indicator of sustainability performance associated with each site.
- 5.6.8 Mitigation, using the emerging LPR policies, has been applied to the SA results for each reasonable alternative site and presented in **Table G.4.1** within **Appendix G**.

³⁷ It should be noted that the clusters assessed within the SA are not synonymous with the settlements identified in the Preferred Options Plan. The cluster analysis is based on geographically proximate clusters of site options. The sites have all been assessed individually, but sites within a cluster are expected to have similar impacts on terms of access to services and facilities and proximity to local environmental assets.

³⁸ RTPI (2018) Strategic Environmental Assessment: Improving the effectiveness and efficiency of SEA/SA for land use plans. Available at: <https://www.rtpi.org.uk/research/2018/january/strategic-environmental-assessment-seasa-for-land-use-plans/> [Accessed 12/09/22]

Strategic development sites

- 5.6.9 Following the identification and evaluation of 317 reasonable alternative sites at the Regulation 18 (III) stage, SSDC decided to identify a small number of strategic development sites which had potential to accommodate on-site education and retail offers alongside residential growth. These strategic sites were composed from one or more reasonable alternative sites that were assessed during the Regulation 18 (III) stage.
- 5.6.10 The Council proposed four strategic development sites for mixed use residential-led developments, to include new local centres and schools, as follows:
- Land East of Bilbrook (Site 519);
 - Land at Cross Green (Sites 646a/b);
 - Land North of Linthouse Lane (Site 486c); and
 - Land North of Penkridge (Sites 420, 584 and 010).
- 5.6.11 The strategic development sites were evaluated in their entirety as part of the policy assessments in the SA, in draft form at Regulation 18 (III) and with latest policy wording for the Regulation 19 stage within this report (see **Appendix I**). The evaluation of these strategic development site allocation policies is discussed further within **Chapter 6**.
- 5.7 Selection and rejection of sites**
- 5.7.1 The SA process has been used to evaluate reasonable alternative sites on a comparable basis against the SA Framework to identify likely sustainability impacts. It is SSDC's role to use the SA findings, alongside other evidence base material, to decide which sites to 'select' for allocation in the LPR and which to 'reject' from further consideration.
- 5.7.2 **Appendix G** summarises the SA findings for all reasonable alternative development sites that have been appraised throughout the SA process. A total of 356 sites have been appraised in the SA, with 317 at Regulation 18(III) and 58 at Regulation 19 (of which some sites were re-assessed due to minor boundary changes, as discussed in **para 5.6.1**).
- 5.7.3 The SA findings relating to reasonable alternative sites were fed back to the Council on an iterative basis to assist in decision-making regarding the selection or rejection of each site within the emerging LPR.
- 5.7.4 **Appendix H** sets out the outline reasons for selection and rejection of all reasonable alternative sites considered throughout the SA process, provided by SSDC.

6 The preferred approach

6.1 LPR Policies

6.1.1 Following consideration of comments received during the Regulation 18 consultations and recommendations set out in the SA reports, SSDC has revised the LPR policies. The LPR contains a total of 55 policies, including six strategic Development Strategy Policies and eight Site Allocation Policies. The 55 policies have been assessed in **Appendix I**.

6.1.2 The final LPR policies are listed in **Table 6.1**.

Table 6.1: South Staffordshire LPR policies

Policy Reference	Policy Name
Development Strategy Policies	
DS1	Green Belt
DS2	Green Belt Compensatory Improvements
DS3	Open Countryside
DS4	Development Needs
DS5	Spatial Strategy to 2039
DS6	Longer Term Growth Aspirations for a New Settlements
Site Allocation Policies	
MA1	Master Planning Strategic Sites
SA1	Strategic Masterplanning Location - Land East of Bilbrook
SA2	Strategic Masterplanning Location - Land at Cross Green
SA3	Strategic Masterplanning Location - Land north of Linthouse Lane
SA4	Strategic Masterplanning Location - Land north of Penkridge
SA5	Housing Allocations
SA6	Gypsy And Traveller Allocations
SA7	Employment Allocations
Delivering the Right Homes	
HC1	Housing Mix
HC2	Housing Density
HC3	Affordable Housing
HC4	Homes for Older People and others with Special Housing Requirements
HC5	Specialist Housing
HC6	Rural Exception Sites
HC7	First Homes Exception Sites
HC8	Self & Custom Build Housing
HC9	Gypsy, Traveller and Travelling Showpeople
Design and Space Standards	
HC10	Design Requirements
HC11	Protecting Residential Amenity
HC12	Space About Dwellings and Internal Space Standards
HC13	Parking Standards
Promoting Successful and Sustainable Communities	
HC14	Health Infrastructure

Policy Reference	Policy Name
HC15	Education
HC16	South Staffordshire College
HC17	Open Space
HC18	Sports Facilities and Playing Pitches
HC19	Green Infrastructure
Building a Strong Local Economy	
EC1	Sustainable Economic Growth
EC2	Retention of Employment Sites
EC3	Employment and Skills
EC4	Rural Economy
EC5	Tourism
EC6	Rural Workers Dwellings
EC7	Equine Related Development
Community Services, Facilities and Infrastructure	
EC8	Retail
EC9	Protecting Community Services and Facilities
EC10	Wolverhampton Halfpenny Green Business Airport
EC11	Infrastructure
EC12	Sustainable Transport
EC13	Broadband
Protecting and Enhancing the Natural Environment	
NB1	Protecting, Enhancing and Expanding Natural Assets
NB2	Biodiversity
NB3	Cannock Chase SAC
NB4	Landscape Character
Climate Change and Sustainable Development	
NB5	Renewable and Low Carbon Energy Generation
NB6	Sustainable Construction
NB7	Managing Flood Risk, Sustainable Drainage Systems and Water Quality
Enhancing the Historic Environment	
NB8	Conservation, Preservation and Protection of Historic Assets
NB9	Canal Network

6.2 Development Strategy Policies

- 6.2.1 Policies DS1 to DS3 set out SSDC's vision for the district over the Plan period, ensuring a strong policy position is made for the protection of the Green Belt and setting out a framework for the protection of the special character of the district's open countryside as far as possible.
- 6.2.2 Wherever possible, SSDC has sought to locate development on suitable brownfield sites to reduce pressure on the Green Belt, which covers approximately 80% of South Staffordshire. However, opportunities for brownfield developments are very limited due to the largely rural nature of the district.

- 6.2.3 SSDC's spatial strategy seeks to locate development primarily in accordance with the settlement hierarchy, where new residents would generally be expected to have better access to existing services and facilities and access to sustainable transport. This approach has the potential to reduce GHG emissions in comparison to an approach which requires a more dispersed pattern of development.
- 6.2.4 A range of sustainability impacts have been identified in the policy assessments, as shown in **Table 6.2**, with Policies DS1, DS2 and DS3 generally resulting in minor positive or negligible effects owing to the policies setting out protection for the Green Belt and open countryside.
- 6.2.5 More varied effects are anticipated as a result of Policies DS4 to DS6, which set out the overall requirements for housing, employment and Gypsy and Traveller growth within the Plan period, and allocations put forward to meet these needs in accordance with the settlement hierarchy. Whilst these policies would be likely to ensure that the needs of the population are met, they also raise the potential for adverse impacts on many of the environmentally focused SA Objectives as a result of the large scale of proposed growth.
- 6.2.6 The sustainability performance of these policies is provided in **Appendix I** and summarised in **Table 6.2**.

Table 6.2: Summary of development strategy policy assessments (see [Appendix I](#))

Policy Reference	1 Climate Change Mitigation	2 Climate Change Adaptation	3 Biodiversity & geodiversity	4 Landscape & Townscape	5 Pollution & Waste	6 Natural Resources	7 Housing	8 Health & Wellbeing	9 Cultural Heritage	10 Transport & Accessibility	11 Education	12 Economy & employment
Development Strategy Policies												
DS1	0	0	-	-	+	-	+	+	0	+	+	+
DS2	0	0	0	0	0	0	0	+	0	+	0	0
DS3	0	0	0	+	0	+	+	+	0	0	+	+
DS4	-	+/-	+/-	--	--	--	++	-	+/-	+/-	+/-	++
DS5	--	-	-	-	-	--	++	-	-	-	-	++
DS6	+	+/-	-	-	+/-	+/-	+	+	+/-	+	++	+

6.3 Site Allocation Policies

- 6.3.1 SSDC has identified a wide range of locations to contribute towards the delivery of 9,089 new homes within the LPR, which would meet the identified housing requirement of 5,089 homes in South Staffordshire as well as a 4,000-home contribution towards unmet housing needs of the Greater Birmingham and Black Country HMA.
- 6.3.2 Strategic policies SA1 to SA5 set out SSDC's preferred locations for housing development, SA6 Gypsy and Traveller development, and SA7 employment development. The sustainability performance of these policies is provided in **Appendix I** and summarised in **Table 6.3**.

6.3.3 A range of positive and negative effects have been identified during the assessment of the strategic allocation policies SA1-SA4. In general, the strategic sites perform well against housing provision and access to education and employment; however, the large scale of development at these undeveloped locations could potentially result in adverse effects on some SA Objectives, for example landscape, natural resources and pollution.

6.3.4 The sites allocated within Policies SA1, SA2, SA3 and parts of SA4 lie within the Green Belt. Of the 33 non-strategic sites identified in SA5, 13 allocations lie in the Green Belt. Development of these areas has been assessed by the Green Belt Study as having the potential to harm the purposes of the Green Belt, to varying degrees. In order to accommodate the required housing needs, the boundaries to the Green Belt will be revised. As set out in the NPPF and summarised in the Green Belt study, such revisions are only undertaken as part of a Local Plan Review and under 'exceptional circumstances'. The Green Belt Study sets out a number of recommendations to help to mitigate the effects of removal of land from the Green Belt. Potential harm to the purposes of the Green Belt as a result of the development of sites must also be considered alongside the other sustainability criteria.

Table 6.3: Summary of site allocation policy assessments (see Appendix I)

Policy Reference	1 Climate Change Mitigation	2 Climate Change Adaptation	3 Biodiversity & geodiversity	4 Landscape & Townscape	5 Pollution & Waste	6 Natural Resources	7 Housing	8 Health & Wellbeing	9 Cultural Heritage	10 Transport & Accessibility	11 Education	12 Economy & employment
Site Allocation Policies												
MA1	+	+	+	+	+	+	+	+	+	+	+	0
SA1	-	0	+/-	--	-	-	++	-	0	-	++	+
SA2	+/-	0	+/-	--	-	-	++	-	0	-	-	+
SA3	-	+	+/-	--	-	-	++	-	0	+	++	+
SA4	-	0	+/-	--	-	-	++	-	0	+	++	+
SA5	+/-	0	-	--	-	-	++	-	-	-	-	-
SA6	0	--	-	--	-	-	+	-	-	-	-	--
SA7	-	--	-	-	-	-	0	-	-	-	0	++

6.4 Development Management Policies

6.4.1 The majority of the policies set out the requirements for development and seek to protect the natural and built environment and ensure there is sufficient community infrastructure to support new residents. This includes ensuring the delivery of an appropriate housing mix; meeting housing needs for different groups, including for older people and Gypsies and Travellers; protecting community infrastructure and the vibrancy of settlements; and, protecting and enhancing natural assets such as biodiversity, heritage, the landscape (including the setting of Cannock Chase AONB) and managing flood risk and surface water, amongst others. As these policies largely seek to protect existing assets or enhance the provision of these features, the accompanying policy assessments largely identify minor positive or negligible impacts. The sustainability performance of the policies is provided in **Appendix I** and summarised in **Table 6.4**.

Table 6.4: Summary of policy assessments (see **Appendix I**)

Policy Reference	1 Climate Change Mitigation	2 Climate Change Adaptation	3 Biodiversity & geodiversity	4 Landscape & Townscape	5 Pollution & Waste	6 Natural Resources	7 Housing	8 Health & Wellbeing	9 Cultural Heritage	10 Transport & Accessibility	11 Education	12 Economy & employment
Delivering the Right Homes												
HC1	0	0	0	0	0	+/-	+	+	0	0	0	0
HC2	+/-	0	0	0	0	+/-	+	0	0	0	0	0
HC3	0	0	0	0	0	0	+	+	0	0	0	0
HC4	0	0	0	0	0	0	+	+	0	0	0	0
HC5	0	0	0	0	0	0	+	+	0	0	0	0
HC6	0	0	0	0	0	+/-	+	0	0	0	0	0
HC7	0	0	0	0	0	+/-	+	+	0	0	0	0
HC8	0	0	0	0	0	0	+	0	0	0	0	0
HC9	0	+	0	0	+	0	+	+	0	0	0	0
Design and Space Standards												
HC10	+	0	0	+	0	0	+	+	0	+	0	0
HC11	0	0	0	0	+	0	0	+	0	0	0	0
HC12	0	0	0	0	0	0	0	+	0	0	0	0
HC13	+	0	0	0	+	0	0	0	0	+	0	0
Promoting Successful and Sustainable Communities												
HC14	0	0	0	0	0	0	0	+	0	0	0	0
HC15	0	0	0	0	0	0	0	0	0	0	+	0
HC16	0	0	0	0	0	0	0	0	0	0	+	0
HC17	0	0	0	0	0	0	0	+	0	0	0	0
HC18	0	0	0	0	0	0	0	+	0	0	0	0
HC19	+	+	+	+	+	0	0	+	0	0	0	0
Building a Strong Local Economy												
EC1	+	+	+/-	+/-	+/-	+	0	+	+/-	+	0	++
EC2	0	0	0	0	0	0	0	0	0	0	0	++
EC3	+	0	0	0	0	0	0	0	0	+	0	+

Policy Reference	1 Climate Change Mitigation	2 Climate Change Adaptation	3 Biodiversity & geodiversity	4 Landscape & Townscape	5 Pollution & Waste	6 Natural Resources	7 Housing	8 Health & Wellbeing	9 Cultural Heritage	10 Transport & Accessibility	11 Education	12 Economy & employment
EC4	0	0	+	+	0	+	0	0	0	0	0	+
EC5	0	0	0	+	0	0	0	+	0	+	0	+
EC6	0	0	0	+	0	0	+	0	0	0	0	+
EC7	0	0	0	0	0	0	0	+	0	0	0	+
Community Services, Facilities and Infrastructure												
EC8	+	0	0	0	0	0	0	0	0	+	0	+
EC9	+	0	0	0	0	0	0	+	0	+	0	+
EC10	0	0	0	0	0	0	0	0	0	0	0	+
EC11	0	0	+	0	0	0	0	+	0	+	+	0
EC12	+	0	0	0	+	0	0	+	0	++	+	+
EC13	+	0	0	0	0	0	0	0	0	+	+	+
Protecting and Enhancing the Natural Environment												
NB1	+	+	++	+	+	+	0	+	0	0	0	0
NB2	+	0	+	0	0	0	0	0	0	0	0	0
NB3	0	0	+	0	+	0	0	+	0	0	0	0
NB4	0	0	+	++	0	0	0	0	+	0	0	0
Climate Change and Sustainable Development												
NB5	+	0	-	-	+/-	+/-	0	0	0	0	0	0
NB6	++	0	0	0	0	+	0	0	0	0	0	0
NB7	0	++	0	0	+	0	0	0	0	0	0	0
Enhancing the Historic Environment												
NB8	0	0	0	+	0	0	0	0	++	0	0	+
NB9	+	0	+	+	+	0	0	0	+	0	0	0

6.5 Assessment of Site Allocations

6.5.1 Following the assessment of reasonable alternatives in the SA and consideration of other evidence base documents, SSDC has selected four strategic development sites for allocation in the LPR as set out in Policies SA1 to SA4:

- SA1: Land East of Billbrook (Site 519);
- SA2: Land at Cross Green (Sites 646a/b);
- SA3: Land North of Linthouse Lane (Site 486c); and
- SA4: Land North of Penkridge (Sites 420, 584 and 010).

6.5.2 Furthermore, SSDC has selected a further 33 residential development sites as set out in Policy SA5, 12 sites for Gypsy and Traveller pitches set out in Policy SA6, and seven employment development sites set out in Policy SA7.

6.5.3 The post-mitigation SA findings for the sites chosen for allocation by SSDC are summarised in **Table 6.5**, illustrating a range of identified sustainability effects identified through the assessment process.

6.5.4 The full post-mitigation findings for all reasonable alternative sites considered throughout the SA process, including these sites that have been selected, are set out in **Appendix G**.

Table 6.5: Summary of post-mitigation site assessments for allocated sites (extracted from Appendix G)

Site Reference	SA Objective											
	1	2	3	4	5	6	7	8	9	10	11	12
	Climate Change Mitigation	Climate Change Adaptation	Biodiversity & Geodiversity	Landscape & Townscape	Pollution & Waste	Natural Resources	Housing	Health & Wellbeing	Cultural Heritage	Transport & Accessibility	Education	Economy & Employment
Billbrook and Codsall												
213	+/-	+	0	0	0	+	+	-	0	++	++	+
224	+/-	+	0	--	-	-	+	-	0	-	-	+
SAD 228	+/-	+	0	0	-	+	+	-	0	++	++	+
419a/b	+/-	+	0	-	0	-	+	-	0	-	--	-
519	+/-	0	0	--	-	-	+	-	0	-	-	-
Brewood												
617	+/-	0	0	--	0	-	+	-	0	-	--	-
079	+/-	+	0	--	0	-	+	-	0	-	-	-
Cheslyn Hay and Great Wyrley												
119a	+/-	+	0	-	0	-	+	-	0	-	++	+
523	+/-	+	0	-	0	-	+	-	0	-	++	+
SAD 141	+/-	+	0	0	-	-	+	-	0	++	++	+
136	+/-	+	0	-	-	-	+	-	0	++	-	+
SAD 136	+/-	+	0	0	-	-	+	-	0	++	++	+
SAD 139	+/-	+	0	0	-	-	+	-	0	-	++	-
536a	+/-	+	0	--	-	-	+	-	0	-	-	-

Site Reference	SA Objective											
	1	2	3	4	5	6	7	8	9	10	11	12
	Climate Change Mitigation	Climate Change Adaptation	Biodiversity & Geodiversity	Landscape & Townscape	Pollution & Waste	Natural Resources	Housing	Health & Wellbeing	Cultural Heritage	Transport & Accessibility	Education	Economy & Employment
638	+/-	+	0	0	-	+	+	-	0	++	-	-
704	+/-	+	0	0	-	+	+	-	0	-	++	-
730	+/-	+	0	-	-	+	+	-	0	-	++	-
Coven												
082	+/-	+	0	0	-	-	+	-	0	-	-	-
Essington												
486c	+/-	+	0	--	-	-	+	-	0	-	-	+
Featherstone												
SAD 168	+/-	+	0	0	0	+	+	-	0	-	-	-
397	+/-	+	0	-	0	-	+	-	0	-	-	-
646a/b	+/-	0	0	--	-	-	+	-	0	-	-	+
Huntington												
016	+/-	+	0	0	-	-	+	-	0	-	-	-
Kinver												
274	+/-	+	0	-	0	-	+	-	0	-	-	-
SAD 274	+/-	+	0	-	0	-	+	-	0	-	-	-
576	+/-	+	0	--	0	-	+	-	0	-	-	-
Penkridge												
005	+/-	+	0	-	-	-	+	-	0	-	++	-
006	+/-	+	0	-	0	-	+	-	0	-	-	-
010	+/-	0	0	--	-	-	+	-	0	-	--	-
420	+/-	0	0	-	-	-	+	-	0	++	++	+
584	+/-	+	0	--	-	-	+	-	0	-	--	-
Pattingham												
251	+/-	+	0	-	0	-	+	-	0	-	-	-
Penn and Lower Penn												
582	+/-	+	0	--	-	-	+	-	0	-	++	-
Perton												
239	+/-	+	0	-	0	-	+	-	0	-	--	-
Stafford												
036c	+/-	+	-	--	-	-	+	-	-	-	++	-
Swindon												
313	+/-	+	0	--	0	-	+	-	0	-	-	-
SAD 313	+/-	+	0	0	0	-	+	-	0	-	-	-
Wheaton Aston												
SAD 379	+/-	+	0	-	0	-	+	-	0	-	-	-
426a	+/-	+	0	-	0	-	+	-	0	-	-	-

Site Reference	SA Objective											
	1	2	3	4	5	6	7	8	9	10	11	12
	Climate Change Mitigation	Climate Change Adaptation	Biodiversity & Geodiversity	Landscape & Townscape	Pollution & Waste	Natural Resources	Housing	Health & Wellbeing	Cultural Heritage	Transport & Accessibility	Education	Economy & Employment
Wombourne												
284	+/-	0	0	--	-	-	+	-	0	-	++	-
285	+/-	+	0	-	0	-	+	-	0	-	-	-
286	+/-	+	0	-	0	-	+	-	0	-	++	-
416	+/-	+	0	-	0	-	+	-	0	-	-	-
459	+/-	+	0	-	0	-	+	-	0	-	++	-
562/415	+/-	+	0	-	0	-	+	-	0	-	++	-
463b	+/-	+	0	--	-	-	+	-	0	-	++	-
463c	+/-	+	0	--	-	-	+	-	0	-	++	-
463d	+/-	+	0	--	-	-	+	-	0	-	++	-
Employment Sites												
E14	+/-	+	0	0	-	-	0	-	0	-	0	++
E15a	+/-	+	0	--	-	+	0	-	0	-	0	++
E18	+/-	0	0	-	-	-	0	-	0	-	0	++
E20a	+/-	+	0	-	-	-	0	-	0	-	0	++
E20b	+/-	+	0	-	-	-	0	-	0	-	0	++
E24	+/-	0	0	-	-	-	0	-	0	-	0	++
E33	+/-	+	0	--	-	-	0	-	0	-	0	++
E44	+/-	+	0	-	-	-	0	-	0	-	0	++
Gypsy and Traveller Sites												
GT01	+/-	+	0	--	-	+	+/-	-	0	+	--	--
GT05	+/-	+	0	--	0	+	+/-	-	0	-	--	+
GT06	+/-	+	0	--	0	+	+/-	-	0	-	--	+
GT07	+/-	+	0	--	0	+	+/-	-	0	-	--	--
GT08	+/-	+	0	--	-	+	+/-	-	0	-	--	+
GT14	+/-	+	0	--	-	-	+/-	-	0	-	--	+
GT17	+/-	+	0	-	0	-	+/-	-	0	-	--	--
GT18	+/-	+	0	-	0	+	+/-	-	0	-	++	--
GT23	+/-	+	0	--	0	+	+/-	-	0	-	--	+
GT32	+/-	0	0	-	-	+	+/-	-	0	-	++	--
GT33	+/-	+	0	--	0	+	+/-	-	0	-	--	--
GT34	+/-	+	0	--	-	+	+/-	-	0	-	--	-

6.6 Whole plan appraisal

6.6.1 The following chapters present an assessment of the likely significant effects associated with the LPR in relation to the following topics:

- Air (**Chapter 7**);
- Biodiversity, flora and fauna (**Chapter 8**);
- Climatic factors (**Chapter 9**);
- Cultural heritage (**Chapter 10**);
- Human health (**Chapter 11**);
- Landscape (**Chapter 12**);
- Population and material assets (**Chapter 13**);
- Soil (**Chapter 14**); and
- Water (**Chapter 15**).

6.6.2 Each of the topic sections are presented in terms of baseline, impacts, mitigation and residual effects, where appropriate. The topics have been appraised in terms of plan-wide impacts and draw on all aspects of the SA process, including the findings presented for the assessment of policies and site allocations (see **Volume 3: Appendices** for the full assessments). The assessments include consideration of the impacts arising as a consequence of the inter-relationship between the different topics and identify secondary, cumulative and synergistic effects where they arise.

7 Air

7.1 Baseline

7.1.1 Poor air quality is directly linked to mortality, such as through heart disease, lung disease and various cancers. Particulate matter is predominantly associated with vehicular emissions, although agriculture, combustion from domestic heating and the construction industry are also significant sources. The fraction of mortality thought to be attributable to particulate air pollution is slightly less in South Staffordshire than it is for the West Midlands and England as a whole (see **Table 7.1**).

Table 7.1: Fraction of mortality attributable to particulate air pollution³⁹

Region	Fraction of mortality attributable to particulate air pollution
Staffordshire	4.9%
West Midlands	5.4%
England	5.6%

7.1.2 Poor air quality, and in particular excess atmospheric nitrogen deposition, can also have a variety of impacts on the natural environment which often result in losses in biodiversity, resulting from eutrophication, acidification and toxicity^{40,41}.

7.1.3 At the time of carrying out the SA assessments, three AQMAs were identified in South Staffordshire, predominantly associated with busy roads including the M6, A5 and A4601. These AQMAs are:

- AQMA No.1 – Woodbank;
- AQMA No.4 – Wedges Mills; and
- AQMA No.5 – Oak Farm.

7.1.4 There are several AQMAs adjacent to South Staffordshire, including:

- Cannock Chase AQMA;
- Cannock Chase District Council (CCDC) AQMA 1 and 2;
- Dudley AQMA;
- Walsall AQMA; and
- Wolverhampton AQMA.

³⁹ Public Health Profiles (2022) Fraction of mortality attributable to particulate air pollution (new method). Available at: <https://fingertips.phe.org.uk/search/air%20pollution#page/4/qid/1/pat/15/ati/401/are/E07000196/iid/93861/age/230/sex/4/cat/-1/ctp/-1/yr/1/cid/4/tbm/1> [Accessed 18/07/22]

⁴⁰ Sala, O. E.; *et al.*, (2000) Global biodiversity scenarios for the year 2100. *Science*. 287:1770-1774

⁴¹ Air Pollution Information System (2016) Nitrogen Oxides (NOx). Available at: http://www.apis.ac.uk/overview/pollutants/overview_NOx.htm [Accessed 16/08/22]

- 7.1.5 Actions in the Council's 2008 Air Quality Action Plan⁴² for improving air quality in each AQMA are generally centred around reducing congestion. Air quality in the district is improving, with the Council proposing to revoke three AQMAs in 2022⁴³. The latest information from DEFRA (stated to be correct as of July 2022) indicates one remaining AQMA in the district, known as 'AQMA No. 5 Oak Farm'⁴⁴. The Council is continuously monitoring air quality in the district and has found that air quality is relatively good on the whole for the pollutants which are monitored.
- 7.1.6 Air quality impacts from vehicles are most likely to occur within 200m of the road⁴⁵. It is therefore considered to be likely that, where residents are living within 200m of a relatively busy road, they will be exposed to poor air quality which is known to have long term health consequences.
- 7.1.7 The issue of air quality was considered under SA Objective 5 'Pollution and Waste', which seeks to minimise the extent and impacts of water, air and noise pollution. Indicators of this objective include the number of residents in areas of poor air pollution, proximity to pollutants (e.g. main roads), local increases in traffic or congestion and proximity to AQMAs.

Key issues relating to air quality

- ⇒ There is currently one AQMA within South Staffordshire District, declared due to excessive levels of NO₂.
- ⇒ 4.9% of mortality in the district is attributable to particulate matter air pollution.
- ⇒ New housing, employment development areas, commercial and domestic sources, transport, and increasing visitor numbers in the area have the potential to lead to adverse impacts on air quality.

7.2 Impacts on air

- 7.2.1 **Box 7.1** presents a plan-wide summary of the adverse impacts on air that have been identified through the SA process. These adverse impacts are those identified prior to mitigation considerations. **Box 7.2** lists the policies within the LPR which would be likely to mitigate, either fully or partially, some of the identified adverse impacts on air. Where there are no mitigating policies, or the contents of the LPR only partially mitigates the adverse impacts, a residual adverse effect is identified. **Box 7.3** explores the nature of these residual effects and, where applicable, provides further recommendations for mitigation or enhancement.

⁴² South Staffordshire District Council (2008) Air Quality Action Plan, Draft for consultation, April 2008. Available at: <https://www.sstaffs.gov.uk/doc/171950/name/Air%20Quality%20Action%20Plan%202008.pdf/> [Accessed 12/08/22]

⁴³ UK Air (2022) Local Authority Details: South Staffordshire District Council. Available at: https://uk-air.defra.gov.uk/aqma/local-authorities?la_id=250 [Accessed 18/07/22].

⁴⁴ DEFRA (2022) AQMA Dataset (correct as of July 2022). Available at: <https://uk-air.defra.gov.uk/aqma/maps/> [Accessed 16/09/22]

⁴⁵ The Highways Agency, Transport Scotland, Welsh Assembly Government, The Department for Regional Development Northern Ireland (2007) Design Manual for Roads and Bridges, Volume 11, Section 3, Part 1: Air Quality

Box 7.1: Summary of identified impacts on air



Reduction in air quality with implications for human health

- Impacts on air quality may arise during construction and operation of different types of development. The proposed development within South Staffordshire would be likely to increase the volume of traffic and traffic-related emissions within the Plan area with consequent adverse impacts on air quality. Exposure to sources of air pollution could potentially have adverse effects on the health of local residents, with children, the elderly and those of poor health identified as the most vulnerable. Development within or in close proximity to AQMAs would be likely to make it more difficult to achieve National Air Quality Objectives⁴⁶ within these areas.
- At the time of assessment, 10 allocated sites were identified to be located within, or within 200m of, an AQMA. This includes three sites within 200m of CCDC AQMA which borders South Staffordshire District to the north east, and six sites within 200m of Wolverhampton AQMA which borders the district to the east. One site, O10, was located within 200m of 'AQMA No. 1 (Woodbank)' which has since been revoked.
- 27 allocated sites are located within 200m of a main road, raising the potential for air quality impacts associated with atmospheric pollution from vehicular traffic.



Reduction in air quality with implications for biodiversity

- A reduction in local air quality, due to the construction and occupation of new dwellings, could potentially result in adverse impacts on local biodiversity assets and habitats. The occupation of new dwellings would be expected to increase local traffic volumes and, in turn, result in increased traffic-related emissions. An increase in air pollution from vehicle emissions could potentially have adverse impacts on biodiversity assets through mechanisms such as eutrophication, acidification and increased toxicity. Some sensitive ecosystems, including Habitats sites and SSSIs (see **Chapter 8**) are identified to be vulnerable to the impact of atmospheric nitrogen deposition, which would be expected with an increase in vehicular emissions.



Increased pollutant emissions

- The proposed development within South Staffordshire would be likely to increase the volume of traffic within the Plan area, and as a result, associated transport-related emissions including NO₂ and PM₁₀ would be released into the atmosphere, with adverse effects on local air quality.

⁴⁶ Defra (no date) UK and EU Air Quality Limits. Available at: <https://uk-air.defra.gov.uk/air-pollution/uk-eu-limits> [Accessed 13/04/22]

7.3 Local Plan mitigation

- 7.3.1 Various LPR policies aim to protect local air quality and seek to mitigate the impacts of air pollution, particularly in terms of protecting residential amenity. This includes several policies which seek to promote sustainable transport and active travel, to help reduce reliance on private car use. Policies also seek to increase the quality and quantity of green infrastructure across the Plan area which may indirectly benefit air quality.
- 7.3.2 The mitigating effects of the LPR on increases in greenhouse gases are discussed in **Chapter 9**. The mitigating effects of the LPR in relation to air quality on biodiversity and human health are discussed further in **Chapters 8** and **11** respectively. Policies which would be expected to help mitigate the impact of development on air quality are presented in **Box 7.2**.

Box 7.2: Mitigating effects of the LPR planning policies on air



Policy mitigation for impact of reduction in air quality

Policy HC11 'Protecting Amenity' seeks to protect residential amenity in relation to noise and other sources of pollution, which may help to reduce adverse impacts associated with the exposure of site end users to poor air quality, such as those within or adjacent to AQMAs or main roads.

Policy HC19 'Green Infrastructure' would serve to increase the quality of green infrastructure in developments and may serve to filter air pollution to some extent.

Policy NB3 'Cannock Chase SAC' sets out the councils support for developments only where it can be demonstrated that the proposal will not lead to likely significant effects upon the integrity of the Cannock Chase SAC, either alone or in combination with other plans or projects. This would be expected to include impacts associated with air pollution and nitrogen deposition, which is one of the vulnerabilities of the SAC's qualifying features.



Policy mitigation for impact of increased pollutant emissions

Policy EC1 'Sustainable economic growth' seeks to promote the provision of active travel measures and the creation/enhancement of multifunctional green spaces and the enhancement of the Green Infrastructure Network.

Policy HC13 'Parking Provision' also introduces the requirement for electric vehicle charging points, as well as support electric public transport where appropriate. This would serve to encourage the use of electric vehicles and reduce noise and air pollution to some extent.

Policy EC12 'Sustainable Transport' seeks to improve sustainable transport provision across the district, setting out a range of measures including strengthening bus and rail services, encouraging walking and cycling, the park and ride initiative at Cross Green and improving the availability of electric vehicle charging points. By encouraging the integration of sustainable transport options and reducing the need to travel by car, the policy may contribute towards a reduction in traffic related emissions.

Policy MA1 'Master Planning Strategic Sites' sets out various requirements for the development of the four strategic sites, including provision of a "*Movement Framework and Access Strategy*" which promotes public transport and active travel.

Box 7.2: Mitigating effects of the LPR planning policies on air

Policy EC13 'Broadband' seeks to ensure sufficient broadband connectivity in all new developments which could potentially reduce the need to travel in urban and rural areas. Provisions for home working have become increasingly important since the COVID-19 pandemic and can help to potentially reduce travel related contributions to air pollution.

Policy NB5 'Renewable and Low Carbon Energy Generation' promotes renewable and low carbon energy generation within South Staffordshire, which would be anticipated to play a role in reducing wider air quality impacts associated with fossil fuel generation.

7.4 Residual effects on air

7.4.1 Following the implementation of the LPR mitigation, residual adverse effects on air quality would be anticipated. This is primarily in relation to a likely increase in vehicles and traffic-associated emissions. The residual effects are discussed in **Box 7.3**.

7.4.2 LPR policies would be expected to reduce adverse impacts associated with the exposure of site end users to poor air quality, including that within or adjacent to AQMA's and alongside main roads. However, these policies would not be expected to fully mitigate the adverse impacts on air pollution associated with the scale of proposed development across the Plan area.

7.4.3 It is also acknowledged that collectively the policies in the LPR listed in **Box 7.2**, combined with other transport improvements, could potentially lead to localised improvements in air quality. This is also dependent on other PPPs and implementation of transport proposals at the strategic and site level. This should form part of the monitoring proposals for the LPR (see **Table 17.1**). Cumulative effects are summarised in **Chapter 16** of this report.

Box 7.3: Residual effects and recommendations for air

Residual effects	Further details of the residual effect
Reduction in air quality	<p>Over time, advances in technologies would be expected to help reduce the volume of pollutants released into the atmosphere from vehicles. This may be in the form of replacing petrol and diesel cars with electric cars and promoting the use of other sustainable transport options rather than personal car use. Advances in legislation, national policy and behavioural changes would also be expected to lead to improvements in local air quality. Strategies implemented through the Local Transport Plan and Air Quality Action Plan would complement LPR policies. The Clean Air Strategy⁴⁷ and 25 Year Environment Plan⁴⁸ also sets out strategies to reduce emissions. Together, this would be expected to target specific mitigation and reduce air pollution due to development, to some extent.</p> <p>The introduction of 9,089 dwellings and 99ha of employment floorspace would be expected to increase vehicle emissions in the Plan area. The policies outlined in Box 7.2 would be expected to reduce the likelihood of adverse impacts occurring and could potentially help reduce these adverse impacts. However, due to the volume of development proposed, an increase in traffic flows and subsequent reduction of air quality</p>

⁴⁷ DEFRA (2019) Clean Air Strategy 2019. Available at: <https://www.gov.uk/government/publications/clean-air-strategy-2019> [Accessed 18/11/20]

⁴⁸ DEFRA (2021) 'A Green Future: Our 25 Year Plan to Improve the Environment'. Available at <https://www.gov.uk/government/publications/25-year-environment-plan> [Accessed 01/08/22].

Residual effects	Further details of the residual effect
	<p>would be expected to have residual adverse effects which cannot be fully mitigated through LPR policies alone.</p> <p>A reduction in air quality across the Plan area would be expected to be a long-term but potentially temporary significant effect.</p>
Increased pollutant emissions	<p>Whilst the policies outlined in Box 7.2 would be expected to reduce the likelihood of adverse impacts occurring, an increase in pollutants including NO₂ and PM₁₀ would be expected following the development proposed within South Staffordshire. The introduction of 9,089 dwellings and 99ha of employment floorspace would be expected to increase traffic volumes and energy demand, which would be expected to result in an increase of pollutant emissions and associated impacts on air quality. However, it would be expected that over time, advances in technologies and alternative solutions to energy generation and transport modes such as those set out in Box 7.2, would be expected to reduce this adverse impact by some extent.</p> <p>An increase in pollutant emissions in would be likely to be a long-term but potentially temporary significant effect.</p>

8 Biodiversity, flora and fauna

8.1 Baseline

Internationally designated sites

8.1.1 Habitats sites provide valuable ecological infrastructure for the protection of rare, endangered and/or vulnerable natural habitats and species of exceptional importance within Europe. These sites consist of Special Areas of Conservation (SACs) designated under the Habitats Directive⁴⁹ and Special Protection Areas (SPAs) classified under the Birds Directive⁵⁰. Additionally, the NPPF requires that sites listed under the Ramsar Convention are to be given the same protection as fully designated Habitats sites.

8.1.2 These sites form a system of internationally important sites throughout Europe known collectively as the 'Natura 2000 Network'. In line with the Habitats Regulations, UK sites which were part of the Natura 2000 Network before leaving the EU, have become part of the National Site Network.

8.1.3 There is one Habitats site in the district, Motte Meadows SAC, designated for its lowland hay meadows (*Alopecurus pratensis*, *Sanguisorba officinalis*). Threats and pressures which the lowland hay meadows of the SAC are vulnerable to, and which the LPR should therefore seek to avoid, include water pollution, hydrological changes, water abstraction and changes in land management⁵¹.

8.1.4 Cannock Chase SAC is an area of heathland designated for its northern Atlantic wet heaths with *Erica tetralix* and its European dry heaths. The SAC sits just outside the district, adjacent to its north eastern perimeter (see **Figure 8.1**). This internationally important area of heathland is vulnerable to a range of threats and pressures including increased recreational pressures. Mitigation measures have been agreed to seek to address potential increases in visitor use on the SAC resulting from additional housing allocations. A forestry plan is also in place across Cannock Chase SAC, until 2025⁵². These mitigation measures apply to additional developments arising within the north-east of the district. Other identified issues at the SAC include:

- Undergrazing;
- Drainage;
- Hydrological changes;
- Disease;
- Air pollution: impact of nitrogen deposition;

⁴⁹ European Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora. Available at: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31992L0043&from=EN> [Accessed 06/10/22].

⁵⁰ European Directive 2009/147/EC on the conservation of wild birds. Available at: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0147&from=EN> [Accessed 06/10/22]

⁵¹ Improvement Programme for England's Natura 2000 Sites (IPENS) Site Improvement Plan, Motte Meadows (2014). Available at: <http://publications.naturalengland.org.uk/publication/6519033218203648> [Accessed 06/10/22]

⁵² Forestry England (2015) Cannock Chase Forest Plans. Available at: <https://www.forestryengland.uk/forest-planning/cannock-chase-forest-plan> [Accessed 19/07/22]

- Wildfire/arson; and
- Invasive species.

8.1.5 The identified threats and pressures to the qualifying features of Cannock Chase SAC include air pollution (atmospheric nitrogen deposition), hydrological changes, wildfire/arson and public access and disturbance⁵³. A 15km ZOI for Cannock Chase SAC has been identified through analysis of visitor survey data⁵⁴, within which new development could potentially have an adverse impact on the SAC.

8.1.6 Beyond any geographic zone, pathways via which the Local Plan may have an impact outside of the ZOI also need to be considered. A Habitats Regulations Assessment (HRA) has been undertaken alongside the preparation of the Local Plan to provide an assessment of the potential threats and pressures to Habitats sites and analysis of potential impact pathways. The evolving outputs of this process have informed the SA.

8.1.7 The PO HRA (2021)⁵⁵ identified potential for likely significant effects regarding: recreation (Cannock Chase SAC, Mottey Meadows SAC); water issues (Mottey Meadows SAC); and air quality (Cannock Chase SAC, Cannock Extension Canal SAC, Pasturefield Saltmarsh SAC, West Midlands Mosses SAC and Midlands Meres & Mosses Phase 1 Ramsar).

8.1.8 The emerging HRA to support the Publication Version of the LPR⁵⁶ includes a fully progressed Appropriate Assessment exploring the likely significant effects and required mitigation measures in further depth.

Nationally designated sites

8.1.9 Natural England designates Sites of Special Scientific Interest (SSSIs) in England under the Wildlife and Countryside Act 1981 (as amended). There are eleven SSSIs in the district (see **Figure 8.1**), some of which coincide with the internationally important sites discussed above, including:

- Kinver Edge;
- The Wilderness and Vermin Valley;
- Wollaston Ridge Quarry;
- Checkhill Bogs;
- Highgate Common;
- Gospel End Road Cutting;
- Big Hyde Rough;
- Four Ashes Pit;
- Belvide Reservoir;
- Mottey Meadows; and

⁵³ Natural England (2014) Site Improvement Plan: Cannock Chase. Available at: <http://publications.naturalengland.org.uk/publication/4957799888977920> [Accessed 24/06/22].

⁵⁴ Underhill-Day, J. & Liley, D. (2012) Cannock Chase Visitor Impacts Mitigation Report. Footprint Ecology. Unpublished Report.

⁵⁵ Footprint Ecology (2021) Habitats Regulations Assessment of the South Staffordshire Local Plan Review 2018-2038 (Preferred Options). Available at: <https://www.sstaffs.gov.uk/doc/182688/name/S%20Staffs%20HRA%20PO%202021.pdf/> [Accessed 16/09/22]

⁵⁶ Footprint Ecology (2022) Habitats Regulations Assessment of the South Staffordshire Local Plan Review 2018-2038 (Publication Plan, Regulation 19) – Publication Draft, 10th October 2022

- Stowe Pool and Walk Mill Clay Pit.

8.1.10 Natural England has developed Impact Risk Zones (IRZs) for each SSSI unit in the country. IRZs are a tool for rapid initial assessment of the potential risks to SSSIs posed by development proposals⁵⁷. Much of South Staffordshire lies within SSSI IRZs.

8.1.11 National Nature Reserves (NNRs) were established to protect some of the most important habitats, species and geology in the country and to provide 'outdoor laboratories' for research. Two thirds of the country's NNRs are managed by Natural England, the remainder being managed by organisations approved by Natural England, such as the RSPB, the Forestry Commission, Wildlife Trusts and local authorities. Of the 224 NNRs in England, Motte Meadows NNR is the only one in South Staffordshire.

Ancient woodland

8.1.12 Ancient woodland is an area that has been wooded continuously since at least 1600AD, including 'ancient semi-natural woodland' and 'plantations on ancient woodland sites', both of which have equal protection under the NPPF.

8.1.13 There are multiple areas of ancient woodland in South Staffordshire, mostly in the north of the district but fairly evenly distributed (see **Figure 8.1**).

Local Nature Reserves

8.1.14 Natural England encourages local authorities to formally designate appropriate sites as Local Nature Reserves (LNR) under Section 21 of the National Parks and Access to the Countryside Act 1949. LNR designations demonstrate a commitment by the local authority to manage land for biodiversity, protect it from inappropriate development and provide opportunities for local people to study and enjoy wildlife. Six LNRs lie within South Staffordshire (see **Figure 8.1**), five of which are managed by the Council, including:

- Wyrley & Essington Canal LNR (managed by the Council);
- Shoal Hill Common LNR (managed by the Council);
- South Staffordshire Railway Walk LNR (managed by the Council);
- Wom Brook Walk LNR (managed by the Council);
- Highgate LNR; and
- Baggeridge Country Park LNR (managed by the Council).

Local Wildlife Sites

8.1.15 Local Wildlife Sites (LWSs) are non-statutory designated sites, identified by local authorities in partnership with nature conservation charities, statutory agencies and ecologists, although they are privately owned. In South Staffordshire, LWSs are comprised of Sites of Biological Importance (SBIs) and Natural Heritage Sites. Grade 1 SBIs are of a greater ecological value than Grade 2 SBIs. There is a total of 69 LWSs spread throughout South Staffordshire.

⁵⁷ Natural England (2022) Natural England's Impact Risk Zones for Sites of Special Scientific Interest, 08 June 2022. Available online at: <https://www.data.gov.uk/dataset/5ae2af0c-1363-4d40-9d1a-e5a1381449f8/ssi-impact-risk-zones-england> [Accessed 19/07/22].

Habitats and Species

8.1.16 The current legislation identified for UK Priority Habitats includes that provided by the NPPF paragraph 179, which states that plans should “*promote the preservation, restoration and re-creation of priority habitats, ecological networks and the recovery of priority species populations, linked to national and local targets, and identify suitable indicators for monitoring biodiversity in the plan*”.

8.1.17 There are a wide range of habitats within South Staffordshire, which is primarily dominated by deciduous woodland. These are priority habitats of the UK Biodiversity Action Plan, and in South Staffordshire contain:

- Coastal and floodplain grazing marsh;
- Deciduous woodland;
- Good quality semi-improved grassland;
- Lowland dry acid grassland;
- Lowland fens;
- Lowland heathland;
- Lowland meadows;
- Purple moor grass and rush pastures;
- Reed beds; and
- Traditional orchard.

River ecology

8.1.18 The River Basin Management Plans for 2015⁵⁸ and drafts for 2021⁵⁹ for the Humber (HRBMP) and Severn (SRBMP) provide an update on the ecological status of the water environment.

8.1.19 The water bodies comprising the Humber river basin are presented in **Table 8.1**. An overview of their ecological status is presented in **Table 8.2**. In addition to their ecological status, the HRBMP provides a chemical status of waterbodies. Of the 987 surface waterbodies tested, 955 were of a Good status and 32 received a Fail. Of the 51 groundwater bodies tested, 26 were of a Good chemical status and 25 were of a Poor chemical status. 13 were of a Poor quantitative status whilst 38 were of a Good quantitative status.

8.1.20 The water bodies comprising the Severn river basin are presented in **Table 8.1**. An overview of their ecological status is presented in **Table 8.2**. Of the 755 surface waterbodies tested for the SRBMP, 720 were of a good status and 35 failed. Of the 42 groundwater bodies tested, 27 were of a Good chemical status and 25 were of a Poor chemical status. 33 were of a ‘Good quantitative status’ whilst 9 were of a ‘Poor quantitative status’.

8.1.21 Each RBMP presents the following objectives of the Water Framework Directive:

- To prevent deterioration of the status of surface waters and groundwater;
- To achieve objectives and standards for protected areas;

⁵⁸ Defra (2015) River Management Basemap Plans: 2015. Available at: <https://www.gov.uk/government/collections/river-basin-management-plans-2015#severn-river-basin-district-rbmp-2015> [Accessed 30/12/17].

⁵⁹ Environment Agency (2021) Draft river basin management plans: 2021. Available at: <https://www.gov.uk/government/collections/draft-river-basin-management-plans-2021> [Accessed 19/07/22].

- To aim to achieve good status for all water bodies or, for heavily modified water bodies and artificial water bodies, good ecological potential and good surface water chemical status;
- To reverse any significant and sustained upward trends in pollutant concentrations in groundwater;
- The cessation of discharges, emissions and losses of priority hazardous substances into surface waters; and,
- Progressively reduce the pollution of groundwater and prevent or limit the entry of pollutants.

Table 8.1: Water environment of the Humber and Severn river basins

Water body categories	Humber River Basin				Severn River basin			
	Natural	Artificial	Heavily modified	Total	Natural	Artificial	Heavily Modified	Total
Rivers, canals and surface water transfers	457	105	282	844	560	47	74	681
Lake	11	19	104	134	14	7	47	68
Coastal	0	0	2	2	0	0	0	0
Estuarine	1	2	4	7	1	0	5	6
Groundwater	51	0	0	51	42	0	0	42
Total	520	126	392	1038	617	54	126	797

Table 8.2: Ecological status of Humber and Severn river basin surface waterbodies

Ecological status or potential	Definition of status	No. of water bodies (Humber)	No. of water bodies (Severn)
High	Near natural conditions. No restriction on the beneficial uses of the water body. No impacts on amenity, wildlife or fisheries.	0	0
Good	Slight change from natural conditions as a result of human activity. No restriction on the beneficial uses of the water body. No impact on amenity or fisheries. Protects all but the most sensitive wildlife.	148	151
Moderate	Moderate change from natural conditions as a result of human activity. Some restriction on the beneficial uses of the water body. No impact on amenity. Some impact on wildlife and fisheries.	671	462
Poor	Major change from natural conditions as a result of human activity. Some restrictions on the beneficial uses of the water body. Some impact on amenity. Moderate impact on wildlife and fisheries.	136	134
Bad	Severe change from natural conditions as a result of human activity. Significant restriction on the beneficial uses of the water body. Major impact on amenity. Major impact on wildlife and fisheries with many species not present.	32	8

Geodiversity

- 8.1.22 Geodiversity is the collective term describing the geological variety of the Earth's rocks, fossils, minerals, soils and landscapes together with the natural process that form and shape them. Geodiversity underpins biodiversity by providing diversity of habitat and the ecosystem, with the soil being the link between them. It also embraces the built environment by providing the basis for neighbourhood character and local distinctiveness through building stone and material.
- 8.1.23 Geology in the district is dominated by the Warwickshire Group of the Carboniferous age, Bridgnorth Sandstone Formation of the Permian age and Sherwood Sandstone Group of the Triassic age⁶⁰.
- 8.1.24 Sites of important geodiversity in the district have either been designated as a SSSI or as a Regionally Important Geological Sites (RIGS). This includes:
- Dark Slade Wood, Teddesley Hay RIGS;
 - Lydiates Hill, Baggeridge Country Park, Himley RIGS;
 - Orton Hill Quarry, Wombourne RIGS;
 - Four Ashes Pit SSSI;
 - Gospel End Road Cutting SSSI;
 - Kinver Edge SSSI; and
 - Wollaston Ridge Quarry SSSI.

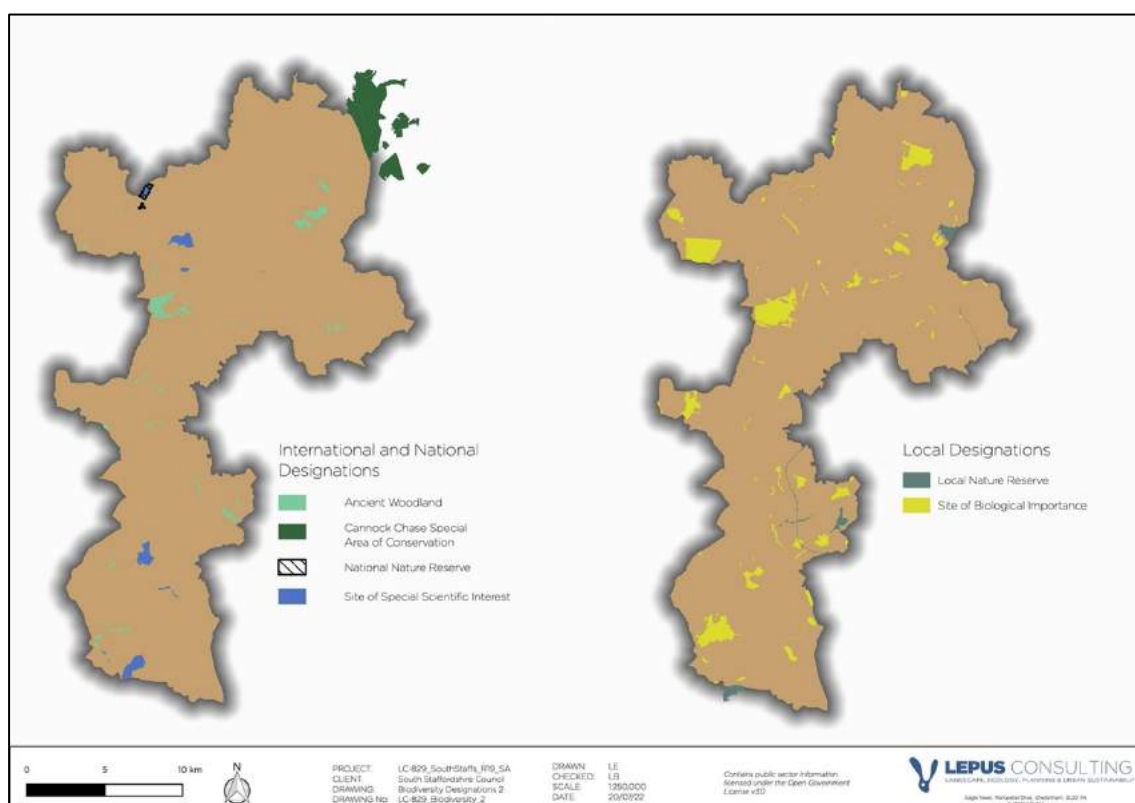


Figure 8.1: International, national and local designations for biodiversity in South Staffordshire

⁶⁰ Geodiversity Staffordshire, Staffordshire Geodiversity Action Plan, 2010. Available online at: <http://srigs.staffs-ecology.org.uk/SGAP/SGAP02011.pdf> [Accessed 08/09/22]

- 8.1.25 Biodiversity, flora and fauna are predominantly considered under SA Objective 3 'Biodiversity and Geodiversity' which aims to help protect, enhance and manage the flora, fauna, biodiversity and geodiversity assets of the district.

Key issues relating to biodiversity, flora and fauna

- ⇒ There are several internationally, nationally and locally designated sites of biological and geological importance in the district.
- ⇒ Important sites and habitats may be affected by development through several pathways, including fragmentation, recreational pressure and/or pollution.
- ⇒ Most of the district falls within IRZs of one or more SSSIs.
- ⇒ It is essential that there is a coherent ecological network of habitats that enable the free movement of species and gene exchange.
- ⇒ It will be necessary to ensure there will be no adverse impact on the site integrity of Habitats sites, either alone or in-combination, as a result of the LPR via a HRA

Key issues relating to areas designated pursuant to Directives 79/409/EEC and 92/43/EEC (the Birds and Habitats Directives)

- ⇒ The following vulnerabilities have been identified in the HRA screening process:
 - Recreation (Cannock Chase SAC, Motte Meadows SAC);
 - Water issues (Cannock Chase SAC, Motte Meadows SAC, West Midlands Mosses SAC / Midlands Meres & Mosses Phase 1 Ramsar and Midlands Meres & Mosses Phase 2 Ramsar); and
 - Air quality (Cannock Chase SAC, Cannock Extension Canal SAC, Motte Meadows SAC, Pasturefield Saltmarsh SAC, West Midlands Mosses SAC / Midlands Meres & Mosses Phase 1 Ramsar and Midlands Meres & Mosses Phase 2 Ramsar).
- ⇒ The HRA which accompanies the LPR identified and reviewed Habitats sites within a 20km radius of South Staffordshire.
- ⇒ The Publication Draft HRA document evaluates each site in terms of likely significant effects of the plan, and concluded that adverse effects on integrity from recreation and water issues could be ruled out, alone or in combination. However, adverse effects on integrity relating to air quality could not be ruled out at this stage and ongoing traffic data collection is required in order to complete the HRA.

8.2 Impacts on biodiversity, flora and fauna

- 8.2.1 **Box 8.1** presents a plan-wide summary of the adverse impacts on biodiversity, flora and fauna that have been identified through the SA process. These adverse impacts are those identified prior to mitigation considerations. **Box 8.2** lists the policies within the LPR which would be likely to mitigate, either fully or partially, some of the identified adverse impacts on biodiversity, flora and fauna. Where there are no mitigating policies, or the contents of the LPR only partially mitigates the adverse impacts, a residual adverse effect is identified. **Box 8.3** explores the nature of these residual effects and, where applicable, provides further recommendations for mitigation or enhancement.

Box 8.1: Summary of identified impacts on biodiversity, flora and fauna



Threats or pressures to Habitats sites

- One SAC is located within South Staffordshire: Motte Meadows SAC. Further Habitats sites are located beyond the district boundary but may still be impacted by development, including Cannock Chase SAC which has an identified 15km ZOI which falls partially within the district. The full implications of development proposed within the LPR on Habitats sites are considered in greater detail in the accompanying HRA. The Appropriate Assessment includes consideration of hydrological considerations (water quantity and quality and hydrological linkages), air quality impacts and recreational pressures.
- No allocated sites are located within or immediately adjacent to Habitats sites. The potential for Likely Significant Effects arising as a result of all site allocations has been considered in further detail within the emerging HRA⁶¹.



Threats or pressures to nationally designated biodiversity sites

- No allocated sites are located within or immediately adjacent to SSSIs or NNRs.
- 38 allocated sites are located within an IRZ which states that development proposals in these zones should be consulted upon with Natural England.
- Two allocated sites are identified as having potential to adversely affect nearby NNRs; Sites SAD379 and 426a are located approximately 900m and 1.4km respectively from Motte Meadows NNR.
- Potential impacts on SSSIs and NNRs include increased recreational disturbance caused by residents visiting the designated sites and poor air quality due to an increase in vehicular movements on roads near to sensitive habitats.



Threats or pressures to locally designated and non-statutory biodiversity or geodiversity sites

- Adverse impacts due to development on locally designated sites could potentially include direct impacts on habitats and / or indirect impacts such as increased recreational disturbance caused by local residents visiting these sites.
- Three allocated sites have been identified as having potential to result in adverse impacts on LNRs. This relates to Site 536a which is located adjacent to 'Wyrley and Essington Canal' LNR, and Sites 523 and GT17 which are located in close proximity to this LNR.
- Five allocated sites are located adjacent to SBIs: Sites SAD139, 536a, 313, E33 and GT32.
- No adverse impacts have been identified with regard to RIGS and geology.

⁶¹ Footprint Ecology (2022) Habitats Regulations Assessment of the South Staffordshire Local Plan Review 2018-2038 (Publication Plan, Regulation 19) – Publication Draft, 10th October 2022

Box 8.1: Summary of identified impacts on biodiversity, flora and fauna



Impacts on habitats of principal importance (priority habitats) and ancient woodland

- Five allocated sites coincide with habitats of principal importance (priority habitats); Sites 010 285, E15a, E18 and E33 coincide with deciduous woodland, and Site 010 also coincides with coastal and floodplain grazing marsh. These habitats can support a range of species of principal importance.
- One allocated site, E20a is located adjacent to Oxen Leasow Wood, and a further 10 allocated sites are located in close proximity to ancient woodlands including Essington Wood, Ladywell Wood, Oxen Leasow Wood and Ash Coppice.
- Potential impacts associated with loss of habitats includes:
 - Direct Impact: Permanent loss of priority habitat in short term.
 - Secondary impacts of habitat loss such as reduced habitat connectivity and increased fragmentation.
 - Secondary impact: Increase in habitat fragility and instability.
 - Indirect effect: Reduced ecological coherence.
 - Uncertain impact on population dynamics: Is the woodland part of a bat habitat or protected/rare bird species network?



Disturbance to ecological function

- Indirect and synergistic effects: increased disturbance from informal open-air recreation, light and noise from people and traffic.
- Direct effect of predation from domestic animals.
- Indirect effects of disturbance to ground nesting birds from dog walking.
- Potential trampling and habitat degradation due to urban edge effects and visitor pressure.
- Assessment recognises these impacts at several receptor types: ancient woodland, local wildlife sites and SSSIs.



Effects on ecological heterogeneity, fragmentation and connectivity

- The Plan area has a diverse multi-functional green infrastructure network. The majority of allocated sites are located on previously undeveloped land, which would result in the loss of soil resources which in turn provide an important ecosystem service. Whilst in many cases these habitats can be conserved alongside development, it would be likely that in some cases fragmentation or loss of habitats and connections between habitats would occur. The assessment recognises these impacts at all receptor types at the landscape scale. Impacts include:
 - Direct and cumulative effects associated with fragmentation of the habitat mosaic.
 - Direct and cumulative effects on species diversity and population stability.
 - Indirect impact of reduction of genetic diversity.
 - Secondary effect of loss of species richness.
 - Isolation of habitats.
- It should also be acknowledged that previously developed land and urban areas have potential to provide biodiversity value, in some cases to a greater extent than undeveloped locations such as

Box 8.1: Summary of identified impacts on biodiversity, flora and fauna

intensively farmed agricultural land. Developments within the existing urban areas or situated on previously undeveloped land have the potential to also result in losses to the green infrastructure network and should consider ways to accommodate and retain ecological links amongst the built form.

8.3 Local Plan mitigation

- 8.3.1 Several policies within the LPR aim to protect and enhance biodiversity within the Plan area. The policies discussed in **Box 8.2** would be expected to provide effective protection for biodiversity assets, and therefore, would be expected mitigate some of the adverse impacts identified in **Box 8.1**.

Box 8.2: Mitigating effects of the LPR planning policies on biodiversity



Threats or pressures to Habitats sites

Policy NB3 'Cannock Chase SAC' will support the recommendations of the SAC Partnership which has developed a strategy to mitigate the effects of development on Cannock Chase SAC. Alongside other Partner Authorities, SSDC has signed a Memorandum of Understanding (MOU) agreeing to formally support evidence base reports prepared by Footprint Ecology and acknowledge the 15km Zone of Influence (ZOI) relating to recreational pressures on the SAC. Mitigation measures have been agreed in the form of Strategic Access Management and Monitoring Measures (SAMMMs) within South Staffordshire, including monetary payment of £290.58 per dwelling and a single legal administration fee of £100 per agreement⁶².

An HRA is being prepared which will identify any likely significant effects as a consequence of the emerging Local Plan on Cannock Chase and other Habitats sites within the influence of the LPR. Potential effects on Habitats sites can relate to increases in recreational pressure, changes in air quality and changes to hydrology, amongst others. The ZOI for effects on a Habitats site can be extensive, for example, as a result of changes to air quality as a consequence of commuting patterns. The ZOI and nature of any effects and the mitigation of those effects are evaluated in the emerging HRA.



Threats or pressures to nationally designated biodiversity sites

Policy NB1 'Protecting, enhancing and expanding natural assets' supports proposals "which protect and enhance the quality of the natural environment", including nationally designated sites (SSSIs and NNRS).

⁶² South Staffordshire District Council (2022) Cannock Chase Special Area of Conservation (SAC). Available at: <https://www.sstaffs.gov.uk/planning/cannock-chase-special-area-of-conservation-sac.cfm> [Accessed 25/08/22]

Box 8.2: Mitigating effects of the LPR planning policies on biodiversity



Threats or pressures to locally designated and non-statutory biodiversity or geodiversity sites

Policy NB1 'Protecting, Enhancing and Expanding Natural Assets' seeks to safeguard local sites, including SBIs, RIGS and LNRs, from development in line with the mitigation hierarchy. The policy also supports the restoration, creation and enhancement of habitats and linkages between these sites and contributions towards the Nature Recovery Network.



Impacts on habitats of principle importance and ancient woodland

Policy NB1 protects habitats and priority species (including ancient woodland, ancient and veteran trees and historic parkland) in accordance with the provisions of the relevant statutory and national policy.

Policy NB4 'Landscape Character' seeks to ensure that development proposals retain and protect all trees, woodland and hedgerows.



Impacts on ecological networks and multi-functional green infrastructure

Policy NB1 'Protecting, Enhancing and Expanding Natural Assets' supports the restoration, creation and enhancement of habitats and linkages between these sites and contributions towards the Nature Recovery Network.

Policy NB2 'Biodiversity' will require development proposals to consider biodiversity as part of any proposal and supports the inclusion of features such as green walls, roofs and bat and bird boxes. All new development will be required to deliver a 10% biodiversity net gain, measured in accordance with Defra's biodiversity metric.

Policy HC19 'Green Infrastructure' supports the protection, maintenance and enhancement of a network of interconnected, multi-functional and accessible green and blue spaces. The policy states that all development proposals should seek to maximise on-site provisions for green infrastructure.

Policy EC1 'Sustainable Economic Growth' seeks to ensure that strategic employment sites make contributions towards the creation and/or enhancement of the green infrastructure network.

Policy HC10 'Design Requirements' promotes a variety of green infrastructure to be provided within new developments and encourages the restoration and enhancement of biodiversity.

Policy HC17 'Open Space' encourages developers to seek opportunities to connect into existing green infrastructure networks when designing on-site open space provisions.

8.4 Residual effects on biodiversity, flora and fauna

- 8.4.1 Following the implementation of LPR policies, mixed effects are identified regarding biodiversity assets. It is likely that impacts on the majority of biodiversity assets would be mitigated through the LPR policies, notably NB1; however, there is some uncertainty at this stage regarding air quality impacts on Habitats sites which can be confirmed when the final HRA is available (the Publication Draft HRA⁶³ notes that a further update to the HRA will be required at Submission). The residual effects of the LPR on biodiversity are discussed in **Box 8.3**.

Box 8.3: Residual effects and recommendations for biodiversity, flora and fauna

Residual effects	Further details of the Residual effect
Threats or pressures to Habitats sites	<p>Policy NB3 supports the recommendations of the Cannock Chase SAC Partnership which has developed a strategy to mitigate the effects of development on Cannock Chase SAC.</p> <p>The Publication Draft HRA document⁶⁴ evaluates each Habitats site within the influence of the LPR in terms of likely significant effects of the plan. Following appropriate assessment, the HRA concluded that adverse effects on integrity from recreation and water issues could be ruled out, alone or in combination. However, adverse effects on integrity relating to air quality could not be ruled out at this stage and ongoing traffic data collection is required in order to complete the HRA. At the time of writing, the HRA has not been completed and so the residual effect on Habitats sites is uncertain.</p>
Threats or pressures to nationally designated biodiversity sites	<p>LPR Policy NB1 states that “Development proposals which directly or indirectly cause harm to sites of national importance (whether individually or in combination with other developments) will not be permitted”. This policy would be expected to mitigate adverse impacts arising from development proposals that have potential to adversely affect SSSIs or NNRs as set out in Box 8.1, the majority of which includes sites within SSSI IRZs which state that the proposed development should be consulted on with Natural England.</p> <p>Through the consultation of the LPR, this SA and the planning application stage, Natural England will be consulted on in regard to these development proposals, and as a result, the LPR would not be expected to result in a residual adverse impact on SSSIs across the Plan area.</p>
Threats or pressures to locally designated and non-statutory biodiversity or geodiversity sites	<p>LPR Policy NB1 states that “Local sites will be safeguarded from development through the use of the mitigation hierarchy with avoidance as the preferred approach”. The LPR policies would be expected to mitigate adverse impacts arising from development proposals which are situated in close proximity to locally designated and non-statutory biodiversity assets.</p> <p>Following the requirements of the LPR policies for the conservation and enhancement of these biodiversity assets as well as the improvement and maintenance of the green infrastructure network, it would not be anticipated that potential adverse impacts due to development would not be significant.</p>

⁶³ Footprint Ecology (2022) Habitats Regulations Assessment of the South Staffordshire Local Plan Review 2018-2038 (Publication Plan, Regulation 19) – Publication Draft, 10th October 2022

⁶⁴ Ibid

Residual effects	Further details of the Residual effect
Impacts on habitats of principal importance and ancient woodland	<p>LPR Policy NB1 states that “<i>The loss or deterioration of irreplaceable habitats including ancient woodland and ancient or veteran trees will not be acceptable unless there are wholly exceptional reasons and a suitable compensation strategy is agreed</i>”. This policy would be expected to mitigate adverse impacts arising from development proposals which are situated in close proximity to ancient woodland and habitats of principle importance.</p> <p>In addition, many other LPR policies including MA1 which sets out requirements for strategic development sites seek to provide green infrastructure and biodiversity enhancements which would be expected to help reduce the loss of habitats of principle importance.</p> <p>The provision of buffer zones for ancient woodland and veteran trees could further inform policy provisions. For instance, consideration could be given to specifying minimum and preferred buffers to ancient woodland and veteran trees alongside a requirement for appropriate arboricultural surveys in accordance with Forestry Commission and Natural England Guidance⁶⁵.</p>
Impacts on the ecological network	<p>The LPR would be expected to result in the loss of a significant amount of previously undeveloped land, including soil resources, habitats and potentially ecological links between biodiversity assets.</p> <p>Fragmentation of the ecological network would be expected to be a long-term significant adverse effect. It may be temporary if biodiversity net gain and landscape scale ecological enhancements are effectively implemented through the adopted plan which would potentially deliver a significant beneficial effect in the long term.</p>

⁶⁵ Natural England (2022). Ancient woodland, ancient trees and veteran trees: protecting them from development. Available at: <https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences#:~:text=For%20ancient%20woodlands%2C%20you%20should,metres%20to%20avoid%20root%20damage.&text=A%20buffer%20zone%20around%20an,the%20diameter%20of%20the%20tree> [Accessed 20/09/22]

9 Climatic factors

9.1 Baseline

9.1.1 Anthropogenic climate change is predominantly the result of greenhouse gas (GHG) emissions. GHGs are emitted from a wide variety of sources, including transport, construction, agriculture and waste. Typically, development leads to a net increase in GHG emissions in the local area, although efforts can be made to help limit these increases.

9.1.2 The Climate Change Act 2008⁶⁶ is the basis for the UK's approach to tackling and responding to climate change. It requires that emissions of carbon dioxide and other greenhouse gases are reduced and that climate change risks are prepared for. The Act also establishes the framework to deliver on these requirements.

9.1.3 The UK is a member of the United Nations Framework Convention on Climate Change (UNFCCC). The UNFCCC is the key forum which oversees international action to tackle climate change. The UNFCCC led the development and adoption of The Paris Agreement in 2015⁶⁷. A total of 160 countries have pledged to cut their emissions as part of this process. The Committee on Climate Change (CCC) report 'Net Zero – The UK's contribution to stopping global warming'⁶⁸ recommended new emission targets: reducing GHG emissions by at least 100% of 1990 levels (net zero) by 2050. A major source of GHGs is from vehicle emissions. The vast majority of residents would be likely to have at least one vehicle per household. It is likely that residential development proposed within the Plan area would result in an associated increase in the number of vehicles on the road in the Plan area, and consequently an increase in GHG emissions would be expected, contributing to the Greenhouse Effect and exacerbating anthropogenic climate change. Encouraging active travel or use of public transport are effective ways to help reduce vehicle numbers and as a result, reduce GHG emissions.

Renewable energy

9.1.4 One strategy to combat GHG emissions is to reduce the quantity of energy produced via fossil fuel led energy production⁶⁹. In the last two decades, there has been a significant increase in the volume of energy generated through renewable energy sources. In 2021, approximately 39% of electricity generated in the UK was from renewable sources⁷⁰. This represents a slight decrease compared to 2020, reflecting less favourable weather conditions, particularly for wind generation. Despite this, there has been an overall trend of increasing volume of energy generated through renewable sources.

⁶⁶ Climate Change Act 2008. Available at: <http://www.legislation.gov.uk/ukpga/2008/27/contents> [Accessed 16/08/22]

⁶⁷ United Nations Climate Change (2015) The Paris Agreement. Available at: <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement> [Accessed 16/08/22]

⁶⁸ Committee on Climate Change (2019) Net Zero – The UK's contribution to stopping global warming. Available at: <https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/> [Accessed 16/08/22]

⁶⁹ RTPI (2018) Renewable Energy: Planning's role in delivering renewable energy in the new low carbon economy. Available at: <https://www.rtpi.org.uk/research/2018/june/renewable-energy/> [Accessed 16/08/22]

⁷⁰ DBEIS (2022) Energy trends: UK renewables. Available at: <https://www.gov.uk/government/statistics/energy-trends-section-6-renewables> [Accessed 24/06/22]

- 9.1.5 The promotion of on-site renewable or low carbon technologies incorporated with new development in South Staffordshire would help to decrease reliance on energy that is generated from unsustainable sources, such as fossil fuels. A reduction in the use of fossil fuels would help to reduce the volume of GHGs that are emitted into the atmosphere. This in turn would reduce South Staffordshire's contribution towards the causes of climate change. South Staffordshire generated 43,121 MWh of renewable energy across 1,340 installations in 2020⁷¹.

Adapting to climate change

- 9.1.6 Climate change has the potential to result in a range of environmental risks within South Staffordshire and nationally, such as those associated with increased heatwaves in the summer months and more frequent storm events in the winter. This can have implications across a range of receptors, such as for sewer capacity due to heavy rainfall and biodiversity in terms of the habitat distribution of species sensitive to local conditions.
- 9.1.7 Vegetation acts as a carbon sink, providing an important ecosystem service. Some site allocations proposed in South Staffordshire would be likely to result in a net loss in vegetation cover (i.e. those comprising previously undeveloped land), and as such, may compromise the carbon storage capacity of the natural environment.

Carbon emissions

- 9.1.8 Carbon dioxide (CO₂) emissions per capita in South Staffordshire was greater than in any other district in Staffordshire in 2020, apart from Stafford and Staffordshire Moorlands, primarily because of the energy used for transport purposes⁷² (see **Table 9.1**).

Table 9.1: Total and per capita territorial carbon dioxide emissions in 2020 in South Staffordshire and other authorities of the West Midlands⁷³

Area	Total emissions (ktCO ₂)	Population estimate	Per capita emissions (tCO ₂)
Staffordshire	4,855.3	883,200	5.5
South Staffordshire	725.5	112,400	6.5
Cannock Chase	329.6	101,500	3.2
East Staffordshire	597.9	120,900	4.9
Lichfield	558.8	105,600	5.3
Newcastle-under-Lyme	619.2	129,600	4.8
Stafford	777.7	137,900	5.6
Staffordshire Moorlands	1,025.7	98,400	10.4
Tamworth	220.9	76,900	2.9

⁷¹ Department for Business, Energy and Industrial Strategy (2021) Regional Renewable Statistics: Renewable electricity by local authority, 2014 to 2020. Available at <https://www.gov.uk/government/statistics/regional-renewable-statistics>. [Accessed 19/07/22].

⁷² CAMCO (2010) Staffordshire County-wide Renewable / Low Carbon Energy Study. Available at: https://www.staffs Moorlands.gov.uk/media/1216/CAMCO-Staffordshire-County-Wide-Renewable--Low-Carbon-Energy-Study-June-2010/pdf/Staffordshire_LDF_Evidence_Base_Report_V6_ISSUED_FINAL.pdf?m=1480440065920 [Accessed 16/08/22]

⁷³ ONS (2022) UK local authority and regional carbon dioxide emissions and national statistics 2005 – 2020. Available online at: <https://www.gov.uk/government/statistics/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics-2005-to-2020> [Accessed 20/07/22].

9.1.9 Total annual emissions (ktCO₂/year) in South Staffordshire were the fourth largest in the West Midlands. The estimated CO₂ emissions in South Staffordshire for 2018-2020 are presented in **Table 9.2**.

Table 9.2: CO₂ emissions estimates - Total per capita (from 2018 to 2020) for South Staffordshire⁷⁴

Period	Total CO ₂ Emissions per capita			
	Tonnes per person			
	South Staffordshire	Minimum for All local authority districts in West Midlands	Mean for All local authority districts in West Midlands	Maximum for All local authority districts in West Midlands
2018	7.4	3.5	6.9	17.2
2019	7.1	3.2	6.5	16.3
2020	6.3	2.9	5.7	15.0

9.1.10 The requirement to improve the energy efficiency of homes stems from the legal requirements to reduce CO₂ emissions set out in the Climate Change Act 2008 and the government's Net Zero Strategy 2021. The Net Zero Strategy sets out to reduce greenhouse gas emissions by 55% by 2025, 68% by 2030, 78% by 2035 and 100% by 2050⁷⁵.

9.1.11 The significant majority of carbon emissions in South Staffordshire are from the transport sector (see **Table 9.3**). Total carbon emissions in the district have been decreasing slowly between 2011 and 2019. In that time, there has been a slight decrease in industry and commercial carbons emissions, a significant decrease in domestic sourced carbon emissions and a minor increase in transport associated emissions.

Table 9.3: GHG Emissions by sector for each year from 2018-2020⁷⁶

Period	Sector							Total
	Industry	Commercial	Public Sector	Domestic	Transport	Agriculture	Waste Management	
2018	133.9	21.8	20.0	171.8	507.0	80.0	60.1	987.4
2019	132.9	20.0	19.8	165.8	481.7	80.8	56.9	950.2
2020	111.0	20.1	20.3	162.8	417.8	79.8	53.9	858.8

⁷⁴ LG Inform (2022) CO₂ emissions estimates - Total per capita in South Staffordshire. Available at:

https://lginform.local.gov.uk/reports/lqastandard?mod-metric=53&mod-period=3&mod-area=E07000196&mod-group=AllDistrictInRegion_WestMidlands&mod-type=namedComparisonGroup [Accessed 19/07/22].

⁷⁵ HM Government (2021) Net Zero Strategy: Build Back Greener. Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1033990/net-zero-strategy-beis.pdf [Accessed 23/08/22]

⁷⁶ DBEIS (2021) UK local authority and regional carbon dioxide emissions and national statistics 2005 – 2020. Available at:

<https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-to-2020> [Accessed 20/07/22].

- 9.1.12 Much of South Staffordshire comprises Green Belt and agricultural land, with varying sizes of urbanised areas distributed across the district. Woodland areas are present, but most are fragmented. Local initiatives to plant native broad-leaved trees across South Staffordshire aim to increase awareness of environmental impacts⁷⁷. Lack of green infrastructure results in a reduced capability of the environment to provide ecosystem services including the storage and filtration of water, providing natural flood protection, as well as reduced availability of habitats and connectivity within the green network enabling movement of species. Flooding is considered further within **Chapter 15 – Water**, and loss of previously undeveloped land has been considered within **Chapter 14 – Soil**.
- 9.1.13 The layout and design of future development can have benefits to achieving sustainable development and reducing contributions to climate change. Although specific detail of development is outside the scope of a Local Plan, the LPR could potentially help to encourage the development of more energy efficient homes to help reduce the overall carbon emissions of South Staffordshire. Energy efficient homes are those that are designed to reduce the demand on energy and improve energy efficiency in the home, which can include Eco Houses, Zero Carbon Homes and Passivhaus⁷⁸.
- 9.1.14 Throughout the SA process, climate change has been considered under SA Objective 1 ‘Climate change mitigation’ which seeks to minimise South Staffordshire’s contributions towards climate change, and SA Objective 2 ‘Climate change adaptation’ which seeks to plan for the anticipated levels of climate change in the future. However, it should be noted that climate change is a cross-cutting theme with relevance across all objectives of the SA Framework and SEA topics.

⁷⁷ South Staffordshire Council (2022) Local Initiatives. Available at: <https://www.sstaffs.gov.uk/environment/local-initiatives.cfm> [Accessed 23/08/22].

⁷⁸ Urbanist Architecture. How to design Eco, Passivhaus and Zero Carbon Homes. Available at: <https://urbanistarchitecture.co.uk/how-to-design-eco-houses-passivhaus-and-zero-carbon-houses/> [Accessed 16/08/22].

Key issues relating to climatic factors

- ⇒ Climate change has the potential to increase the risk of fluvial and surface water flooding.
- ⇒ There is often a lack of shade cover available in urban areas of South Staffordshire due to the urbanised character of the areas. There is a lack of mature trees along road networks and within and on the edges of centres. GI should be enhanced and expanded, wherever possible.
- ⇒ Overall, CO₂ emissions in South Staffordshire have decreased from 2018 to 2020; however, CO₂ emissions per capita are above the mean levels for all local authority districts in the West Midlands. Whilst per capita carbon emissions may be in decline, if more concerted efforts for sustainably sourced energy and materials are not made then total carbon emissions would be likely to increase further following the development proposed in the LPR.
- ⇒ New development needs to incorporate energy efficiency measures and climate change adaptive features in order to respond to predicted levels of climate change.
- ⇒ A range of further risks linked to climate change may affect South Staffordshire. These include:
 - an increased incidence of heat related illnesses and deaths during the summer; increased risk of injuries and deaths due to increased number of storm events and flooding;
 - adverse effect on water quality due to a change in water levels and turbulent flow after heavy rain and a reduction of water flow;
 - a need to increase the capacity of sewers;
 - loss of species that are at the edge of their southerly distribution and spread of species at the northern edge of their distribution;
 - an increased move by the insurance industry towards a more risk-based approach to insurance underwriting, leading to higher cost premiums for local business; and
 - increased drought and flood related problems such as soil shrinkages and subsidence.

9.2 Impacts on climatic factors

9.2.1 **Box 9.1** presents a plan-wide summary of the adverse impacts on climatic factors that have been identified through the SA process. These adverse impacts are those identified prior to mitigation considerations. **Box 9.2** lists the policies within the LPR which would be likely to mitigate, either fully or partially, some of the identified adverse impacts on climatic factors. Where mitigating policies are silent on climatic factors, or the contents of the LPR only partially mitigates the adverse impacts, a residual adverse effect is identified. **Box 9.3** explores the nature of these residual effects and, where applicable, provides further recommendations for mitigation or enhancement.

Box 9.1: Summary of identified impacts on climatic factors



Increased carbon emissions

The proposed development of 9,089 dwellings and 99ha of employment floorspace within the LPR would be likely to increase to some extent local carbon emissions through energy demand associated with the occupation of new dwellings and employment premises, transport-related emissions and the production and use of materials during construction. This impact would be expected to accelerate anthropogenic climate change and is likely to contribute towards cumulative effects which exacerbate global events such as sea level rise and extreme weather events.



Loss of multi-functional green infrastructure

The proposed development within the LPR would cumulatively result in the loss of a significant area of previously undeveloped land. Some of the proposed development could potentially also result in the loss of trees, hedgerows and other vegetation currently on site. Multi-functional green infrastructure is vital in helping to reduce the adverse impacts of climate change.

9.3 Local Plan mitigation

9.3.1 The contents of the LPR would be likely to help reduce the adverse impacts of the Plan in relation to climatic factors, with policies focusing on sustainable economic growth, construction and transport, as well as managing flood risk and enhancing Green Infrastructure. Policies which are anticipated to help mitigate the impacts identified in **Box 9.1**, are discussed in **Box 9.2**.

Box 9.2: Mitigating effects of the LPR planning policies on climatic factors



Increased carbon emissions

Policy DS5 'The Spatial Strategy to 2039' sets out the spatial strategy for the district. By directing development towards Tier 1 settlements and the urban edge of existing larger towns outside the district, this policy would be likely to facilitate more sustainable communities, by locating residents in closer proximity to services, facilities and public transport, including railway stations. The use of the private cars and associated fossil fuel consumption is identified as one of the district's larger contributors to carbon emissions. By seeking to reduce the need to travel and by locating development in settlements with existing public transport links, this policy could lead to a lower level of carbon emissions. There is a level of uncertainty in this assessment as the choice of more sustainable modes of transport relies on behavioural change of individuals.

Policy DS6 'Longer Term Growth Aspirations for a New Settlement' sets out a number of objectives that new settlement proposals will need to deliver, including ensuring the developments are future-proofed to support reductions in greenhouse gas emissions through design, and anticipating opportunities to incorporate renewable energy measures.

Policy HC12 'Space About Dwellings and Internal Space' encourages development proposals to provide careful layout and design considerations to deliver multiple benefits to people and the environment including energy conservation.

Policy HC13 'Parking Provision' sets out that appropriate provision for parking is required in line with adopted parking standards and includes requirements for electrical vehicle charging facilities for development proposals to meet.

Policies EC8 'Retail' and EC9 'Protecting Community Services and Facilities' seek to maintain the vitality of village centres in existing settlements and in doing so may reduce the need for residents to travel by car to access facilities.

Policy EC12 'Sustainable Transport' sets out the Council's approach to sustainable transport through a wide range of measures including strengthening bus and rail services and their connections, encouraging walking and cycling, the Park and Ride initiative at Cross Green and improving availability of electric vehicle charging points. Through these measures, this policy would be expected to increase opportunities for residents to make sustainable transport choices.

Policy NB5 'Renewable and Low Carbon Energy Generation' will specifically address renewable and low carbon energy generation, including the policy provisions relating to solar, wind and biomass energy schemes. The promotion of renewable or low carbon technologies within the Local Plan would help to decrease reliance on energy that is generated from unsustainable sources, such as fossil fuels.

Policy NB6 'Sustainable Construction' sets out energy and water efficiency in new developments including the requirement for all major residential development to achieve a minimum 63% reduction in carbon emissions in comparison to the baseline rates, as set out within Building Regulations Approved Document Part L 2013 and all major commercial development to achieve BREEAM Excellent or Outstanding.

Policy MA1 'Master Planning Strategic Sites' sets out various requirements for the development of the four strategic sites, including provision of a "*Movement Framework and Access Strategy*" which promotes public transport and active travel.

Box 9.2: Mitigating effects of the LPR planning policies on climatic factors



Loss of multi-functional green infrastructure

Policy NB1 'Protecting, Enhancing and Expanding Natural Assets' seeks to conserve and enhance biodiversity features including soils and other non-designated ecological features such as hedgerows and mature trees. Vegetation provides several ecosystem services, including carbon storage as well as cooling/shading effects.

Policy NB2 'Biodiversity' will require development proposals to consider biodiversity as part of any proposal and supports the inclusion of features such as green walls, roofs, bat and bird boxes. All new development will be required to deliver a 10% biodiversity net gain, measured in accordance with Defra's biodiversity metric. This would be likely to contribute towards the wider multi-functional green infrastructure network.

Policy EC1 'Sustainable Economic Growth' sets out the broad requirements in relation to economic development. Part of this policy will be to promote active travel measures and the creation/enhancement of multifunctional green spaces and the enhancement of the Green Infrastructure Network. These measures would contribute to climate change mitigation and adaptation.

Policy HC10 'Design Requirements' promotes a variety of green infrastructure to be provided within new developments, including tree-lined streets, and seeking opportunities to restore and enhance biodiversity.

Policy HC17 'Open Space' encourages developers to seek opportunities to connect into existing green infrastructure networks when designing on-site open space provisions.

Policy HC19 'Green Infrastructure' sets out wider green infrastructure principles to achieve multi-functional green infrastructure. Green infrastructure can serve to mitigate the effects of climate change through carbon sequestration in soils and vegetation and the shading/cooling effects of trees and vegetation. The provision of green infrastructure in proximity to new development may also encourage residents to enjoy the local environment and reduce the need to travel for exercise, dog walking etc.

Policy MA1 'Master Planning Strategic Sites' sets out various requirements for the development of the four strategic sites, including provision of a "*Green Infrastructure Framework*" to set out a hierarchy of open space throughout each site.

9.4 Residual effects on climatic factors

9.4.1 The LPR sets out several policies which aim to help mitigate the adverse impacts relating to climatic factors (see **Boxes 9.1** and **9.2**). However, the implementation of these requirements would not be expected to fully mitigate the adverse impacts associated with net increases in greenhouse gases. **Box 9.3** lists the likely residual effects of the LPR in relation to climatic factors and, where applicable, provides further mitigation or enhancement recommendations.

Box 9.3: Residual effects and recommendations for climatic factors

Residual effects	Further details of the residual effect
Increased carbon emissions	<p>Based on an average of 2.3 people per dwelling in South Staffordshire⁷⁹, the proposed development of 9,089 dwellings over the Plan period could increase the local population by approximately 20,905 new residents. These residents would be expected to increase traffic flows and vehicular emissions, as well as increase energy demand in the Plan area. This would, in turn, exacerbate the effects of climate change.</p> <p>Policy NB6 'Sustainable Construction' requires a minimum of 63% reduction in carbon emissions for each new dwelling, and states that "<i>new development of one or more new dwellings must achieve net zero regulated carbon emissions</i>". For non-residential development, the policy requires achievement of BREEAM 'Excellent' standard as a minimum for carbon reduction. Various other policies as discussed within Box 9.2 seek to increase the uptake of sustainable transport and active travel, reducing reliance on private car use.</p> <p>Although the LPR policies, notably NB6, would be expected to have a positive impact in helping to reduce emissions particularly in terms of building design and construction, the plan would not be expected to fully mitigate the impacts associated with the occupation of development including those associated with transport. However, it would be expected that over time, advances in technologies and alternative solutions would be expected to reduce this adverse impact to some extent.</p> <p>An increase in carbon emissions in South Staffordshire would be likely to be a long-term and permanent significant effect. A carbon budgeting exercise for the district could inform further measures to reduce climate change impacts and climate change action plans in South Staffordshire.</p>
Loss of multi-functional green infrastructure	<p>Several LPR policies aim to conserve and enhance multi-functional green infrastructure across the district and encourage development proposals to seek opportunities to incorporate links and increase connectivity of the wider green infrastructure network.</p> <p>Furthermore, the LPR would help to ensure that climate change adaptability measures and 'future-proofing' of developments is considered, through various policies which seek to allow for high quality green and blue infrastructure links to support health and wellbeing, active travel, biodiversity, and enhancements to natural capital.</p> <p>Although the proposed development within the LPR would be expected to result in the loss of greenfield land and associated green infrastructure to some extent, policies within the LPR would be expected to mitigate this loss of multi-functional green infrastructure, resulting in a positive effect on provision of green infrastructure in the longer term.</p>

⁷⁹ Based on 2021 Census population data (110,500) and 2021 dwelling stock information (48,064).

ONS (2022) Population and household estimates, England and Wales: Census 2021. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/populationandhouseholdestimatesenglandandwales/census2021> and DLUHC & MHCLG (2022) Live tables on dwelling stock. Available at: <https://www.gov.uk/government/statistical-data-sets/live-tables-on-dwelling-stock-including-vacants> [Accessed 26/08/22]

10 Cultural heritage

10.1 Baseline

Designated features

10.1.1 The district has a wide range of designated statutory and non-statutory heritage assets, including Listed Buildings, Registered Parks and Gardens (RPGs), Scheduled Monuments (SMs), conservation areas and archaeological sites (see **Figure 9.1**). These important heritage assets are protected through the planning system via conditions imposed on developers and other mechanisms. Historic England is the statutory consultee for certain categories of listed building consent and all applications for scheduled monument consent, as well as statutory consultee in the SEA and Local Plans processes.

10.1.2 Conservation areas are areas of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance. Local authorities designate conservation areas in any area of 'special architectural or historic interest' whose character or appearance is worth protecting or enhancing. This is judged against local and regional criteria rather than national importance as is the case with listing. Conservation area designations increase the planning authority's control over demolition of buildings and over certain alterations to residential properties that would normally be classed as 'permitted development' and not require planning permission. The 19 conservation areas located in South Staffordshire are⁸⁰:

- Blymhill;
- Brewood;
- Chamberlain's Lane, Penn Common;
- Chillington Estate;
- Codsall and Oaken;
- Enville Village and Estate;
- Himley Village and Parkland;
- Kinver;
- Lapley;
- Lower Penn;
- Pattingham;
- Penkridge;
- Shropshire Union Canal;
- Staffordshire and Worcestershire Canal;
- Stourbridge Canal;
- Trysull and Seisdon;
- Weston-under-Lizard Village and Estate;
- Wheaton Aston; and
- Wombourne.

⁸⁰ South Staffordshire District Council (2022) List of conservation areas. Available at: <https://www.sstaffs.gov.uk/planning/conservation-areas.cfm> [Accessed 20/07/22].

10.1.3 Since 2008, Historic England has released an annual Heritage at Risk Register. The Heritage at Risk Register highlights the listed buildings, SMs, conservation areas, wreck sites and RPGs in England deemed to be 'at risk'. In South Staffordshire, this includes⁸¹:

- Roman fort west of Eaton House, Brewood and Coven – a SM on private land, vulnerable to arable ploughing;
- Enclosures and cursus, south east of Efflinch, Barton-under-Needwood – a SM on private land, vulnerable to arable ploughing;
- Bowl Barrow, south west of Merryton Low, Onecote, Staffordshire Moorlands – a SM on government/agency land, vulnerable to natural erosion;
- Roman camp, Kinvaston, Penkridge / Lapley, Stretton and Wheaton Aston – a SM on private land vulnerable to stock erosion;
- Stable Court at Four Ashes Hall, Four Ashes, Enville – a Grade II* Listed Building owned by a commercial company, in a very bad condition and at immediate risk of further rapid deterioration or loss of fabric with no solution agreed; and
- Sandfields Pumping Station east Building, Chesterfield Road, Lichfield – a Grade II* Listed Building owned by a commercial company, in poor condition and vacant. At risk of slow decay with no solution agreed.

Non-designated features

10.1.4 It should be noted that not all the district's historic environment resource and heritage assets are subject to statutory designations; non-designated features comprise a significant aspect of heritage, which is often experienced on a daily basis by many people – whether at home, work or leisure. Whilst not listed, many buildings and other features are of historic interest. Likewise, not all nationally important archaeological remains are scheduled. There may be unrecorded archaeological artefacts in the area, which have not yet been discovered.

10.1.5 The Archaeology Data Service shows 2,515 records of physical archaeological evidence in the county of Staffordshire⁸². This includes records of known features as well as digs and excavations, some of which resulted in archaeological finds.

⁸¹ Historic England (2022) Heritage at Risk Register. Available at: <https://historicengland.org.uk/advice/heritage-at-risk/search-register/results/?searchType=HAR&search=South+Staffordshire> [Accessed 20/07/22].

⁸² Archaeology Data Service (2016) ARCHSEARCH. Available at: <http://archaeologydataservice.ac.uk/> [Accessed 16/08/22]

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- 10.1.6 Maintaining local distinctiveness, character and sense of place alongside delivering development can present challenges. However, new development can also stimulate new investment and potentially enhance the local townscape or improve the accessibility of heritage assets for local residents. Historic England advocate seeking opportunities alongside development for delivering heritage-led regeneration⁸³, creating a strong sense of place and local distinctiveness, encouraging the use of traditional building skills, and promoting climate change resilience and innovative reuse of historic buildings where appropriate⁸⁴. Engaging with and celebrating cultural heritage also provides a number of opportunities to benefit wellbeing, social inclusion and equality⁸⁵.
- 10.1.7 Heritage assets are predominantly considered under SA Objective 9 'Cultural Heritage', which seeks to enhance, conserve and manage sites, features and areas of historic and cultural importance.

⁸³ Deloitte (2017) Heritage Works: A toolkit of best practice in heritage regeneration. Available at: <https://historicengland.org.uk/images-books/publications/heritage-works/> [Accessed 16/08/22]

⁸⁴ Historic England (2016) Sustainability Appraisal and Strategic Environmental Assessment – Historic England Advice Note 8. Available at: <https://historicengland.org.uk/images-books/publications/sustainability-appraisal-and-strategic-environmental-assessment-advice-note-8/> [Accessed 16/08/22]

⁸⁵ Historic England (2018) Wellbeing and the Historic Environment. Available at: <https://historicengland.org.uk/images-books/publications/wellbeing-and-the-historic-environment/wellbeing-and-historic-environment/> [Accessed 16/08/22]

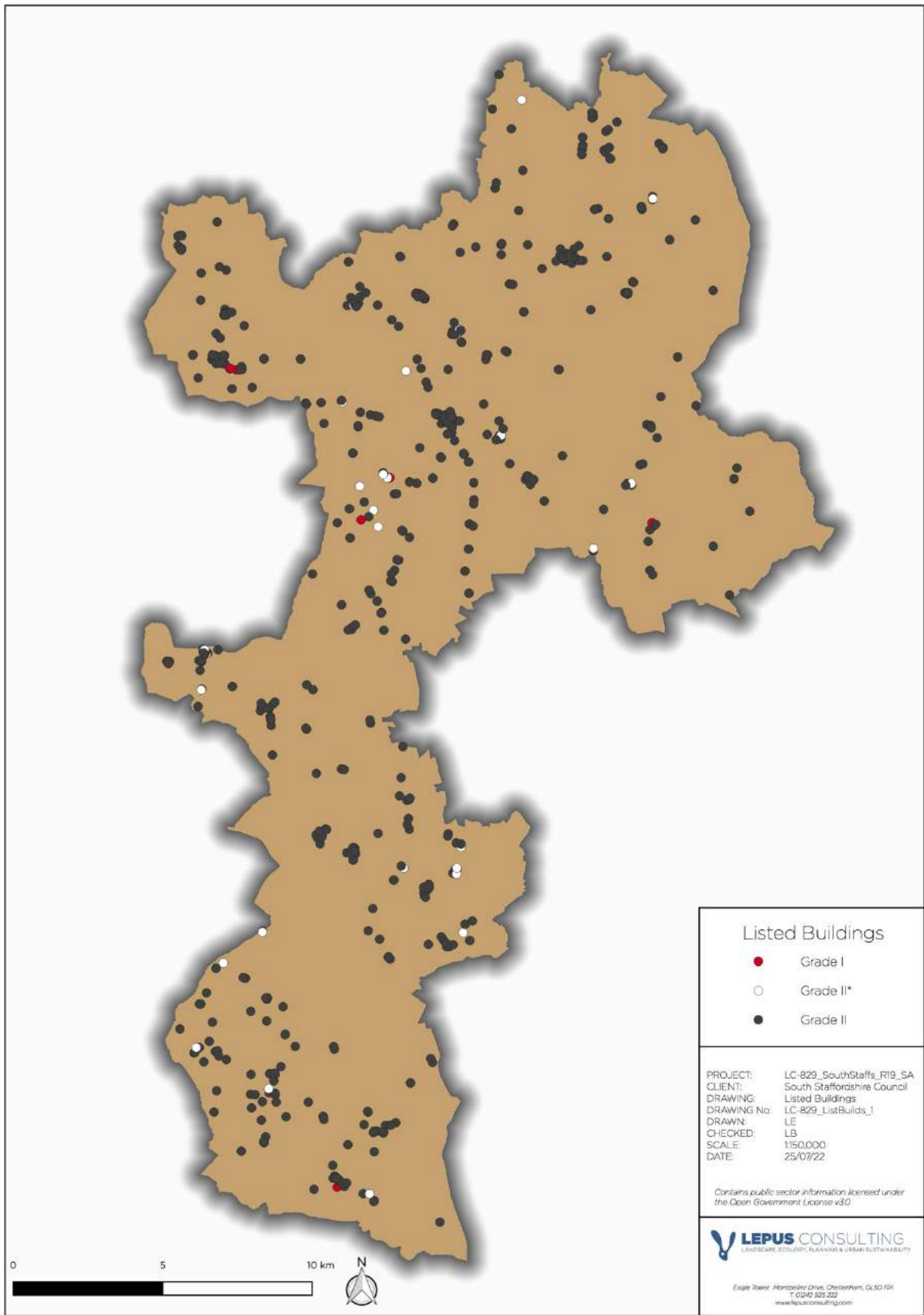


Figure 10.1: Listed Buildings in South Staffordshire

Key issues relating to cultural heritage

- ⇒ Development in the district may have the potential to lead to effects on historic landscapes and cause direct damage to archaeological sites, monuments and buildings and / or their settings.
- ⇒ Archaeological remains, both seen and unseen, could potentially be affected by new development.
- ⇒ Nationally designated heritage assets will continue to benefit from legislative protection.
- ⇒ Locally identified assets would potentially be afforded less protection.

10.2 Impacts on cultural heritage

10.2.1 **Box 10.1** presents a plan-wide summary of the adverse impacts on cultural heritage that have been identified through the SA process. These adverse impacts are those identified prior to mitigation considerations and for cultural heritage relate primarily to the alteration of historic character and setting associated with designated heritage assets. **Box 10.2** lists the policies within the LPR which would be likely to mitigate, either fully or partially, these identified adverse impacts on cultural heritage. Where mitigating policies are silent, or the contents of the LPR only partially mitigates the adverse impacts, a residual adverse effect is identified. **Box 10.3** explores the nature of these residual effects.

Box 10.1: Summary of identified impacts on cultural heritage



Alter character and / or setting of designated heritage assets

- Development in close proximity to a SM has the potential to result in harm to a nationally designated asset and/or its setting. SMs comprise a variety of historic features including below-ground remains, burial mounds and standing stones, for example.
- None of the allocated sites coincide with or are located adjacent to SMs; however, one allocation is near an SM with the potential to adversely impact its setting. This relates to Site E33 which is located approximately 550m from 'Roman fort W of Eaton House' SM.
- Registered Parks and Gardens (RPGs) are designated heritage assets which Local Planning Authorities must consider within in their decision-making processes. Development in close proximity to an RPG has the potential to affect both the asset itself and its setting.
- One allocated site is identified as being located near to an RPG with the potential to adversely impact its setting. This relates to Site 576 which is located approximately 800m from 'Enville' RPG.
- Development which coincides with or is located in close proximity to a Listed Building has the potential to affect both the asset itself and its setting. This will depend on contextual factors relating to the nature and location of development and factors that contribute to the significance of heritage assets, including its setting. Grade I and II* Listed Buildings are considered to be those of greatest historic or architectural significance.
- No allocated sites coincide with Listed Buildings. However, three allocated sites (224, 536a and E33) are located directly adjacent to Grade II Listed Buildings and 11 further allocated sites (519, 079, 646a/b, 010, 420, 584, 426a, E15a, GT05, GT14 and GT23) are located within close proximity to Grade II Listed Buildings with the potential to adversely impact their settings.

Box 10.1: Summary of identified impacts on cultural heritage



Alter character and / or setting of Conservation Areas

- Conservation Areas (CAs) are identified as areas of architectural or historic interest and designated at a local level. The SA adopts a precautionary approach to the assessment by presuming that development within or in proximity to a CA has the potential to adversely impact the heritage asset and its setting. It is however acknowledged that the replacement of buildings which currently has a detrimental impact on a CA could potentially result in a neutral, mixed or beneficial effect (to be informed by published Conservation Area Appraisals and site assessments).
- None of the allocated sites are located within a CA; although, three allocated sites (224, 079 and 284) are located adjacent to a CA and one allocated site (251) is approximately 50m from a CA, all of which would have the potential to affect their settings.



Alteration of historic environment character

- The Historic Environment Character Assessment for South Staffordshire⁸⁶ provides a detailed assessment of the historic environment character for 13 project areas identified by SSDC, and evaluated the impact of medium to large scale housing development upon each of the zones. This included evaluation of the historical value.
- 32 allocated sites are located in areas of 'medium' historic value, where "*Legible heritage assets are present within the zone, but are not necessarily predominant or have undergone some form of alteration. Their presence, however, may contribute to an understanding of the development of the character zone and/or there are potential associations between assets. Further research may clarify these associations and elucidate the contribution of these assets to the history of the wider area*".
- 17 allocated sites are located in areas of 'high' historic value, where "*The legible heritage assets either dominate or significantly contribute to the historic character of each zone. There are strong associations between the heritage assets (both tangible and intangible) within the zone that are potentially demonstrable and/or the heritage assets make an important contribution to the history of the wider area*".



Impact on archaeology

- There are numerous archaeological features identified in the Historic Environment Record (HER) within South Staffordshire including various structures, buildings, monuments and findspots which may be of historic and archaeological interest.
- 45 allocated sites coincide with, or are adjacent to, identified archaeological features and may have the potential to adversely affect the setting or character of these features.
- There is some uncertainty regarding potential impacts on underground archaeology, as the significance of such features may not be known at this time.

⁸⁶ South Staffordshire Council (2011) Historic Environment Character Assessment: South Staffordshire, January 2011. Available at: <https://www.staffordshire.gov.uk/environment/Environment-and-countryside/HistoricEnvironment/Documents/SouthStaffordshireHEA-FinalReport.pdf> [Accessed 18/08/22]

10.3 Local Plan mitigation

- 10.3.1 The LPR includes an over-arching aim to maintain and enhance the natural and historic environment and preserve the local distinctiveness of settlements within South Staffordshire. Various LPR policies which are anticipated to help protect and enhance the historic environment and heritage assets are listed in **Box 10.2**.

Box 10.2: Mitigating effects of the LPR planning policies on cultural heritage



Alter character and / or setting of designated heritage assets

Policy NB8 'Protection and Enhancement of the Historic Environment and Heritage Assets' promotes the conservation and enhancement of the historic environment through the safeguarding of heritage assets and their setting through various criteria, in line with the NPPF and seeking opportunities to better reveal the significance of heritage assets.

Policy NB9 'Canal Network' supports canal-side development proposals which meet various criteria including that proposals must conserve and enhance the heritage value of canals and enhance the recreation and tourism value of the canal network.

Policy NB4 'Landscape Character' seeks to protect and enhance the intrinsic rural character and local distinctiveness of South Staffordshire, through ensuring that development proposals take into consideration the surrounding environment, views and sensitivities. This includes having regard to heritage assets and especially for any development within Historic Landscape Areas where there may be a greater concentration of designated heritage assets.

Policy HC10 'Design Requirements' would help to ensure that development proposals take into account local character and distinctiveness including historic assets.

Policy EC5 'Tourism' supports development proposals for tourist accommodation and facilities where they would not adversely affect the character of any nearby heritage assets and their settings.



Alter character and / or setting of Conservation Areas

Policy HC10 'Design Requirements' states that development proposals must consider the local character and distinctiveness and ensure that the design of new developments reflects the requirements of any Conservation Area Management Plans that are relevant to the site in question.



Alteration of historic environment character

Policy DS1 'Green Belt' seeks to restrict development in the Green Belt, one of the purposes of which is to "preserve the setting and special character of historic towns"; as such, this policy may help to prevent inappropriate development proposals coming forward which could harm areas of high historic value.

Similarly, Policy DS3 'Open Countryside' seeks in part to protect historic and archaeologically sensitive areas from inappropriate development in areas outside of existing settlement boundaries.

Box 10.2: Mitigating effects of the LPR planning policies on cultural heritage

Policy HC2 'Housing Density' would help to ensure that the density of development does not result in significant adverse impacts to the surrounding area's historic environment, settlement pattern or landscape character.

Policy HC10 'Design Requirements' promotes the development of "*well-designed buildings to reflect local vernacular, including historical building typologies where appropriate*".

Policy EC4 'Rural Economy' supports farm diversification, provided there is no adverse impact upon the historic environment and where proposals respond positively to the existing traditional building styles.

Policy NB4 'Landscape Character' states that development proposals must have regard to the findings of the Historic Landscape Characterisation, and notes that proposals within the Historic Landscape Areas should have regard to conserving and enhancing the historic character and important landscape features.



Impact on archaeology

Policy NB8 'Protection and Enhancement of the Historic Environment and Heritage Assets' requires an archaeological assessment to be prepared where there is potential for adverse effects on areas of archaeological interest, to establish the significance of known or potential heritage assets and inform any required mitigation measures.

Policy DS3 'Open Countryside' seeks to protect sensitive countryside areas from inappropriate development, including landscapes and areas with archaeological value.

10.4 Residual effects on cultural heritage

- 10.4.1 The LPR policies seek to mitigate potential adverse impacts on heritage assets due to the proposed development, as well as protect and enhance the intrinsic rural character and local distinctiveness of South Staffordshire, including the historic environment. Potential residual impacts of the proposed allocations on heritage assets are discussed in table **Box 10.3**.

Box 10.3: Residual effects and recommendations for cultural heritage

Residual effects	Further details of the residual effect
Impact on heritage assets	<p>The LPR policies, primarily NB8, would be expected to mitigate potential adverse impacts on heritage assets which may occur as a consequence of the development proposed within the Plan, including impacts on Listed Buildings, Conservation Areas, Scheduled Monuments and Registered Parks and Gardens.</p> <p>A range of legislation, the NPPF and published national and local guidance also affords protection to heritage assets in line with their significance.</p> <p>Overall, the LPR would be expected to mitigate the potential for significant impacts on the designated heritage assets arising from the proposed development sites, and a negligible impact is predicted overall.</p>

Residual effects	Further details of the residual effect
<p>Alteration of historic environment character</p>	<p>Various LPR policies including HC10 and NB4 encourage development proposals to have regard to the findings of the Historic Landscape Characterisation and seek to conserve and enhance the locally distinctive character within South Staffordshire.</p> <p>The policies would help to mitigate the potential for significant impacts on the historic environment arising from individual development sites; however, due to the scale of development proposed with a large proportion in previously undeveloped locations surrounding rural settlements with historic value, cumulatively the development set out in the LPR could have the potential to alter South Staffordshire's distinctive historic character to some extent. A residual adverse effect would be expected.</p> <p>Alteration of the historic environment character is a long-term and permanent significant effect. There is potential for a cumulative adverse effect on historic character resulting from the development proposed in the Plan.</p>

11 Human health

11.1 Baseline

11.1.1 The health and wellbeing of residents in South Staffordshire is generally very good, with the district performing better than the Regional and England average for several key health indicators (see **Table 11.1**).

11.1.2 Given the age profile in the district, (see **Chapter 13**) South Staffordshire may be expected to have a relatively high rate of chronic or life limiting illnesses. The value of all-cause mortality for under 75-year-olds is 288.3, which is lower than the national average of 336.5. Approximately 0.9% of South Staffordshire's population, or 845 people, have dementia, which is a slightly lower than the national average. The estimated diabetes diagnosis rate for South Staffordshire is 81.1%, which is higher than the national average of 78%⁸⁷. Fewer people in South Staffordshire have died from preventable diseases on average compared to the rest of England⁸⁸.

Table 11.1: Health statistics for South Staffordshire in comparison with the England average⁸⁹

	Deprivation score (IMD) (2015)	Male life expectancy (yrs)	Female life expectancy (yrs)	Suicide rate (per 100,000)	Physically active adults (%)	Adults overweight/obese (%)
South Staffordshire	12.5	80.1	84.1	9.8	64.3	68.4
Region	-	78.5	82.5	10.5	63.0	66.8
England	21.8	79.4	83.1	10.4	65.9	63.5

11.1.3 Obesity is something of an issue in the district, with 10.1% of children aged 4-5 years and 21% of children aged 10-11 years classed as obese, compared with the national averages of 9.3% and 19.3% respectively. Moreover, 20% of Staffordshire adults are physically inactive which is similar to the national average, with around 66% of Staffordshire adults with excess weight.

Healthcare facilities

11.1.4 Access to GP surgeries and hospitals is important for residents. Ideally, residents should be within approximately ten minutes' walk from their nearest GP surgery, whilst a hospital within 5km would be considered relatively accessible. Where distances to important healthcare services are long, sustainable transport modes such as frequent and affordable bus routes should be available to residents.

⁸⁷ Public Health England (2022) South Staffordshire District Health Profile 2018-2020. Available at:

<https://fingertips.phe.org.uk/profile/health-profiles/data#page/1/qid/1938132701/pat/6/ati/201/are/E07000196/iid/90366/age/1/sex/1/cat/-1/ctp/-1/yr/3/cid/4/tbm/1>. [Accessed 20/07/22]

⁸⁸ South Staffordshire District Council – South Staffordshire Locality Profile 2018. Available at:

<https://www.sstaffs.gov.uk/doc/180484/name/3007%20Locality%20Data%20Profile%202018.pdf/> [Accessed 19/07/22]

⁸⁹ Public Health England (2022) South Staffordshire District Health Profile 2018-2020. Available at:

<https://fingertips.phe.org.uk/profile/health-profiles/data#page/1/qid/1938132701/pat/6/par/E12000005/ati/201/are/E07000196/yr/1/cid/4/tbm/1>. [Accessed 19/07/22]

- 11.1.5 There are no hospitals located within the district and residents therefore rely on services in neighbouring areas. The nearest hospitals providing an Accident and Emergency (A&E) department include the County Hospital in Stafford, New Cross Hospital in Wolverhampton and Russells Hall Hospital in Dudley.
- 11.1.6 There are GP surgeries and medical practices throughout the district, including those in Wombourne, Kinver, Penkridge, Codsall, Bilbrook, Brewood and elsewhere. Generally, it is considered that being within 800m or a ten-minute walk of a GP surgery would constitute having good access to your GP⁹⁰. Whilst there are a large number of GP surgeries throughout the district, given the rural nature of the local area and the dispersed pattern of settlements, new residents could potentially have relatively limited access to GP facilities.
- 11.1.7 New housing developments have been suggested to increase demand on local healthcare services⁹¹. The government provides guidance for general practice capacity for large scale developments⁹² as well as resources for planning and designing healthier places⁹³.

Greenspaces and natural habitats

- 11.1.8 In line with the NPPF, local planning authorities should seek to promote social interaction, create communities which are safe and accessible, and ensure there is good accessibility to a range of GI, sports facilities, local shops, cultural buildings and outdoor space.
- 11.1.9 Within South Staffordshire, there is a rich and diverse range of public open spaces, formal parks, outdoor recreational spaces, as well as the PRow and cycle networks and the Shropshire Union and Staffordshire and Worcestershire canal systems. There are two country parks located in South Staffordshire: Baggeridge Country Park and Highgate Common Country Park. South Staffordshire is also bordered in the north east by Cannock Chase Country Park, with several country parks surrounding the district.
- 11.1.10 All these open spaces positively contribute towards the health and wellbeing of residents, by helping to encourage physical exercise through sports, recreation and active travel. The recreational green spaces combined with the natural green space network would also benefit the mental health and wellbeing of residents. District-wide, SSDC reports that:
- 52% of green sites are classed as being at least 'good' and within this, 10% are classed as 'very good'. The value of these sites is therefore classed as 'high'.
 - 38% of green sites were classed as being 'average' (having 'medium' value).

⁹⁰ Barton, H., Grant, M. & Guise, R. (2010) Shaping Neighbourhoods: For local health and global sustainability, January 2010

⁹¹ Solutions for Public Health (2022) Healthcare demand arising from new housing developments. Available at: <https://www.sph.nhs.uk/case-studies/healthcare-demand-arising-new-housing-developments/> [Accessed 23/08/22]

⁹² UK Parliament (2022) General practice capacity for large-scale housing developments. Available at: <https://commonslibrary.parliament.uk/research-briefings/cdp-2022-0067/> [Accessed 23/08/22]

⁹³ Public Health England (2017) Spatial Planning for Health: An evidence resource for planning and designing healthier places. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/729727/spatial_planning_for_health.pdf [Accessed 23/08/22]

- 21 green sites were scored within the 'poor' range (having 'low' value), equating to 10%. However, there are likely to be opportunities to improve these sites⁹⁴.

Air pollution

- 11.1.11 As discussed in detail in **Chapter 7**, air pollution is a significant concern internationally, nationally and locally, with 5.6% of mortality in England and an average of 4.9% of mortality in Staffordshire being attributable to particulate air pollution⁹⁵.
- 11.1.12 It is assumed that the impacts of road transport associated air pollution primarily occur within 200m of source⁹⁶. AQMAs have been designated to manage local air quality in areas where National Air Quality Objectives are unlikely to be achieved. Residents within 200m of a road or AQMA may therefore expect to have their health adversely impacted by road transport associated air pollution to some extent, in addition to the potential impacts of road transport associated noise and light pollution.
- 11.1.13 The issue of human health is dealt with under SA Objective 8 'Health and Wellbeing'. Indicators for the objective include the proximity and access to GP surgeries, NHS hospitals and natural greenspaces.

Key issues relating to human health

- ⇒ The health levels of South Staffordshire residents are generally slightly lower than the average for England.
- ⇒ Obesity in children from the ages 4-5 and 10-11 years of age is higher than the average for England.
- ⇒ The life expectancy for women in the most deprived areas of the district is roughly 6.2 years lower than for women in the least deprived areas.
- ⇒ 10% of green sites are in poor condition.

⁹⁴ South Staffordshire District Council (2014) South Staffordshire Open Space Strategy 2014-2028. Available at: <https://tinyurl.com/2k822p2e>. [Accessed 19/07/22].

⁹⁵ Public Health Profiles (2022) Fraction of mortality attributable to particulate air pollution (new method). Available at: <https://fingertips.phe.org.uk/search/air%20pollution#page/4/qid/1/pat/15/ati/401/are/E07000196/iid/93861/age/230/sex/4/cat/-1/ctp/-1/vrr/1/cid/4/tbm/1> [Accessed 18/07/22].

⁹⁶ Department for Transport (2021) TAG unit A3 Environmental Impact Appraisal. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/825064/tag-unit-a3-environmental-impact-appraisal.pdf [Accessed 14/01/22]

11.2 Impacts on human health

11.2.1 **Box 11.1** presents a plan-wide summary of the adverse impacts on human health that have been identified through the SA process. These adverse impacts are those identified prior to mitigation considerations. **Box 11.2** lists the policies within the LPR which would be likely to mitigate, either fully or partially, some of the identified adverse impacts on human health. Where mitigating policies are silent, or the contents of the LPR only partially mitigates the adverse impacts, a residual adverse effect is identified. **Box 11.3** explores the nature of these residual effect and, where applicable, provides further recommendations for mitigation or enhancement.

Box 11.1: Summary of identified impacts on human health



Limited access to healthcare / leisure facilities

- South Staffordshire is a largely rural district, with sparse settlements. There are no NHS hospitals providing an A&E service within the district itself (although there are several in the adjacent Black Country), and GP surgeries and leisure facilities are generally restricted to the larger settlement centres meaning that a large proportion of the proposed growth will be located outside of the identified sustainable target distances to these facilities. Where there is more limited access to these facilities, residents may be discouraged from living active and healthy lifestyles, which could potentially have adverse impacts on mental wellbeing as well as physical health.
- 59 allocated sites are located outside of the sustainable target distance to NHS hospitals providing an A&E service.
- 49 allocated sites are located outside of the sustainable target distance to GP surgeries.
- 37 allocated sites are located outside of the sustainable target distance to leisure centres.



Exposure to air / noise pollution (from AQMAs / main roads)

- The long-term health of residents, in particular vulnerable groups including children and the elderly, could be adversely impacted by local reductions in air quality. This impact is considered in **Chapter 7**.
- At the time of assessment, 10 allocated sites were identified to be located within, or within 200m of, an AQMA. This includes three sites within 200m of CCDC AQMA which borders South Staffordshire District to the north east, and six sites within 200m of Wolverhampton AQMA which borders the district to the east. One site, 010, was located within 200m of 'AQMA No. 1 (Woodbank)' which has since been revoked.
- Although the majority of allocated sites are situated away from main roads, 27 allocated sites are located within 200m of a main road, raising the potential for air quality impacts associated with atmospheric pollution from vehicular traffic at these sites.
- Development in these locations could potentially expose site end users to increased levels of traffic related air pollution or noise impacts, with adverse implications for health.

Box 11.1: Summary of identified impacts on human health



Limited access to public greenspace

- Good access to public green or open spaces, a diverse range of natural habitats and travelling via walking and cycling are known to have physical and mental health benefits. Whilst there is generally good access to open space across South Staffordshire as a whole, there are spatial variations on existing access to different types and sizes of open space across different areas.
- None of the site allocations coincide with existing greenspaces, and as such no adverse impacts are anticipated in terms of net loss of existing public greenspaces. In terms of accessibility to greenspaces, the majority of the site allocations would be expected to locate new residents in areas with good access to the surrounding countryside or public greenspaces. However, 16 allocated sites are located over 600m from a greenspace and could potentially restrict the access of new residents to opportunities for outdoor recreation and exercise.



Limited access to PRoW or cycle network

- The majority of allocated sites are located in areas with good coverage by the PRoW and/or cycle networks, providing many site end users with opportunities for active travel and recreation in the countryside. However, there are three sites identified as being located outside of the 600m target distance to PRoWs or cycle paths (Sites 536a, E33 and E18) where site end users may be reliant upon less sustainable modes of transport including private car use.

11.3 Local Plan mitigation

- 11.3.1 Several policies aim to promote healthy and active lifestyles for new and existing residents within the Plan area. Many of these policies would be expected to result in benefits to human health, through the provision of open spaces, improvements to walking and cycling networks and improved sustainable transport and access to healthcare facilities. Mitigation is discussed further in **Box 11.2**.

Box 11.2: Mitigating effects of the LPR planning policies on human health



Limited access to healthcare / leisure facilities and services

Policy HC14 'Health Infrastructure' seeks to protect existing healthcare infrastructure and states, "proposals for major residential developments or specialist elderly accommodation must be assessed against the capacity of existing healthcare facilities through engagement with the relevant Clinical Commissioning Group (CCG). Where it is determined that the development results in an unacceptable impact on these facilities and that the development will result in an unacceptable impact on these existing local facilities, then a proportionate financial contribution will be sought agreed through engagement with the CCG".

Policy EC12 'Sustainable Transport' supports the improvement of transport and accessibility across the Plan area, this policy would be expected to improve residents' access to services and facilities, including healthcare.

Box 11.2: Mitigating effects of the LPR planning policies on human health



**Exposure to air / noise pollution (from AQMA/
main road)**

Policy HC11 'Protecting Amenity' seeks to protect residential amenity in relation to noise and other sources of pollution, which may help to reduce adverse impacts associated with the exposure of site end users to poor air quality, such as those within or adjacent to AQMAs or main roads.

Policy HC13 'Parking Provision' also introduces the requirement for electric vehicle charging points and supports infrastructure for electrical public transport, this would serve to encourage the use of electric vehicles and reduce noise and air pollution to some extent.

Policy HC19 'Green Infrastructure' would serve to increase the quality of green infrastructure in developments and may serve to filter air pollution to some extent.

Policy EC1 'Sustainable Economic Growth' seeks to promote the provision of active travel measures and the creation/enhancement of multifunctional green spaces and the enhancement of the Green Infrastructure Network.



Limited access to public greenspace

Policy HC17 'Open Space' states that existing open spaces will be protected and will require 0.006 hectares of multi-functional, centrally located open space per dwelling, with the threshold for on-site provision being 33 dwellings or above. Below this threshold, financial contributions will be made towards the creation and maintenance of off-site multi-functional open space.

Policy HC18 'Sports Facilities and Playing Pitches' states existing sports facilities and playing pitches will be protected and that the provision required from major developments will be determined using the latest Playing Pitch Calculator and Sports Facilities Calculator. An Open Space, Sport and Recreation SPD is proposed.

Policy HC19 'Green Infrastructure' will set out the need for development proposals provide green infrastructure to meet open space, biodiversity, active travel, climate mitigation/adaptation and sustainable drainage in multi-functional open space. A Green Infrastructure SPD is proposed.

Policy HC12 'Space About Dwellings and Internal Space' states that a "*reasonable area of communal open space*" must be provided for flats and specialist housing, which may help to increase accessibility to open spaces for recreation and reflection for residents of these accommodation types.

Policy MA1 'Master Planning Strategic Sites' sets out various requirements for the development of the four strategic sites, including provision of a "*Green Infrastructure Framework*" to set out a hierarchy of open space throughout each site, including play space for children, community gardens, allotments and recreational spaces.



Limited access to PRow or cycle network

Policy EC12 'Sustainable transport' will commit the District/County Council to preparing Local Walking & Cycling Infrastructure Plan to identify strategic opportunities for walking and cycling improvements within the district and will ensure development is designed to promote high quality walking and cycling routes, both within sites and linking to nearby services and facilities.

Box 11.2: Mitigating effects of the LPR planning policies on human health

Policy HC10 'Design Requirements' seeks to ensure development proposals provide a clear and permeable hierarchy of streets, routes and spaces which may serve to encourage travel in the local area by bicycle or by foot.

Policy HC19 'Green Infrastructure' seeks to ensure new development provides multi-functional green infrastructure to meet active travel needs, amongst other functions.

Policy EC1 'Sustainable Economic Growth' seeks to promote the provision of active travel measures and the creation/enhancement of multifunctional green spaces and the enhancement of the Green Infrastructure Network.

Policy MA1 'Master Planning Strategic Sites' sets out various requirements for the development of the four strategic sites, including provision of a "*Movement Framework and Access Strategy*" which promotes public transport and active travel.

11.4 Residual effects on human health

- 11.4.1 Residual adverse effects are those that remain after the application of the mitigating policies within the LPR. Many of the policies would be expected to mitigate and result in positive impacts in relation to human health, for example policies which seek to improve community cohesion, promote healthy lifestyles and provide a range of open spaces and recreational facilities for new and existing residents. However, the rural nature of the district means that many site end users will be situated further away from healthcare facilities than is recommended to support sustainable communities, with potential for restricted access to essential healthcare and likely reliance on private car use to reach the nearest facilities. Residual positive and negative effects of the LPR on human health are discussed in **Box 11.3**.

Box 11.3: Residual effects and recommendations for human health

Residual effects	Further details of the residual effect
Limited access to healthcare/leisure facilities and services	<p>The majority of site allocations are located outside of the sustainable target distance to an NHS hospital and GP surgery. LPR policies, such as Policies HC14 and EC12, would be likely to help prevent the loss of existing healthcare facilities and improve sustainable access to facilities for some residents; however, the policies would not be expected to fully mitigate the restricted access to healthcare services for sites in more rural settlements in South Staffordshire.</p> <p>Limited access to healthcare facilities would be expected to be a medium-term and temporary significant effect.</p>
Exposure to air/noise pollution (from AQMA/main road)	<p>LPR policies would be expected to reduce adverse impacts associated with the exposure of site end users to poor air quality within or adjacent to AQMAs, and impacts associated with reduced air and noise quality alongside main roads. This includes Policy HC11 which states that "<i>All development proposals should take into account the amenity of any nearby residents, particularly with regard to ... noise and disturbance [and] pollution</i>".</p> <p>The policies would be expected to prevent unacceptable impacts on human health associated with air pollution but may lead to a cumulative adverse effect on air quality as a whole, which the policies in the Plan in itself cannot fully mitigate as it would require other transport interventions, for example.</p>

Residual effects	Further details of the residual effect
	Adverse impacts on human health resulting from exposure to poor air quality and noise pollution across the Plan area would be expected to be a long-term but potentially temporary significant effect.
Limited access to public greenspace	<p>Various LPR policies, as discussed within Box 11.1, seek to provide a range of open spaces, sports facilities and recreational spaces for site end users, which would be expected to help facilitate healthy and active lifestyles and supplement the district's existing recreational resource. Notably, Policy HC17 sets out requirements for all development proposals to provide multi-functional open space, or financial contributions towards off-site open space provision, according to the size of the development.</p> <p>An overall positive effect would be likely with regard to the provision of and access to green spaces.</p>
Limited access to PRow or cycle network	<p>The majority of allocated sites are located within the 600m sustainable target distance to existing PRow and/or cycle paths. Various LPR policies seek to create permeable neighbourhoods and promote cycling and walking which would be likely to improve the coverage of, and accessibility to, the pedestrian and cycle networks across South Staffordshire. This would be expected to encourage residents to participate in physical exercise and active travel.</p> <p>An overall positive effect would be likely with regard to pedestrian and cycle access.</p>

12 Landscape

12.1 Baseline

Landscape character

12.1.1 Landscape is described as comprising natural, cultural, social, aesthetic and perceptual elements, this includes flora, fauna, soils, land use, settlement, sight, smells and sound⁹⁷. South Staffordshire has a strong rural character with a high quality landscape and countryside.

12.1.2 South Staffordshire district is dominated by five landscape character types (see **Table 12.1**).

Table 12.1: Landscape character types of South Staffordshire⁹⁸

Landscape Character Type	Key features
Settled Plateau Farmland Slopes LCT	Intensive arable and pasture farming, large scale field pattern with well-trimmed hedgerows, rolling landform, well treed stream corridors, red brick farms, narrow winding lanes and small woodlands.
Ancient Redlands LCT	Hedgerow field pattern with mature hedgerow oaks and some ash, broadleaved woodland, rolling landform, narrow and sunken lanes, steep and sandy slopes, well treed stream corridors and field ponds, parkland and pasture farming, red brick farm houses and straight lanes.
Ancient Clay Farmlands LCT	Mature hedgerow oaks and strong hedgerow patterns; narrow winding lanes, often sunken; small broadleaved and conifer woodlands; well treed stream and canal corridors; hedgerow damsons; occasional native black poplars; numerous farmsteads, cottages, villages and hamlets of traditional red brick; a gently rolling landform with stronger slopes in places; dispersed settlement pattern.
Settled Heathlands LCT	Interlocking woodlands and woodland edges; flat landform; straight roads; canal; relic heathland; well-defined hedgerows and numerous hedgerow trees; Staffordshire red brick rural villages.
Sandstone Estatelands LCT	Silver birch woodlands; well treed stream corridors; straight roads; intensive arable agriculture in an open remnant field pattern.

National Character Areas

12.1.3 Natural England has divided England into 159 distinct natural areas called National Character Areas (NCAs). Each is defined by a unique combination of landscape, biodiversity, geodiversity, history and cultural and economic activity. Their boundaries follow natural lines in the landscape. South Staffordshire falls within three NCAs (see **Figure 11.1**):

- ‘Shropshire, Cheshire and Staffordshire Plain NCA’: gently rolling plains dominated by intensive dairy farming, beef and arable production;

⁹⁷ Natural England (2014) An Approach to Landscape Character Assessment. Available at: <https://www.gov.uk/government/publications/landscape-character-assessments-identify-and-describe-landscape-types> [Accessed 14/01/22]

⁹⁸ Staffordshire County Council (2000) Planning for Landscape Change, Supplementary planning guidance to the Staffordshire and Stoke on Trent Structure Plan, 1996 – 2001. Volume 3: Landscape Descriptions

- 'Mid Severn Sandstone Plateau NCA': with open arable fields and steep wooded gorges of the Severn Valley; and
- 'Cannock Chase and Cank Wood NCA': ranging from the open heathlands and plantations associated with the AONB to dense urban areas

Cannock Chase Area of Outstanding Natural Beauty (AONB)

- 12.1.4 Cannock Chase AONB is a nationally designated landscape, located on the north east of the South Staffordshire district boundary. New development in South Staffordshire could potentially lead to adverse impacts on the AONB, such as through increased visitor pressures and potential adverse visual impacts on the AONB as a result of development proposed within the LPR. Potential adverse impacts on Cannock Chase AONB would be due to the distance from the development to the AONB.

Green Belt

- 12.1.5 Roughly 80% (32,089 ha) of the South Staffordshire district comprises Green Belt (see **Figure 12.1**). The Green Belt areas in South Staffordshire contribute to the distinct rural character and help to distinguish the district from neighbouring areas such as the Black Country⁹⁹. Although Green Belt itself is not necessarily of high landscape value, it often serves to protect the character and setting of historic towns and support landscape-scale biodiversity networks.
- 12.1.6 New development could potentially increase noise and light pollution and reduce the perception of tranquillity in some areas. SSDC aims to manage Green Belt areas in order to prevent unrestricted sprawl and coalescence of urban settlements, as well as opting to develop brownfield sites to assist with urban regeneration¹⁰⁰.
- 12.1.7 SSDC seek to protect Green Belt areas from 'inappropriate development', maintaining the character and openness of the Green Belt¹⁰¹.
- 12.1.8 A Green Belt Study¹⁰² has been undertaken to inform the consideration of revisions to Green Belt boundaries in the district as part of the LPR. In Stage 1, the Green Belt Study assessed land parcels against the contribution they make to the five purposes of the Green Belt (as set out in the NPPF). In Stage 2, the study seeks to identify potential harm as a consequence of releasing land parcels from the Green Belt, resulting in a seven-point scale ranging from 'Very High' to 'Very Low' harm.

⁹⁹ South Staffordshire District Council (2021) The Local Plan Review. Available at: <https://lonestarland.co.uk/wp-content/uploads/2018/04/South-Staffordshire-Local-Plan-Review.pdf>. [Accessed 21/07/22].

¹⁰⁰ LUC (2014) South Staffordshire Partial Green Belt Review Method Statement. Available at: <https://www.sstaffs.gov.uk/doc/171624/name/South%20Staffordshire%20Green%20Belt%20Review%5FFinalReport%5FV3web.pdf/>. [Accessed 21/07/22].

¹⁰¹ South Staffordshire District Council (2014) South Staffordshire Local Plan. Available at: <https://www.sstaffs.gov.uk/doc/171665/name/GB%20OC%20SPD%20FINAL%20ADOPTED%20April%202014.pdf/>. [Accessed 21/07/22].

¹⁰² LUC (2019) South Staffordshire Green Belt Study: Stage 1 and 2 Report. Available at: <https://www.sstaffs.gov.uk/doc/181123/name/South%20Staffs%20GB%20Stage%201%20and%202%20Report%20FINAL%20v1%20-%20web%20copy.pdf/> [Accessed: 16/08/22]

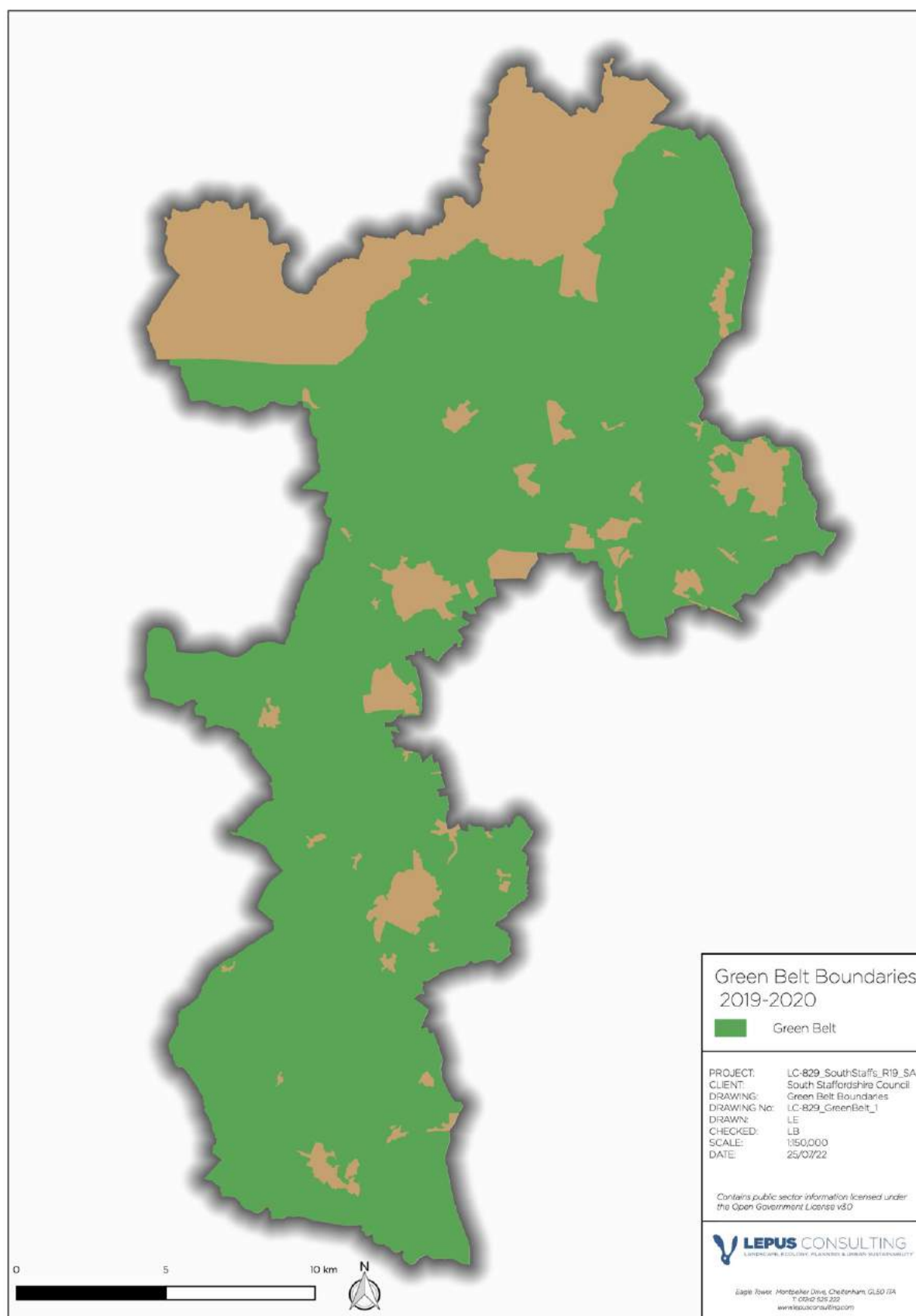


Figure 12.1: Green Belt boundaries in South Staffordshire

Landscape Sensitivity

- 12.1.9 Alongside the Green Belt Study, the South Staffordshire Landscape Sensitivity Assessment¹⁰³, also carried out by LUC, assessed the sensitivity of Green Belt land to housing and commercial development. The aim of the study was to identify the extent to which the character and quality of South Staffordshire Green Belt land is susceptible to change as a result of future development.
- 12.1.10 It should be noted that although there is a relationship between the Landscape Sensitivity Assessment and the Green Belt Harm Assessment, the Green Belt Study states that “*there are fundamental distinctions in the purposes of the two assessments, reflecting the fact that landscape quality is not a relevant factor in determining the contribution to Green Belt purposes, or harm to those purposes resulting from the release of land*”.
- 12.1.11 Within the existing urban areas which cover roughly 7.2% of the district¹⁰⁴, development could potentially impact the surrounding townscapes, and surrounding features of note amongst the built form, such as the canal and waterway networks. Regeneration and development of brownfield sites within the built-up areas may present opportunities to improve the local character, however, the design and layout of potential development is unknown at present. Consideration of the potential impact of development on sensitive townscapes is considered in terms of the historic landscape character within **Chapter 10 – Cultural Heritage**.
- 12.1.12 The issue of landscape has been primarily considered under SA Objective 4 ‘Landscape and Townscape’, which seeks to conserve, enhance and manage the character and appearance of the landscape and townscape, whilst maintaining and strengthening their distinctiveness.

Key issues relating to landscape

- ⇒ 80% of South Staffordshire is Green Belt, which heavily influences the characteristics and heritage of the district.
- ⇒ South Staffordshire borders Cannock Chase AONB on the north east boundary.

¹⁰³ LUC (2019) South Staffordshire Landscape Sensitivity Assessment. Available at: <https://www.sstaffs.gov.uk/planning-files/Spatial-Housing-Strategy/SHSID-Landscape-Study-2019.pdf>. [Accessed 21/07/22].

¹⁰⁴ South Staffordshire District Council (2011) Historic Environment Character Assessment. Available at: <https://www.staffordshire.gov.uk/environment/Environment-and-countryside/HistoricEnvironment/Documents/SouthStaffordshireHEA-FinalReport.pdf>. [Accessed 21/07/22].

12.2 Impacts on landscape

12.2.1 **Box 12.1** presents a plan-wide summary of the adverse impacts on landscape that have been identified through the SA process. These adverse impacts are those identified prior to mitigation considerations. **Box 12.2** lists the policies within the LPR which would be likely to mitigate, either fully or partially, some of the identified adverse impacts on landscape. Where mitigating policies are silent, or the contents of the LPR only partially mitigates the adverse impacts, a residual adverse effect is identified. **Box 12.3** explores the nature of these residual effects and, where applicable, provides further recommendations for mitigation or enhancement.

Box 12.1: Summary of identified impacts on landscape



Impacts on Cannock Chase AONB and its setting

- New development can lead to the loss of landscape features and changes to landscape character and views. Changes in landscape character have the potential to adversely affect Cannock Chase Area of Outstanding Natural Beauty (AONB) and its setting at certain locations. Adverse effects may also arise as a consequence of development proposals at other locations in the Plan area, with the potential to result in cumulative adverse impact on views from more sensitive locations within the designated landscapes.
- Five allocated sites have been identified in the SA as having potential to affect views of/from Cannock Chase AONB owing primarily to their close proximity to the AONB and/or the large scale of the proposed sites. This relates to Site 016 in Huntington approximately 600m from the AONB, Sites 010 and 584 in Penkridge which form part of the strategic allocation approximately 3.5km from the AONB, Site 036c in Stafford approximately 1km from the AONB, and Site E33 which is a large employment site at Four Ashes approximately 3km from the AONB.



Alteration of landscape character

- The introduction of new built form can contradict and conflict with distinctive local character of existing landscapes and townscape which can result in adverse impacts on the local landscape character. In some cases, it is anticipated that the development proposed in the LPR will adversely impact, or potentially result in the loss of, landscape features such as trees, hedgerows, woodlands and ponds, amongst others.
- 39 site allocations are anticipated to have adverse effects on the distinctive characteristics of the various Landscape Character Areas that lie across the Plan area. The majority of sites are located within 'Settled Heathlands', 'Sandstone Estatelands', 'Sandstone Hills and Heaths' or 'Ancient Clay Farmlands' where hedgerows, arable and pastureland and rolling fields are often key characteristics.
- Country Parks are primarily used for recreation. Built development has the potential to impact the landscape character and views from these valued local recreational assets; however, in the South Staffordshire LPR none of the allocated sites have been identified as having potential adverse effects on Country Parks.

Box 12.1: Summary of identified impacts on landscape



Impacts on sensitive landscapes and the West Midlands Green Belt

- The Landscape Sensitivity Study¹⁰⁵ considered the landscape and visual aspects of the land parcels using ten criteria which were considered most likely to be affected by development. Overall landscape sensitivity was assessed on a five-point scale:
 - Three allocated sites are located within areas of 'high' sensitivity where *"the landscape has strong character and qualities with notable features which are highly sensitive to change as a result of introducing built development"*.
 - 10 allocated sites are located within areas of 'moderate-high' sensitivity where the landscape is likely to contain some areas with strong character and high sensitivity to change.
 - 14 allocated sites are located within areas of 'moderate' sensitivity where *"the landscape has some distinctive characteristics and valued qualities, with some sensitivity to change as a result of introducing built development"*.
 - Six allocated sites are located within areas of 'low-moderate' sensitivity where the landscape is likely to contain some areas with distinctive character and sensitivity to change.
 - Three allocated sites are located within areas of 'low' sensitivity where *"the landscape lacks distinct character and qualities and has few notable features, or is robust with regard to introducing built development"*.
 - The remaining 32 allocated sites are located outside of the study area where a negligible effect on sensitive landscapes is likely.
- The Green Belt Study¹⁰⁶ assessed land parcels against the contribution they make to the five purposes of the Green Belt (as set out in the NPPF) and identified potential harm as a consequence of releasing land parcels from the Green Belt on a seven-point scale ranging from 'Very High' to 'Very Low' harm:
 - Four allocated sites are located within areas of 'very high' harm where *"land makes a strong contribution to multiple Green Belt purposes, or a very strong contribution to a single purpose, and where its release would weaken the adjacent Green Belt"*.
 - 11 allocated sites are located within areas of 'high' harm where *"land makes a strong contribution to one of the Green Belt purposes, and where its release would partially weaken adjacent Green Belt"*.
 - Four allocated sites are located within areas of 'moderate-high' harm where *"land makes a moderate contribution to one of the Green Belt purposes and a weak contribution to the others, but where its release would significantly weaken the adjacent Green Belt"*.
 - Five allocated sites are located within areas of 'moderate' harm where *"land makes a relatively weak contribution to two of the Green Belt purposes and a weak contribution to the others, but where its release would partially weaken the adjacent Green Belt"*.
 - Seven allocated sites are located within areas of 'low-moderate' harm where *"land makes a relatively strong contribution to one of the Green Belt purposes, but where its release would create a simplified, more consistent boundary and would not weaken the adjacent Green Belt"*.
 - The remaining 36 allocated sites are located outside of the study area where a negligible effect on the Green Belt purposes is likely.

¹⁰⁵ LUC (2019) South Staffordshire Landscape Sensitivity Assessment. Available at: <https://www.sstaffs.gov.uk/planning-files/Spatial-Housing-Strategy/SHSID-Landscape-Study-2019.pdf> [Accessed 19/08/22]

¹⁰⁶ LUC (2019) South Staffordshire Green Belt Study: Stage 1 and 2 Report. Available at: <https://www.sstaffs.gov.uk/doc/181123/name/South%20Staffs%20GB%20Stage%201%20and%202%20Report%20FINAL%20v1%20-%20web%20copy.pdf/> [Accessed: 16/08/22]

Box 12.1: Summary of identified impacts on landscape



Change in views from Public Rights of Way/for local residents

- The development proposed in the Plan has the potential to adversely impact on informal high-quality viewing experiences that can be gained from the local PRow network around proposed development locations. Development proposed in the Plan predominantly lies in close proximity to existing residential properties and has the potential to adversely impact views from these properties.



Increased risk of urbanisation of the countryside and coalescence

- The proposed development at 34 allocated sites were identified as being likely to result in adverse impacts associated with the urbanisation of the countryside, with settlement boundaries extending into the open countryside. The development at four allocated sites could potentially lead to coalescence between settlements: Site 519 (Codsall and Pendeford), 486c (Wood Hayes and Ashmore), 646a/b (Coven Heath and Cross Green) and E33 (Four Ashes and Gailey). The risk of urban sprawl and coalescence between settlements could potentially have adverse impacts on the landscape character of the Plan area.



Loss of tranquillity

- Rural landscapes are typically tranquil, a valuable attribute that once lost is often irreversible. Darkness at night is one of the key characteristics of rural areas and it represents a major difference between what is rural and what is urban. Increased light pollution levels and consequent impacts on Dark Skies¹⁰⁷ may arise as a consequence of the development proposed in the Plan. The introduction of both noise and night-time lighting is likely to reduce tranquillity at these locations.

12.3 Local Plan mitigation

12.3.1 The spatial strategy for development in South Staffordshire to 2039, as set out in the LPR, directs the majority of new development towards higher tier settlements and existing urban areas, in line with the settlement hierarchy. The LPR seeks to direct development towards previously developed land where possible. However, to meet the identified housing requirements, a proportion of growth within the Plan is located on previously undeveloped land. Various LPR policies aim to protect and, where appropriate, enhance the local character and distinctiveness of South Staffordshire's landscape. These policies are discussed in **Box 12.2**.

¹⁰⁷ Campaign to Protect Rural England (no date) NightBlight: Reclaiming our dark skies. Available at: https://www.nightblight.cpre.org.uk/?aclid=Ci0KCQiwN8_mBRCLARIsAKxi0GKSp30whEredoviY2C0BQZvTOScw_AHFipaf8-mqcXSnrCREne3FYqaAhdVEALw_wcB [Accessed 01/08/22]

Box 12.2: Mitigating effects of the LPR planning policies on landscape



Policy mitigation for impacts on Cannock Chase AONB and its setting

Policy NB4 'Landscape Character' sets out measures to protect and enhance Cannock Chase AONB and its setting, in accordance with national policy and additional guidance including the Cannock Chase AONB Design Guide and the AONB Management Plan.



Threaten or result in the loss of rural and locally distinctive landscape character

Policy NB4 'Landscape Character' will seek to maintain and, where possible, improve the rural character and distinctiveness of the South Staffordshire landscape and includes a requirement to ensure the protection and retention of all trees, woodland and hedgerows to help protect the local landscape. The policy also requires development proposals to have regard to the findings of the Landscape Character Assessment for the county.

Policy NB8 'Protection and Enhancement of the Historic Environment and Heritage Assets', although focused primarily on cultural heritage, may also result in the conservation and enhancement of the character of landscapes and townscapes.

Policy HC10 'Design Requirements' sets out requirements to ensure high quality design, including the requirement for proposed developments to respond positively to landform and respect existing landscape and settlement character.

Policy HC19 'Green Infrastructure' seeks to protect, maintain and enhance greenspaces within the Plan area and strengthen green and blue linkages, which would be expected to contribute towards the creation of a high quality public realm with attractive streets and strong character.

Policy DS3 'Open Countryside' seeks to protect the intrinsic character and beauty of the open countryside and will resist any inappropriate development proposals in these locations.

Policy DS6 'Longer Term Growth Aspirations for a New Settlement' sets out SSDC's support for a new settlement where it will *"Create a place with a local identity, with well-connected and distinctive neighbourhoods and an attractive and functioning centre and public realm, delivering a design code and masterplan for the development with a strong local vision that emerges from collaborative community engagement at the earliest stages"*.

Policy MA1 'Master Planning Strategic Sites' sets out various requirements for the development of the four strategic sites, including provision of a *"Green Infrastructure Framework"* which should incorporate *"Utilisation and retention of existing landscape features and key views into and out of the site to create a distinctive and visually sensitive character to the development that links into the green infrastructure network beyond the site's boundaries"*.

Box 12.2: Mitigating effects of the LPR planning policies on landscape



Impacts on sensitive landscapes and the West Midlands Green Belt

Policy DS1 'Green Belt' sets out the policy protection in relation to the West Midlands Green Belt and notes that a separate Green Belt SPD will be prepared which will set out the specific types of development that may be considered acceptable within the Green Belt and seeks to protect the character of the landscape. Land will only be released for development when necessary and justified as part of a Local Plan Review.

Policy DS2 'Green Belt Compensatory Improvements' states that where sites are removed from the Green Belt for development, appropriate compensatory improvements to remaining Green Belt is required via a Section 106 agreement. This may provide opportunities to deliver or contribute towards the emerging Nature Recovery Network and Open Space Strategy in South Staffordshire.

Policy DS3 'Open Countryside' seeks to protect the openness of the countryside and aims to protect the intrinsic character and beauty of the open countryside.

Policy NB4 'Landscape Character' will seek to maintain and, where possible, improve the rural character and distinctiveness of the South Staffordshire landscape and includes a requirement to ensure the protection and retention of all trees, woodland and hedgerows to help protect the local landscape. The policy also requires development proposals to have regard to the findings of latest Landscape Sensitivity Study.

Policy HC10 'Design Requirements' aims to ensure that all development proposals take account of the local character and distinctiveness and respond to the local vernacular and existing landform.



Change in views from Public Rights of Way/for local residents

Policy NB4 'Landscape Character' could serve to ensure new development takes into consideration the characteristics and sensitivities of the surrounding landscape, and that development does not have a detrimental effect on medium and long-distance views.

The policy also requires proposals within the Cannock Chase AONB or its setting to have regard to the Cannock Chase AONB Views and Setting Guide 2020 which would help to ensure that developments in proximity to the AONB consider the effect of development in terms of views, which may serve to protect views from the PROW network and local residents in certain areas (ie. particularly the north east of the Plan area).



Increase risk of coalescence and/or urban sprawl

Policies DS1 'Green Belt' and DS3 'Open Countryside' seek to protect the openness of the countryside and only release land for development when necessary and justified as part of a Local Plan Review.

Policy HC2 'Housing Density' seeks to achieve 35 dwellings per hectare in developments adjoining Tier 1 settlements and urban extensions in order to achieve an efficient use of land. This would reduce overall land requirements to deliver housing needs.

Policy HC6 'Rural Exception Sites' provides the requirements whereby small housing sites can be delivered in sites lying adjacent to Tier 1-4 settlements.

Box 12.2: Mitigating effects of the LPR planning policies on landscape

Policy EC1 'Sustainable Economic Growth' states that preference should be given to sustainable previously developed land.

Policy DS3 'Open Countryside' would serve to resist development outside of settlement development boundaries, other than in certain circumstances where various other requirements are met.



Loss of tranquillity

Policy HC11 'Protecting Amenity' includes requirements to ensure that noise sensitive habitats and locations are protected from harmful development and aims to protect residential amenity with regard to noise, disturbance, light and pollution.

12.4 Residual effects on landscape

12.4.1 The LPR sets out numerous policies which would be expected to help mitigate potential adverse impacts of the proposed development on the landscape, as set out in **Box 12.2**. Despite these policy provisions, the LPR would be expected to result in residual effects on the landscape to some extent, as discussed in **Box 12.3**.

12.4.2 Cumulative effects are summarised in **Chapter 16** of this report.

Box 12.3: Residual effects and recommendations for landscape

Residual effects	Further details of the residual effect
Impacts on Cannock Chase AONB and its setting	No development is proposed within or directly adjacent to Cannock Chase AONB. Policy NB4 seeks to ensure that development proposals conserve and enhance Cannock Chase AONB and its setting, in accordance with national policy, and with regard to the Cannock Chase AONB Design Guide 2020 and Cannock Chase AONB Views and Setting Guide 2020, or subsequent updates of these documents. This would be expected to minimise potential adverse impacts on the setting or special qualities of the nationally designated landscape arising as a result of the proposed development, with no significant adverse effects anticipated overall assuming the policy is effectively implemented with sensitive design in accordance with other LPR policies and other guidance.
Alteration of landscape character	<p>Various LPR policies seek to ensure that development proposals maintain and improve the district's intrinsic rural character and distinctiveness and have regard to the findings of the published LCA. The policies outlined in Box 12.2 would be likely to mitigate adverse impacts on the landscape character arising from development proposals in some locations. However, due to the scale of development proposed, with a large proportion in previously undeveloped locations surrounding rural settlements, these policies are not expected to fully mitigate the potential impacts on landscape character across the district and a residual adverse effect is anticipated.</p> <p>It should be noted that the nature of the effects of development on the landscape is highly dependent on local site circumstances and the nature of the development proposals.</p> <p>Alteration of the landscape character is a long-term and permanent significant effect. There is potential for a cumulative adverse effect on landscape character resulting from the development proposed in the Plan.</p>

Residual effects	Further details of the residual effect
Impacts on sensitive landscapes and the West Midlands Green Belt	<p>LPR policies seek to ensure that Green Belt land will only be released for development when necessary and justified. Policy NB4 states that development proposals should “<i>have regard to the findings of the latest Landscape Sensitivity Study</i>”. Various other LPR policies aim to maintain and enhance South Staffordshire’s distinctive landscapes and ensure that development design responds to its surroundings.</p> <p>However, it is unlikely that these impacts could be fully mitigated particularly for allocated sites in areas identified as being of ‘high’ sensitivity or ‘very high’ / ‘high’ harm to the Green Belt, as set out in Box 12.1, where the landscape is likely to be unable to accommodate new development without significant change.</p> <p>Alteration of sensitive landscapes is a long-term and permanent significant effect.</p>
Alteration of views	<p>Whilst the LPR policies set out in Box 12.2 serve to provide some proportionate protection of visual amenity and views and may help to mitigate some of the adverse impacts in this regard, it is likely a minor residual impact will remain overall due to the large proportion of development in the Plan proposed on previously undeveloped sites. There is anticipated to be a cumulative adverse residual impact in relation to alteration of views for a number of the sites proposed in the LPR.</p> <p>Alteration of views is likely to be a long-term and permanent significant effect.</p>
Increase risk of urbanisation of the countryside and coalescence	<p>The need to provide housing and employment has led to the proposed allocation of development on previously undeveloped greenfield sites at a number of locations within South Staffordshire. Various policies in the LPR, as set out in Box 12.2, seek to minimise impacts on the countryside and maintain separation between settlements through protection of the Green Belt and open countryside. However, due to the rural context in which much of the new development is situated, the LPR policies would not be expected to fully mitigate these impacts and a residual adverse effect is anticipated.</p> <p>An increased risk of urbanisation of the countryside and coalescence is a long-term and permanent significant effect.</p>
Loss of tranquillity	<p>The proposed development of 9,089 new dwellings and 99ha of new employment land across the district, with a number of development sites located within more rural areas, would be likely to result in a loss of tranquillity of the rural landscape as a consequence of increases in noise and light pollution. Therefore, a residual adverse effect is anticipated.</p> <p>The loss of tranquillity is a long-term and permanent significant effect.</p>

13 Population and material assets

13.1 Baseline

13.1.1 The consideration of 'Population' is a broad matter and has been addressed under several SA Objectives: 5 'Pollution and Waste', 7 'Housing', 8 'Health and Wellbeing', 10 'Transport and accessibility', 11 'Education' and 12 'Economy and Employment'. The effect of combining the assessment of these objectives, seeks to create places where residents live a high quality of life for longer, are well educated and have the necessary skills to gain employment and succeed in modern society. Indicators of these objectives include the proximity of development proposals to schools, accessibility to employment land and proximity to services and amenities.

13.1.2 'Material assets' covers a variety of built and natural assets which are accounted for in a range of SA Objectives. It is a requirement of Schedule 2 of the SEA Regulations to consider material assets, although the Regulations does not include a definition. The SA process has considered material assets as the health centres, schools and other essential infrastructure resources required to meet the demands of the local population and development aspirations of the Local Plan, in addition to natural assets such as mineral resources. Other aspects of natural assets, such as agricultural land, have been considered under other SEA topics (see **Chapter 14 – Soil**).

Population size

13.1.3 The district has an estimated population of 112,369¹⁰⁸. The population is anticipated to increase by 3,300 by 2025, predominantly due to an 1,800 increase in those aged 85 and over and a 5,200 increase in those aged 65 – 84, countered by a 2,700 reduction in those aged 16 – 64.

13.1.4 The population of the district is getting older whilst the proportion of residents of working age is getting smaller, which could have significant impacts on economic output in the district in the future. Those aged 16 – 64 years old currently represent 59.5% of South Staffordshire's population¹⁰⁹.

¹⁰⁸ City Population (2022) South Staffordshire. Available at:
https://www.citypopulation.de/en/uk/westmidlands/admin/E07000196_south_staffordshire/ [Accessed 21/07/22].

¹⁰⁹ NOMIS (2020) Labour Market Profile – South Staffordshire. Available at:
<https://www.nomisweb.co.uk/reports/lmp/la/1946157177/report.aspx#> [Accessed 21/07/22].

Waste

- 13.1.5 Throughout South Staffordshire and nationally, there is a need to increase the proportion of waste sent for reuse, recycling or compost and move away from the use of landfill for waste disposal. Government guidance documents including the 25 Year Environment Plan¹¹⁰ and Waste Strategy for England¹¹¹ highlight the importance of moving towards sustainable waste management and cutting down on hazardous waste and single-use plastics which lead to adverse implications for the health of people and the environment. South Staffordshire reported 47,388 tonnes of total household waste in 2021 – 2022¹¹².
- 13.1.6 The proposed development within South Staffordshire and associated increase in residents would be expected to result in an increase in waste produced.
- 13.1.7 The proportion of local authority collected waste in South Staffordshire which is recycled, reused or composted is 48.4%. As of 2013, no household waste is sent to landfill and is instead delivered to the Energy Recovery Facility at Four Ashes¹¹³.

Transport and accessibility

- 13.1.8 South Staffordshire's Road network comprises minor, primary and A-roads (see **Figure 13.1**). The M6 and M6 Toll in the north east of the district provide access to areas north and south east of the district, including Stafford, Cannock, Birmingham and the wider motorway network. The M54 in the north of South Staffordshire provides access to areas east and west of the district, including Telford and Walsall.
- 13.1.9 The A449 provides a north – south corridor through the district and the A5, A41, A454 and A458 provide east – west links into the West Midlands. Congestion in Staffordshire is only considered an issue in the main urban areas. Traffic delays are concentrated in the north of the district on motorways, the A5, A460 and A449. Local peak hour delays are also evident at junctions within larger settlements.

¹¹⁰ Defra (2018) A Green Future: Our 25 Year Plan to Improve the Environment. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf. [Accessed 21/07/22].

¹¹¹ Defra (2018) Our Waste, Our Resources: A Strategy for England. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/765914/resources-waste-strategy-dec-2018.pdf. [Accessed 21/07/22].

¹¹² Department for Environment Food and Rural Affairs (2022) Local authority collected waste generation from January 2010 to March 2021. Available at: <https://www.gov.uk/government/statistical-data-sets/env18-local-authority-collected-waste-annual-results-tables>. [Accessed 21/07/22].

¹¹³ South Staffordshire District Council (2022) Recycling Performance. Available at: <https://www.sstaffs.gov.uk/bins-recycling/recycling-performance.cfm>. [Accessed 21/07/22].

Public Transport

- 13.1.10 South Staffordshire is served by four railway stations: Bilbrook; Codsall; Landywood and Penkridge (see **Figure 13.1**). Midland Metro serves the district, connecting areas from Birmingham to Wolverhampton. Regular bus links across South Staffordshire are facilitated by a number of providers. For residents who struggle to access public transport, SSDC warrant eight different voluntary transport schemes to provide essential journeys for those unable to utilise existing public transport networks¹¹⁴.
- 13.1.11 In terms of onward and international travel, the nearest airport is Birmingham Airport, located in Solihull approximately 30km south east of South Staffordshire.

Pedestrian and Cycle Access

- 13.1.12 There is an extensive Public Right of Way (PRoW) in South Staffordshire, with a cycle network which covers a large proportion of the district (see **Figure 13.1**). This includes many routes along the canal networks and other watercourses, which provide a recreational resource as well as links to other modes of transport. Notable routes include Staffordshire Way and the Monarchs Way. Cycling currently contributes a small proportion of journeys in South Staffordshire; however, there are aspirations to continue to promote increased cycle use, as demonstrated by the Staffordshire Cycling and Walking Infrastructure Plan¹¹⁵.

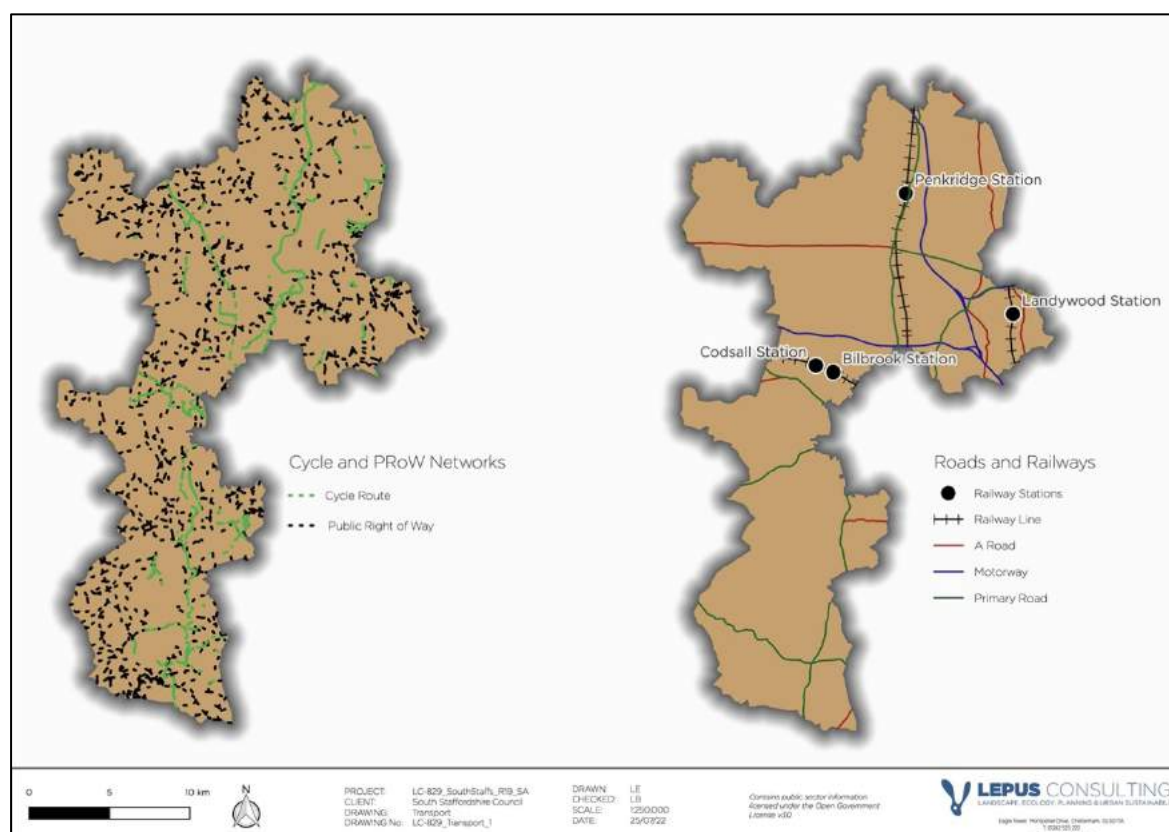


Figure 13.1: Cycle, PRoW, roads and railway networks within South Staffordshire.

¹¹⁴ South Staffordshire District Council (2022) Community Transport in South Staffordshire. Available at: <https://www.sstaffs.gov.uk/transport/community-transport-in-south-staffordshire.cfm>. [Accessed 21/07/22].

¹¹⁵ Staffordshire County Council (2021) Local Cycling and Walking Infrastructure Plan 2021-2031. Available at: <https://www.staffordshire.gov.uk/Transport/transportplanning/Walking-and-cycling.aspx> [Accessed 23/09/22]

House prices

- 13.1.13 The average UK house price was £281,000 as of April 2022¹¹⁶, with house prices in the East of England increasing by 2.0% in the year to August 2020. In general, house prices in South Staffordshire are significantly higher than the average for the Region and England as a whole¹¹⁷.
- 13.1.14 On average, full-time workers could expect to pay around 9.1 times their annual workplace-based earnings on purchasing a home in England in 2021¹¹⁸.

Affordable housing

- 13.1.15 Affordable housing is defined as “*social rented, affordable rented and intermediate housing, provided to specified eligible households whose needs are not met by the market*”¹¹⁹. SSDC reports a lack of affordable housing, particularly for younger people in the district.

Employment

- 13.1.16 The improvement and maintenance of high and stable levels of employment alongside economic growth are some of the key aims for growth in the UK. Other objectives include improvements to the education system to increase the skill levels of both children and adults, as well as improved productivity and innovation, particularly with regards to technology. The Industrial Strategy White Paper¹²⁰ outlines the vision for the UK economy, to create prosperous communities and provide good jobs for the population, supported by upgraded infrastructure and innovative technology.
- 13.1.17 The percentage of people who are economically active in South Staffordshire is higher than average for the UK. The percentages of employed and self-employed people in South Staffordshire are higher than the national percentages also. The percentage of unemployed people in South Staffordshire is lower than the average for the UK¹²¹ (see **Table 13.1**).

¹¹⁶ Office for National Statistics (2022) UK House Price Index: April 2022. Available at: <https://www.ons.gov.uk/economy/inflationandpriceindices/bulletins/housepriceindex/april2022> [Accessed 22/07/22].

¹¹⁷ South Staffordshire District Council (2022) Affordable Housing and Rural Exception Sites. Available at: <https://www.sstaffs.gov.uk/housing/affordable-housing-and-rural-exception-sites.cfm>. [Accessed 22/07/22].

¹¹⁸ Office for National Statistics (2022) Housing affordability in England and Wales: 2021. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/bulletins/housingaffordabilityinenglandandwales/2021> [Accessed 22/07/22]

¹¹⁹ Ministry of Housing, Communities and Local Government (2021) Affordable housing supply. Available at: <https://www.gov.uk/government/collections/affordable-housing-supply> [Accessed 16/08/22].

¹²⁰ HM Government (2017) Industrial Strategy: Building a Britain fit for the future. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/664563/industrial-strategy-white-paper-web-ready-version.pdf [Accessed 16/08/22]

¹²¹ NOMIS (2022) Official labour market statistics: Labour Market Profile – South Staffordshire. Available at: <https://www.nomisweb.co.uk/reports/lmp/1a/1946157177/report.aspx#> [Accessed 12/10/22]

Table 13.1: Percentage of the working population (16-64) who are employed, self-employed or unemployed¹²²

Area	South Staffordshire (%)	Great Britain (%)
Economically active	85.3	78.6
Employees	71.7	66.0
Self Employed	13.7	9.2
Unemployed	3.1	3.8

13.1.18 The proportion of those in South Staffordshire employed as managers, directors and senior officials is greater than the proportion seen in Great Britain as a whole (see **Table 13.2**).

Table 13.2: Employment by occupation in South Staffordshire¹²³

Area	South Staffordshire (%)	Great Britain (%)
Managers, directors and senior officials	11.9	10.3
Professional occupations	24.0	25.8
Associate profession and tech occupations	11.5	15.0
Administrative and secretarial occupations	19.3	10.1
Skilled trades occupations	13.4	8.6
Caring, leisure and other service	*	7.9
Sales and customer service occupations	*	6.6
Process, plant and machine operatives	*	5.7
Elementary occupations	*	9.6

* Sample size too small for reliable estimate / estimate not available since sample size is disclosive

Employment land

13.1.19 According to the Employment Land Study (2012), South Staffordshire has approximately 380ha of employment stock/land known to the Council, of which 215ha is spread across four strategic sites¹²⁴. Of this, approximately 46ha of employment land was identified as being available for development. In addition, the Council proposed to allocate an additional 62ha of employment land at i54 and ROF Featherstone through the SAD. This reflects the cross-boundary significance of these employment sites, with i54 in particular being a focus for advanced manufacturing. This has seen a number of large international companies move onto i54, including the JLR engine plant and aerospace company Moog.

13.1.20 The EDNA (2022)¹²⁵ identified a total objectively assessed gross employment land need of 63.6ha for the period 2020 to 2040.

¹²² NOMIS (2022) Official labour market statistics: Labour Market Profile – South Staffordshire. Available at: <https://www.nomisweb.co.uk/reports/lmp/la/1946157177/report.aspx#> [Accessed 12/10/22]

¹²³ Ibid

¹²⁴ Warwick Economics and Development (2012) Employment Land Study, South Staffordshire 2012, Final Report. Available at: <https://www.sstaffs.gov.uk/doc/171971/name/Employment%20Land%20Study%202012.pdf/> [Accessed 22/07/22]

¹²⁵ DLP Planning Ltd (2022) Economic Development Needs Assessment 2020-2040 for and on behalf of South Staffordshire District Council, June 2022. Available at: <https://www.sstaffs.gov.uk/doc/183444/name/0616KWST5049PSSSDC%20EDNA%202020-2040%20Final.pdf/> [Accessed 14/09/22]

Education

- 13.1.21 In South Staffordshire District, there are 41 primary schools and 13 secondary schools and colleges. The majority have 'outstanding' or 'good' OFSTED ratings, with four schools listed as 'requiring improvement'¹²⁶.
- 13.1.22 **Table 13.3** shows that the percentage of residents with National Vocational Qualifications (NVQs) in the district are higher than the regional and national percentages. The percentage of South Staffordshire residents with no qualifications is lower than the regional and national percentage.

Table 13.3: Highest level of qualification in South Staffordshire¹²⁷

Qualification	South Staffordshire (%)	W. Midlands region (%)	Great Britain (%)
NVQ4 and above	35.2	31.5	38.2
NVQ3 and above	50.4	49.7	56.9
NVQ2 and above	75.8	68.2	74.3
NVQ1 and above	88.3	79.9	85.3
No Qualifications	7.7	11.8	8.0

Digital connectivity

- 13.1.23 Digital connectivity includes the availability of fast broadband speeds, such as fibre, as well as mobile connectivity. Good digital connectivity significantly enhances the quality of life for local residents as well as the ability for businesses to operate effectively and to compete in the global market, helping to drive investment and employment opportunities.

Poverty

- 13.1.24 Although suburban and rural parts of South Staffordshire are relatively affluent, there are pockets of deprivation. The Index of Multiple Deprivation (IMD) is a nationally recognised measure of deprivation at the Lower Super Output Area (LSOA). The lower IMD average rank number relates to more deprived areas¹²⁸ (see **Figure 13.2**). The average rank is calculated by averaging all LSOA ranks in each larger area after they have been population weighted.
- 13.1.25 The proportion of residents which are living in poverty, deprived areas or are considered to be homeless is less than the proportion seen for the West Midlands and England overall (see **Table 13.4**). No LSOAs of the district are in the most deprived top ten percent nationally.

¹²⁶ UK Gov (2021) All schools and colleges in South Staffordshire. Available at: <https://tinyurl.com/3drj5snv> [Accessed 22/07/22]

¹²⁷ NOMIS (2016) Labour Market Profile – South Staffordshire. Available at: <https://www.nomisweb.co.uk/reports/lmp/la/1946157177/report.aspx#> [Accessed 16/08/22]

¹²⁸ Ministry of Housing, Communities and Local Government (2019) English indices of deprivation 2019. Available at: <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019> [Accessed 16/08/22]

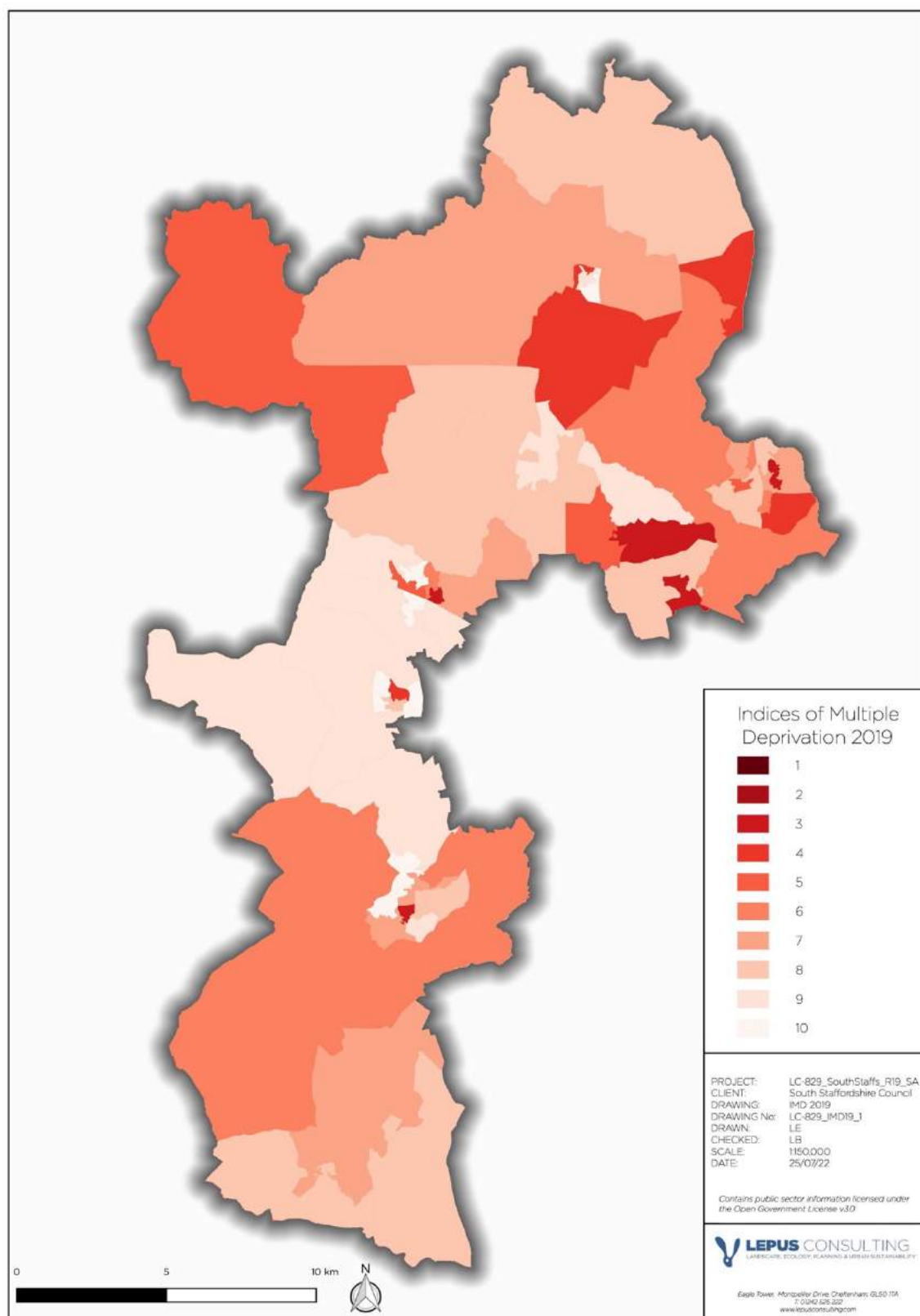


Figure 13.2: Indices of Multiple Deprivation (2019) for the South Staffordshire district

Table 13.4: Poverty, deprivation and homelessness

	South Staffordshire	England
Childhood poverty rate (2017)	12%	30%
Index of multiple deprivation rank (2019)	239	-
People accepted as homeless per 1,000 households (2017)	0.8	2.5

Fuel Poverty

13.1.26 Fuel poverty is defined by the Warm Homes and Energy Conservation Act as being someone living on a lower income in a home which cannot be kept warm at a reasonable cost. The proportion of households in the district which are considered to be fuel poor in 2022 is 12.6%, which is lower than the proportion for Staffordshire County overall (see **Table 13.5**).

Table 13.5: Fuel poverty in the district in comparison to Staffordshire County¹²⁹

Area	Number of households	Number of fuel poor households	Proportion of households fuel poor (%)
Staffordshire County	383,485	58,519	15.3
South Staffordshire	48,051	6,051	12.6

Crime

13.1.27 From December 2021 to March 2022, South Staffordshire recorded 4,625 crimes (see **Figure 13.3**). This was the fourth lowest of all districts within Staffordshire County¹³⁰. The most common crimes within South Staffordshire District are violent crimes, anti-social behaviour and vehicular crime.

¹²⁹ Department for Business, Energy and Industrial Strategy (2022) Sub-regional fuel poverty data 2022. Available at: <https://www.gov.uk/government/statistics/sub-regional-fuel-poverty-data-2022>. [Accessed 22/07/22].

¹³⁰ ONS (2022) Recorded crime data by Community Safety Partnership area. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/datasets/recordedcrimedatabycommunitysafetypartnershiparea>. [Accessed 22/07/22].

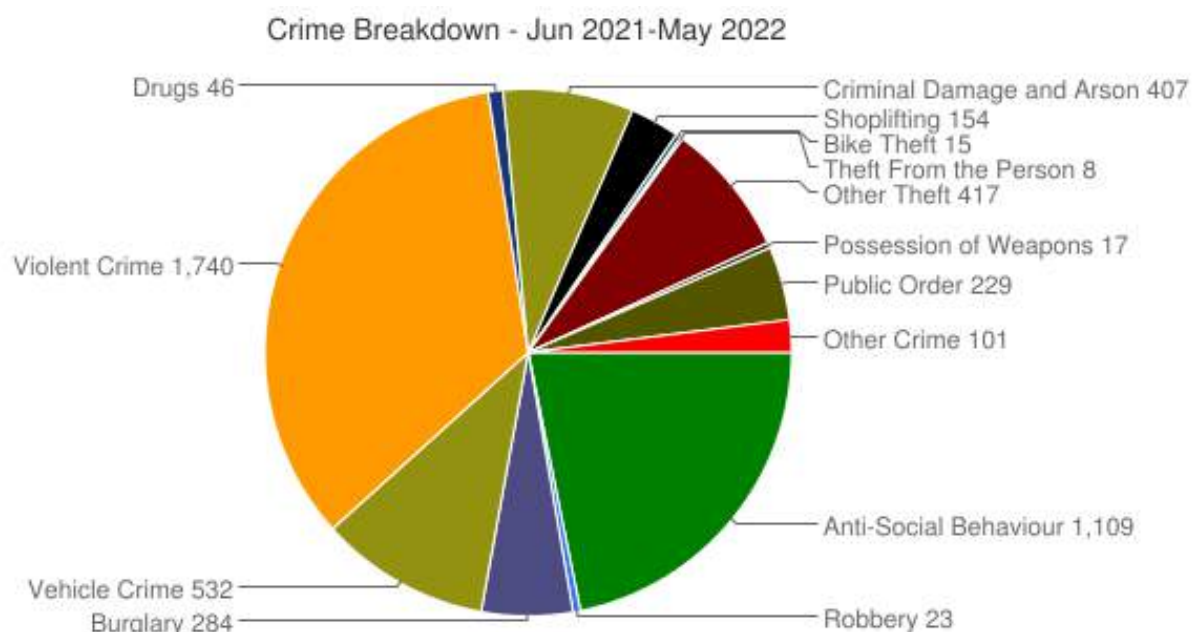


Figure 13.3: Crime breakdown for South Staffordshire District from June 2021 to May 2022 (UK CrimeStats, 2022¹³¹).

Equality

13.1.28 South Staffordshire is home to individuals from many different religions, cultures, communities and backgrounds. According to the 2011 Census, 94.6% of South Staffordshire identified as White, 2% as Asian, 0.5% as Black, 1.4% as Mixed and 0.2% as 'other'¹³². However, the proportion of different communities varies greatly across the region.

13.1.29 The Equality Act 2010¹³³ provides a legal framework to protect individuals from unfair treatment and promotes a fair and equal society. It seeks to highlight and strengthen the laws which prevent discrimination. Under the Equality Act, there are nine protected characteristics:

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

¹³¹ UKCrimeStats (2022) South Staffordshire District, England. Available at: <https://www.ukcrimestats.com/Subdivisions/DIS/14855/>. [Accessed 22/07/22].

¹³² Census (2011) Ethnic group, local authorities. [Accessed 22/07/22].

¹³³ Equality Act 2010. Available at: <http://www.legislation.gov.uk/ukpga/2010/15/contents> [Accessed 16/08/22].

- 13.1.30 The Equality Act focuses of four main types of discrimination: direct discrimination; indirect discrimination; harassment; and victimisation. SSDC is a member of the West Midlands Local Authority Equality Network (WMLAEN)¹³⁴, demonstrating a commitment to providing and promoting equality of opportunity for everybody.

Key issues relating to population and material assets

- ⇒ The most common crimes in the district are associated with violence, anti-social behaviour and vehicular crime.
- ⇒ Overall, the population of the district is slowly increasing. This is predominantly due to increases in those aged over 64. The proportion of the population which is of typical working age (16-64) is decreasing. The biggest increase in population is anticipated in the age bracket of 70-89.
- ⇒ Significantly higher house prices than the national average.

13.2 Impacts on population and material assets

- 13.2.1 **Box 13.1** presents a plan-wide summary of the adverse impacts on population and material assets that have been identified through the SA process. These adverse impacts are those identified prior to mitigation considerations. Consideration of potential pollution impacts on human health and access to health care are considered in **Chapters 7** and **11** respectively. **Box 13.2** lists the policies within the LPR which would be likely to mitigate, either fully or partially, some of the identified adverse impacts on population and material assets. Where mitigating policies are silent, or the contents of the LPR only partially mitigates the adverse impacts, a residual adverse effect is identified. **Box 13.3** explores the nature of these residual effects and, where applicable, provides further recommendations for mitigation or enhancement.

Box 13.1: Summary of identified impacts on population and material assets



Provision of housing to meet local need

- The LPR proposes the development of 9,089 dwellings across the Plan period to 2039. This would be expected to meet the identified housing need and have a positive impact on South Staffordshire's housing provision, and contribute towards the needs of neighbouring authorities within the HMA. The degree to which residents from vulnerable groups, such as those on low incomes and the elderly, would benefit from the increased housing provision would be dependent upon the size, type and tenure of housing provided.

¹³⁴ South Staffordshire District Council (2022) Equality and Diversity Policy. Available at: <https://www.sstaffs.gov.uk/doc/183218/name/Equality%20and%20Diversity%20Policy%20April%202022%20final.pdf/> [Accessed 22/07/22].

Box 13.1: Summary of identified impacts on population and material assets



Provision of employment opportunities

- The LPR proposes the development of 99ha of employment floorspace. The Plan would be likely to have a positive impact on the local economy, as well as the wellbeing of residents. The latest EDNA (2022)¹³⁵ identified a total objectively assessed gross employment land need of 63.6ha for the period 2020 to 2040 for South Staffordshire; as such, the proposals in the LPR would be expected to satisfy the identified requirements for the district, in addition to contributing towards the employment land needs of the Black Country authorities.
- The degree to which residents from vulnerable groups would benefit from increase employment floorspace would be dependent on the use class and locations of the development.



Reduced access to services and facilities

- Some site allocations would be situated outside of the sustainable distance to essential services, such as schools, local convenience stores, publicly accessible open space as well as the local PRoW or cycle networks. Good access to these services is essential to reduce reliance on personal car use, encourage healthy and active lifestyles and provide accessibility to spaces which could potentially have benefits to mental wellbeing and community cohesion.
- 24 site allocations are located outside of the sustainable distance to primary schools, and 29 sites are located outside of the sustainable distance to secondary schools.
- 44 site allocations are located outside of sustainable distances to local convenience stores.
- Sustainable access to healthcare services is considered under **Chapter 11: Human Health**.



Increased pressure on local services and facilities

- The proposed development within the LPR would be expected to increase population density across South Staffordshire. This would be likely to apply greater pressures on the capacity of services within the Plan area, including schools, GP surgeries, leisure centres and open spaces.
- Sustainable access to healthcare services is considered under **Chapter 11: Human Health**.



Effects on community cohesion

- Community cohesion is important to help ensure residents are living happy and healthy lifestyles. Interactive and vibrant communities often benefit from a strong sense of place, a reduced fear of crime and have economic benefits.
- The LPR would be likely to have a positive effect with regard to establishing and maintaining cohesive communities, through seeking to provide a range of housing, employment opportunities and supporting infrastructure to meet the varied needs of the local population.

¹³⁵ DLP Planning Ltd (2022) Economic Development Needs Assessment 2020-2040 for and on behalf of South Staffordshire District Council, June 2022. Available at: <https://www.sstaffs.gov.uk/doc/183444/name/0616KWST5049PSSSDC%20EDNA%202020-2040%20Final.pdf/> [Accessed on 14/09/22]

Box 13.1: Summary of identified impacts on population and material assets



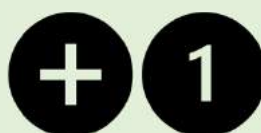
Increased household waste generation

- Waste management is jointly coordinated by the Staffordshire Joint Waste Management Board (JWMB) which incorporates Staffordshire County Council, Stoke-on-Trent City Council and the eight districts and boroughs within Staffordshire, including SSDC. SSDC has responsibility for the provision of collection and recycling services for households as part of the management of waste in the county. It is likely that development of 9,089 dwellings as proposed within the LPR will increase household waste generation in the district.
- The role of the Local Plan in waste management can be to set guidance or requirements for the reduction of construction waste in new development and to ensure design guidance requires new development to accommodate suitable spaces for recycling and waste storage and collection.

13.3 Local Plan mitigation

- 13.3.1 The proposed development within the LPR aims to meet the identified housing and employment needs of the Plan area, as well as contribute towards the identified needs in the wider Greater Birmingham and Black Country HMA. The spatial strategy for the LPR seeks to ensure that most residents are located in close proximity to essential services and facilities and have adequate access to employment opportunities. Policies which would be expected to mitigate or enhance the impact of development on the local population and material assets are discussed in **Box 13.2**.

Box 13.2: Mitigating effects of the LPR planning policies on populations and material assets



Provision of housing to meet local need

Policy DS4 'Development Needs' sets out the delivery of 9,089 homes over the plan period to 2039, which will provide enough homes to meet South Staffordshire's housing requirement as well as contributing towards the unmet housing needs of the Greater Birmingham and Black Country Housing Market Area, in line with the Duty to Cooperate. Policy DS5 sets out the Spatial Strategy to 2039, including the distribution of new development in line with the settlement hierarchy. Allocation policies SA1-SA4 and the over-arching master planning policy MA1 set out specific requirements for the four strategic development locations, and Policy SA5 sets out other housing allocations.

Policy HC9 'Gypsy, Traveller and Travelling Showpeople' sets out requirements for the provision of high quality pitches and plots for the Gypsy, Traveller and Travelling Showpeople communities to ensure that their needs can be addressed in terms of access to essential services and well-designed locations. Allocation Policy SA6 sets out the Gypsy and Traveller allocations.

Policies HC1 and HC2 seek to ensure that an appropriate housing mix and density is delivered to meet needs.

Policy HC3 sets out the requirements for affordable housing provision, including 25% first homes, 50% social rent and 25% shared ownership. The policy requires all major housing development to provide 30% affordable housing.

Policy HC4 supports the provision of accommodation for older residents, and Policy HC5 for those with specialist needs within South Staffordshire. Policy EC6 sets out requirements for the development of dwellings

Box 13.2: Mitigating effects of the LPR planning policies on populations and material assets

for rural workers. Policy HC8 sets out SSDC's support for the provision of self-build and custom housebuilding schemes to meet needs of those wishing to build and customise their own homes.



Provision of employment opportunities

Policy DS4 'Development Needs' sets out the delivery of 99ha of employment land over the plan period to 2039, which will provide enough land to meet South Staffordshire's employment requirement as well as contributing towards the unmet needs of the Black Country Authorities, in line with the Duty to Cooperate. Allocation policy SA7 sets out specific requirements for the employment allocations, including the strategic allocation at the West Midlands Interchange.

Policy EC1 'Sustainable Economic Growth' will seek to support the delivery of the strategic employment areas including the West Midlands Interchange, support opportunities for employment development in Tier 1 and Tier 2 villages and promote diversification of the rural economy.

Policy EC2 'Retention of Employment Sites' seeks to protect existing designated employment areas.

Policy EC4 'Rural Economy' supports rural diversification subject to certain measures.

Policies EC8 'Retail' and EC9 'Protecting Community Services and Facilities' will seek to protect the vibrancy of village centres by ensuring any new residential development does not result in the loss of essential services or facilities.

Policy EC5 'Tourism' supports development proposals for tourist accommodation, Policy EC6 'Rural Working Dwellings' supports accommodation for agricultural and equine workers, and Policy EC7 supports equine related development in certain circumstances. These policies would help to maintain the diversity of employment opportunities in the Plan area, particularly in rural countryside areas.

Policy HC19 'Green Infrastructure' provides the opportunity to improve the local economy through the enhancement of the local environment, increasing property values, attracting inward investment, and potentially supporting economic growth.



Reduced access to services and facilities

Policy EC8 'Retail' will seek to support the vitality of village centres and limit residential development within village centres if it results in the loss of existing facilities.

Policy EC9 'Protecting community services and facilities' seeks to protect and enhance essential communities and facilities, including small local shops and pubs.

Policy EC11 'Infrastructure' seeks to ensure that the plan provides appropriate and proportionate infrastructure to deliver the proposed development, which may help to ensure that there are adequate services to meet the day to day needs of residents within the local area.

Policy EC12 'Sustainable Transport' will ensure that the Council proactively work with partners to "*promote sustainable transport measures and deliver high quality transport infrastructure and links across the District*" and commits to preparing a Local Walking & Cycling Infrastructure Plan to identify strategic opportunities for walking and cycling improvements in the district and seeks to ensure new development is designed to promote high quality walking and cycling routes, both within sites and linking to nearby services and facilities.

Box 13.2: Mitigating effects of the LPR planning policies on populations and material assets

Policy HC14 'Health Infrastructure' seeks to protect existing healthcare infrastructure and ensure that major residential developments are assessed against existing healthcare facilities for potential adverse effect and that contributions towards healthcare infrastructure are prioritised.

Policy HC15 'Education' will seek to protect existing education infrastructure and states that new education infrastructure required as a consequence of the delivery of the housing need would be calculated in line with the Staffordshire Education Infrastructure Contributions Policy.

Policies EC1, EC2, EC4, EC8 and EC9 seek to protect existing employment areas and provide opportunities for small scale employment development in more rural areas. These policies seek to encourage a greater number of local residents to seek local employment opportunities.

Policy HC10 'Design Requirements' requires new development to various accessibility and transport related criteria for proposals to meet in order to be supported, including providing "access to local services and facilities via sustainable modes of transport". The policy will also require new development to accommodate cycle storage and "give safe and convenient ease of movement to all users prioritising pedestrians and cycle users".

Policies HC17 'Open Space', HC18 'Sports Facilities and Playing Fields' and HC19 'Green Infrastructure' set out the requirements for provision of open space, play areas, sports pitches and other informal green spaces which would be likely to help provide different types of publicly accessible open space on new development sites.



Increased pressure on local services and facilities

Policy EC9 'Protecting Community Services and Facilities' sets out to support the provision and enhancement of essential communities and facilities within the Plan area and resist the loss or relocation of community services and facilities unless alternative provisions are made to serve local residents.

Policy EC11 'Infrastructure' seeks to ensure that the plan provides appropriate and proportionate infrastructure to deliver the proposed development, which may help to ensure that there are adequate services to meet the day to day needs of residents within the local area.

Policy HC14 'Health Infrastructure' aims to ensure that major residential development proposals and proposals for specialist elderly accommodation are assessed against the capacity of existing healthcare facilities, and that financial contributions are made where it is demonstrated that existing facilities do not have capacity.

Policy HC15 'Education' will seek to protect existing education infrastructure and states that new education infrastructure required as a consequence of the delivery of the housing need would be calculated in line with the Staffordshire Education Infrastructure Contributions Policy.

Policy MA1 'Master Planning Strategic Sites' sets out various requirements for the development of the four strategic sites, including provision of a "Development Phasing and Delivery Strategy" which should ensure that different aspects of the development including on and off-site supporting infrastructure and new community facilities are delivered alongside the residential growth.



Impacts on community cohesion

Policy HC10 'Design Requirements' sets out various criteria to ensure that development design reflects the local character and positively responds to the existing landform, layout and landscaping, and seeks to deliver a high quality and well-managed public realm. This could help to strengthen sense of place with benefits to the quality of life for residents.

Box 13.2: Mitigating effects of the LPR planning policies on populations and material assets

Policy DS6 'Longer Term Growth Aspirations for a New Settlement' encourages new settlement proposals to create a place with a local identity, and support mixed communities offering a range of housing types to meet varying needs. These measures would be likely to contribute towards creating a diverse and vibrant community.

Policy HC15 'Education' aims to co-locate new facilities with local centres and will support the co-location of compatible community facilities with school provision, which could help to create more cohesive communities.

Policy EC9 'Protecting Community Services and Facilities' sets out SSDC's support for the retention of existing services and facilities to promote social interaction and support healthy inclusive communities.

Policy HC5 'Specialist Housing Schemes' aims to ensure that accommodation for those with specialist needs includes measures to integrate the development within existing communities in order to encourage social interaction, which would help to improve community cohesion especially for more vulnerable residents.



Increased household waste generation

There are no specific policy provisions proposed within the LPR with respect to reducing waste or promoting recycling. However, in line with the Joint Municipal Waste Management Strategy, SSDC is committed to increasing household recycling rates and minimising all forms of waste to landfill¹³⁶.

13.4 Residual effects on population and material assets

13.4.1 Residual effects are those that remain after the application of the LPR mitigating policies. Many of the policies would be expected to have positive residual effects in relation to population, in particular for housing and employment floorspace provision. There is potential for a residual adverse effect in relation to population, in terms of access to and provision of local services and facilities, particularly in the more rural settlements, as well as in relation to material assets as the growth set out in the LPR would be likely to increase household waste generation over the Plan period. Residual effects in relation to population and material assets are discussed further in **Box 13.3**.

Box 13.3: Residual effects and recommendations for population and material assets

Residual effects	Further details of the residual effect
Provision of housing to meet local need	<p>In order to meet the identified housing need, the LPR proposes to deliver 9,089 new dwellings within the Plan period. Policies set out in the Plan, as discussed within Box 13.2, include various requirements to ensure the provision of an appropriate mix of housing types and tenures that will address the needs of different groups including those with specialist needs, first time home buyers, and the Gypsy and Traveller community.</p> <p>The Plan seeks to deliver the identified housing need and contribute towards the needs of the wider HMA. A major positive residual effect on housing is anticipated.</p>

¹³⁶ Staffordshire Waste Partnership (2013) 2013 Refresh of the Joint Municipal Waste Management Strategy for Staffordshire & Stoke-on-Trent (2007-2020). Available at: <https://www.staffordshire.gov.uk/Waste-and-recycling/wastestrategy/Documents/2013-Refresh-Headline-Strategy.pdf> [Accessed 22/09/22]

Residual effects	Further details of the residual effect
Provision of employment opportunities	<p>The Plan seeks to deliver 99ha of employment land, meeting the need identified in the latest EDNA. Various LPR policies would also be expected to improve access to employment opportunities, including through provision of sustainable transport options and by aiming to locate employment-led development in areas with good accessibility with respect to the strategic road network.</p> <p>The Plan seeks to deliver the identified employment need and contribute towards the unmet needs of the Black Country authorities. The Plan also seeks to provide sustainable transport choices to access employment opportunities. A major positive residual effect on employment provision is anticipated.</p>
Access to, and demand on, local services and facilities	<p>Various LPR policies, as discussed in Box 13.2, would be expected to improve accessibility to sustainable transport options including public transport, pedestrian and cycle networks, and encourage the uptake of these travel options in order to access community facilities. Policy EC11 in particular, seeks to ensure that appropriate and proportionate infrastructure is secured by developers and landowners to deliver the proposed development, which may help to ensure that there are adequate services to meet the day to day needs of residents within the local area.</p> <p>Whilst the LPR policies seek to maintain and enhance local services and facilities as far as possible, these policies would not be expected to fully mitigate the restricted access to local facilities for some areas, particularly those in lower-tier settlements.</p>
Improved community cohesion	<p>The LPR policies set out SSDC's support for improved community cohesion, including through seeking to ensure that the diverse accommodation needs of the population can be met, protecting community services and facilities, and by encouraging development proposals to incorporate careful design which delivers a high quality public realm and considered opportunities to co-locate new development with community facilities and open spaces.</p> <p>The impact of this broad range of policy interventions is anticipated to improve community cohesion through improving opportunities for social interaction, sense of place and reducing social inequalities.</p> <p>A minor positive residual effect on community cohesion is anticipated.</p>
Increased household waste generation	<p>There are no specific policy provisions proposed within the LPR with respect to reducing waste or promoting recycling. However, in line with the Joint Municipal Waste Management Strategy, SSDC is committed to increasing household recycling rates and minimising all forms of waste to landfill¹³⁷.</p> <p>It is difficult for the LPR to specifically reduce waste generation within the Plan area. Although national trend data indicates a general decrease in household waste generation over time, the introduction of 9,089 new households would be expected to increase waste production to some extent.</p> <p>An increase in household waste generation could potentially be a long-term and permanent significant effect.</p>

¹³⁷ Staffordshire Waste Partnership (2013) 2013 Refresh of the Joint Municipal Waste Management Strategy for Staffordshire & Stoke-on-Trent (2007-2020). Available at: <https://www.staffordshire.gov.uk/Waste-and-recycling/wastestrategy/Documents/2013-Refresh-Headline-Strategy.pdf> [Accessed 22/09/22]

14 Soil

14.1 Baseline

- 14.1.1 Soil is an essential and non-renewable resource that provides a wide range of ecosystem services. It filters air, stores and cycles water and nutrients, decomposes and cycles organic matter, supports plant growth and provides medicines¹³⁸. Soil is also one of the most important natural carbon sinks globally and its protection is vital in efforts to mitigate anthropogenic climate change. It can reduce flood risk, alleviate flood damage and improve local water and air quality to the benefit of ecosystem and human health.
- 14.1.2 In accordance with the core planning principles of the NPPF¹³⁹, development on previously developed land is recognised as an efficient use of land. Development on previously undeveloped land is not considered to be an efficient use of land.
- 14.1.3 For development to be sustainable, decision makers must make best efforts to conserve soil resources. Development such as that proposed in the LPR can potentially adversely impact soil stocks, such as by direct loss of soil (e.g. excavation during construction), contamination, increased erosion and breakdown of structure and loss of nutrients. In recent years, soils in the UK have rapidly degraded, predominantly due to intensive agricultural production and industrial pollution. The UK's soil continues to face three main threats, each of which will be exacerbated by climate change¹⁴⁰:
- Soil erosion by wind and rain (it is estimated that the UK loses 2.2 million tonnes of topsoil every year due to wind and water erosion);
 - Compaction; and
 - Organic matter decline.
- 14.1.4 Construction on land has the potential to exacerbate compaction of soils and the decline in organic matter, whilst all three of the above threats are expected to be exacerbated by climate change.
- 14.1.5 Soils across South Staffordshire are varied (see **Table 14.1**). Most of the areas support arable habitats. The soil across the Plan area ranges between low and high fertile soils and low and high carbon storage.

¹³⁸ Food and Agriculture Organization of the United Nations (2020) Soil ecosystem services. Available at: <http://www.fao.org/agriculture/crops/thematic-sitemap/theme/spi/soil-biodiversity/soil-ecosystems-services/en/> [Accessed 16/08/22]

¹³⁹ Ministry of Housing, Communities and Local Government (2019) National Planning Policy Framework. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2>. [Accessed 21/07/22].

¹⁴⁰ Department for Environment, Food & Rural Affairs (2009) Safeguarding our soils – A strategy for England. Available at: <https://www.gov.uk/government/publications/safeguarding-our-soils-a-strategy-for-england>. [Accessed 21/07/22].

Table 14.1: Most prominent/common soils in the district¹⁴¹

Soil	Texture	Permeability	Fertility	Carbon storage	Ground cover
Freely draining slightly acid sandy soils	Sandy	Freely draining	Low	Low	Neutral and acid pastures, woodland, bracken and gorse
Freely draining slightly acid loamy soils	Loamy	Freely draining	Low	Low	Acid dry pastures, arable, deciduous and coniferous woodland
Slightly acid but base-rich loamy clayey soils	Loamy and clayey	Slowly permeable	Moderate	Low	Seasonally wet pastures, woodland, grassland, arable
Slightly acid loamy and clayey soils	Loamy and clayey	Impeded drainage	Moderate to high	Low	Arable and grassland

Agricultural Land Classification

The Agricultural Land Classification (ALC) system classifies land into five categories according to versatility and suitability for growing crops. The top three grades, Grades 1, 2 and Subgrade 3a, are referred to as the 'best and most versatile' (BMV) land. Where site-specific ALC studies have not been completed, it is not possible to identify Subgrade 3a and 3b land. Therefore, a precautionary approach is taken, and potential BMV land is assessed as Grades 1, 2 and 3. The grades are as follows:

- **Grade 1** – excellent quality agricultural land
- **Grade 2** – very good quality agricultural land
- **Grade 3** – good to moderate quality agricultural land
 - **Subgrade 3a** – good quality agricultural land
 - **Subgrade 3b** – moderate quality agricultural land
- **Grade 4** – poor quality agricultural land
- **Grade 5** – very poor quality agricultural land

- 14.1.6 The majority of South Staffordshire is situated on land classified as Grade 2 and Grade 3 ALC land (see **Figure 14.1**). The majority of the Grade 2 ALC soils are distributed throughout the district, with a small area of Grade 1 ALC soils located in the west, near to Pattingham.
- 14.1.7 Paragraph 170 of the NPPF states “*planning policies and decisions should contribute to and enhance the natural and local environment by ... recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land*”.
- 14.1.8 The issue of soil was primarily taken into consideration under SA Objective 6 'Natural Resources' which aims to protect, enhance, and ensure efficient use of, the district's land, soils and water. Soils have been considered to some extent under SA Objectives 2 'Climate Change Adaptation' and 3 'Biodiversity and Geodiversity'.

¹⁴¹ Cranfield University (2017) Soilscales, Available at: <http://www.landis.org.uk/soilscales/> [Accessed 21/07/22].

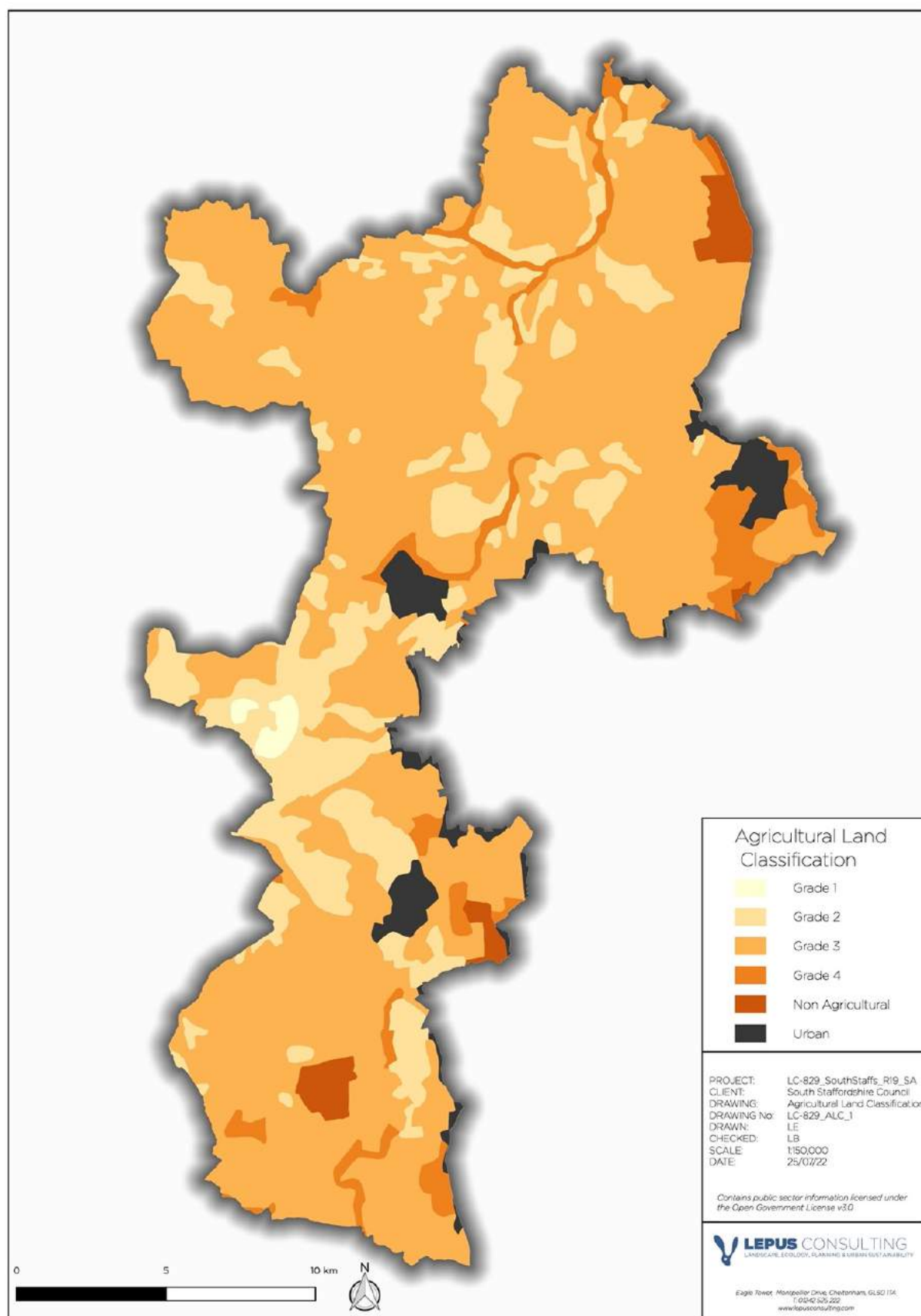


Figure 14.1: Agricultural Land Classifications (ALC) across the South Staffordshire District

Key issues relating to soil

- ⇒ Soils in the district are well equipped to support woodland, grassland and agriculture.
- ⇒ Soils in the district often have impeded drainage, which could potentially increase the risk of surface water flooding.
- ⇒ Most of the district is positioned on valuable soil types
- ⇒ Soils present in South Staffordshire have low carbon storage capacity.

14.2 Impacts on soil

14.2.1 **Box 14.1** sets out a plan-wide summary of the likely impacts on soil that have been identified through the SA process. These impacts are those identified prior to the consideration of mitigation in the form of LPR policies. **Box 14.2** lists the LPR policies which would be likely to mitigate, either fully or partially, the identified impacts. Where mitigating policies are silent, or the contents of the LPR only partially mitigates the adverse impacts, a residual adverse effect is identified. **Box 14.3** explores the nature of these residual effects and, where applicable, provides further recommendations for mitigation or enhancement.

Box 14.1: Summary of identified impacts on soil



Direct loss of soil resources and BMV land

- The LPR proposes the development of 68 allocations delivering 9,089 dwellings and 99ha of employment floorspace across the Plan area. Of these 68 sites, 51 allocations are wholly or partially located on previously developed land. Based on the indicative areas of these 51 sites, the LPR could result in the loss of up to approximately 813ha of previously undeveloped land¹⁴². The development of new buildings on previously undeveloped land would be expected to result in a direct loss of soil resource, with little or no scope for mitigation.
- BMV land is defined through the Agricultural Land Classification system as Grades 1, 2 and 3a (soil which is most flexible, productive and efficient in response to inputs and which can best deliver food and non-food crops for future generations). Up to approximately 788ha of BMV land could be lost as a result of the development proposed in the LPR.



Impact on ecosystem services

- Soil provides a range of essential services to the local area, including nutrient cycling, abating flood risk, filtering water, filtering air, carbon storage and providing the basis for vegetation to flourish. In order for soil to continue providing each service, careful consideration should be given to its structure and stability. Where construction occurs, soil could potentially be compacted by heavy vehicles on-site. During the occupation or operation phase of development, soil, in some circumstances, could potentially be paved over, become subject to increased footfall or be subject to increased volumes of fertilisers and other chemicals.

¹⁴² Please note this figure is based on gross site areas and so does not take into account net developable areas excluding new open space / green infrastructure provision or sites which are already partially developed.

14.3 Local Plan mitigation

- 14.3.1 The LPR seeks to promote an efficient use of natural resources and encourages new development to protect and enhance valued soils including BMV land, where possible. These policies are discussed in **Box 14.2**.

Box 14.2: Mitigating effects of the LPR planning policies on soil



Policy mitigation for direct loss of the soil resources and BMV land

Policy DS3 'Open Countryside' states *"All types of development in the Open Countryside which are not explicitly supported by Policy DS3 will be considered on a case-by-case basis. Such proposals will only be permitted where they are not located on best and most versatile agricultural land."*

Policy HC2 'Housing Density' may help to reduce the overall land-take to deliver housing needs across the Plan area and may serve to reduce negative effects on soil loss and loss of Best and Most Versatile (BMV) agricultural land, although this effect is uncertain as it would be dependent on the locations for development.

Policy EC1 'Sustainable Economic Growth' gives preference to the *"use of sustainable previously developed land for employment development"* and could potentially prevent the loss of some local soils.

Policy NB1 'Protecting, Enhancing and Expanding Natural Assets' states that *"Valued soils will be protected and enhanced, including the best and most versatile agricultural land, and development should not contribute to unacceptable levels of soil pollution"*.



Policy mitigation for impact on ecosystem services

Policies HC1 'Housing Mix', HC2 'Housing Density' and HC10 'Design Requirements' promote an efficient use of land for new development, including appropriate sizes of dwellings to meet local needs.

Policies HC17 'Open Space', HC18 'Sports Facilities and Playing Fields' and HC19 'Green Infrastructure' set out the requirements for provision of open space, play areas, sports pitches and other informal green spaces which would be likely to contribute towards retention and enhancement of green infrastructure and ecological assets alongside built development.

Policy NB1 'Protecting, Enhancing and Expanding Natural Assets' encourages the restoration, enhancement and creation of habitats and linkages, particularly where these contribute to the Nature Recovery Network. This would be expected to help mitigate negative ecological impacts associated with development.

14.4 Residual effects on soil

14.4.1 Policies within the LPR seek to mitigate some of the adverse impacts identified with regard to soils. The LPR includes measures to reduce the quantity of soil lost to development, including directing development towards existing urban areas including previously developed land, ensuring green infrastructure and open spaces are maximised, and promoting the efficient use of land such as through ensuring appropriate housing densities. However, some site allocations are situated on previously undeveloped land. The policies within the LPR cannot fully mitigate the adverse impacts of development on ecologically and agriculturally important soils. **Box 14.3** sets out the residual adverse effects of the LPR on soil, and any recommendations which could potentially further mitigate these impacts.

Box 14.3: Residual effects and recommendations for soil

Residual effects	Further details of the residual effect
Loss of soil resources and BMV land	<p>51 allocated sites either partially or wholly comprise undeveloped land and would be likely to result in the loss of soil resources, to some extent. The proposed allocations would cumulatively result in the loss of up to approximately 813ha of previously undeveloped land¹⁴³. The loss of permeable soils could potentially increase the risk of flooding and result in a loss of biodiversity across the Plan area. Loss of soil can also result in an increase in soil erosion and have subsequent impacts on air quality and agricultural yield. Therefore, a residual adverse effect would be expected.</p> <p>The loss of approximately 813ha of previously undeveloped land, approximately 788ha of which could include BMV land, would be expected to be a long-term and permanent significant effect.</p>
Impact on ecosystem services	<p>Paragraph 170(b) of the NPPF requires planning policies and decisions to enhance the natural environment by “<i>recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services</i>”.</p> <p>Several Local Plan policies aim to increase provision and connectivity of green infrastructure across the Plan area, which would be expected to mitigate potential adverse impacts due to the proposed development; however, the proposed development would be expected to reduce the ability of the local soil biome to effectively provide ecosystem services. A residual adverse effect would be expected.</p> <p>The loss of ecosystem services would be likely to be a long-term and permanent significant effect.</p>

¹⁴³ Please note this figure is based on gross site areas and so does not take into account net developable areas excluding new open space / green infrastructure provision or sites which are already partially developed.

15 Water

15.1 Baseline

Flood risk

- 15.1.1 The frequency of extreme weather events is likely to increase during the plan period, and beyond, due to the changing climate. In South Staffordshire, increased risk of fluvial and surface water flooding is of primary concern. The main watercourses that pass through South Staffordshire include the River Penk, River Stour, Moat Brook, Wom Brook, Saredon Brook, and Smestow Brook. A complex network of waterways course through South Staffordshire district, which is positioned within catchments for the River Severn and River Humber.
- 15.1.2 Within South Staffordshire, areas of Flood Zone 2 and 3 can be found particularly within the centre and north of the district (see **Figure 15.1**). Flood Zones coincide with watercourses, particularly the River Stour, River Penk, Smestow Brook and Saredon Brook, as well as other small subsidiary watercourses which branch from these larger channels. These areas have a risk of fluvial flooding which is greater than 3.3% each year. Approximately 1,540ha of the Plan area is in Flood Zone 3. In line with the NPPF, careful consideration should be given to the level of flood risk new residents are exposed to, as well as the impacts of development on risk.
- 15.1.3 In addition to river flooding, other potential sources of flooding within South Staffordshire include groundwater flooding, sewer flooding, and surface water flooding¹⁴⁴.
- 15.1.4 Areas of high, medium and low surface water flood risk are present across the Plan area (see **Figure 15.1**). Surface water flood risk typically follows roads and natural watercourses.
- 15.1.5 Flood risk is exacerbated by loss of vegetation, soil erosion, climate change, extreme weather and urbanisation.
- 15.1.6 It is good practice to make allowances for climate change in flood risk assessments¹⁴⁵. Allowing for the impacts of climate change helps to minimise vulnerability whilst providing greater resilience to flooding by anticipating changes to peak river flows, peak rainfall intensities, sea level rise and offshore wind speeds. Climate change allowances are based on climate change projections under different CO₂ scenarios.

¹⁴⁴ Environment Agency (2009) Flooding in England; national assessment of flood risk. Available at: <https://www.gov.uk/government/publications/flooding-in-england-national-assessment-of-flood-risk> [Accessed 12/08/22]

¹⁴⁵ Environment Agency (2022) Flood risk assessments: climate change allowances. Available at: <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances> [Accessed 16/08/22]

Green Infrastructure

15.1.7 Green Infrastructure (GI) is a network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities¹⁴⁶. 'Blue Infrastructure' is also a term used to refer to rivers, canals, wetlands and other water-based assets that can integrate and link with GI. GI has many benefits including human health, climate change adaptation and wildlife value¹⁴⁷. GI can play an important role in helping urban areas adapt to climate change by filtering airborne pollutants, providing shade and local cooling and reducing surface water runoff¹⁴⁸.

15.1.8 Future proposed GI developments in South Staffordshire on the edge adjacent to Wolverhampton should integrate with any existing or potential GI networks in Wolverhampton¹⁴⁹.

Water resources

15.1.9 The main water service provider for South Staffordshire is 'South Staffs Water', who provide water to around 1.7 million people. The annual performance summary for 2021-2022 states that future developments are needed to end water poverty, protect and enhance the environment and adapt to climate change¹⁵⁰.

15.1.10 SSDC produced a Surface Water Management Programme (SWMP) report, providing recommendations for 'red zones' in areas like Penkridge, as well as recommendation improvements to data sharing and SuDS¹⁵¹.

15.1.11 South Staffs Water's Water Resources Management Plan (WRMP)¹⁵² sets out the long term management of water resources for the 25 year period between 2020 and 2045 and how the needs of the population will be met. The WRMP identifies significant challenges likely to be encountered over the next 25 years, including:

- Significant investment is required in the two major water treatment works to ensure water availability to meet growing demands;
- Without intervention, there is increasing risk of deterioration of the environment as a result of water abstractions; and

¹⁴⁶ MHCLG (2021) National Planning Policy Framework. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2> [Accessed 16/08/22]

¹⁴⁷ Forest Research (2010) Benefits of green infrastructure. Available at: https://cdn.forestresearch.gov.uk/2010/10/urqp_benefits_of_green_infrastructure.pdf [Accessed 16/08/22]

¹⁴⁸ Landscape Institute (no date) Green Infrastructure (GI). Available at: <https://www.landscapeinstitute.org/policy/green-infrastructure/>. [Accessed 16/08/22]

¹⁴⁹ City of Wolverhampton Council (2021) South Staffordshire Local Plan Preferred Options Consultation. Available at: <https://wolverhampton.moderngov.co.uk/documents/s193621/South%20Staffordshire%20Local%20Plan%20Preferred%20Options%20Consultation.pdf> [Accessed 26/07/22]

¹⁵⁰ South Staffs Water (2022) Annual Performance Report 2021/22. Available at: <https://www.south-staffs-water.co.uk/media/4036/annual-performance-report-summary-2022.pdf> [Accessed 22/07/22].

¹⁵¹ Royal Haskoning (2010) Southern Staffordshire Surface Water Management Plan. Available at: <https://www.sstaffs.gov.uk/doc/171944/name/SWMP%5FFINAL1.pdf/> [Accessed 22/07/22]

¹⁵² South Staffs Water (2019) Water Resources Management Plan 2019. Available at: <https://www.south-staffs-water.co.uk/media/2676/final-wrmp-2019-south-staffs-water.pdf> [Accessed 22/08/22]

- There is a need to reduce leakage in the water network.

15.1.12 The Southern Staffordshire Water Cycle Scoping Study (WCS)¹⁵³ assesses development proposals in South Staffordshire in regard to water supply capacity, wastewater capacity and environmental capacity. The study then seeks to inform future demonstrable solutions to the key constraints, including policy recommendations.

15.1.13 The WCS identifies that there is likely to be a supply-demand deficit in South Staffordshire between 2024-2026, based on current development projections.

15.1.14 The WCS also states that *“Policies to reduce water demand from new developments, or to go further and achieve water neutrality in certain areas, could be defined to reduce the potential environmental impact of additional water abstractions in Southern Staffordshire, and also help to achieve reductions in carbon emissions”*.

Groundwater

15.1.15 The vulnerability of groundwater to pollution is determined by the physical, chemical and biological properties of the soil and rocks. The Environment Agency (EA) has published details about how they manage and protect groundwater¹⁵⁴. Groundwater Source Protection Zones (SPZs) indicate the risk to groundwater supplies from potentially polluting activities and accidental releases of pollutants.

15.1.16 There are three SPZs¹⁵⁵ in the plan area:

- SPZ 1 – Inner Protection Zone: the 50-day travel time from any point below the water table to the source;
- SPZ 2 – Outer Protection Zone: the 400-day travel time from a point below the water table, with a minimum radius of 250-500m; and
- SPZ 3 – Source Catchment Protection Zone: area around source within which all groundwater recharge is discharged at the source.

15.1.17 The majority of South Staffordshire is located within SPZ 3, with smaller areas within SPZ 3 also covered by SPZ 1 and 2 such as around Smestow Brook and the River Stour (see **Figure 15.2**).

¹⁵³ JBA Consulting (2020) Southern Staffordshire Councils Water Cycle Study – Phase 1 Scoping Study. Available at: <https://tinyurl.com/2p88kscz>. [Accessed 22/07/22]

¹⁵⁴ Environment Agency (2018) The Environment Agency's approach to groundwater protection, February 2018, Version 1.2. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/692989/Environment-Agency-approach-to-groundwater-protection.pdf. [Accessed 16/08/22]

¹⁵⁵ Environment Agency (2019) Groundwater Source Protection Zones. Available at: <https://www.gov.uk/guidance/groundwater-source-protection-zones-spzs> [Accessed 16/08/22]

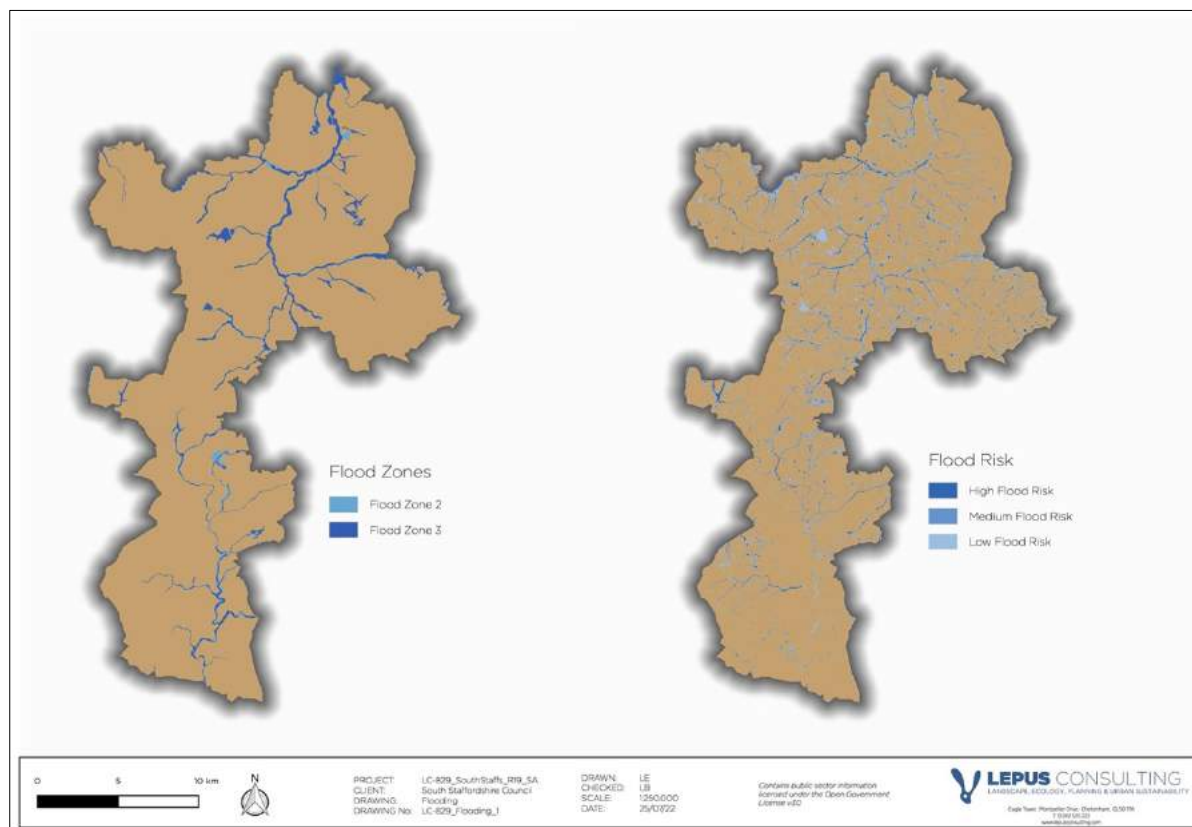


Figure 15.1: Flood zones and areas of flood risk in the South Staffordshire District

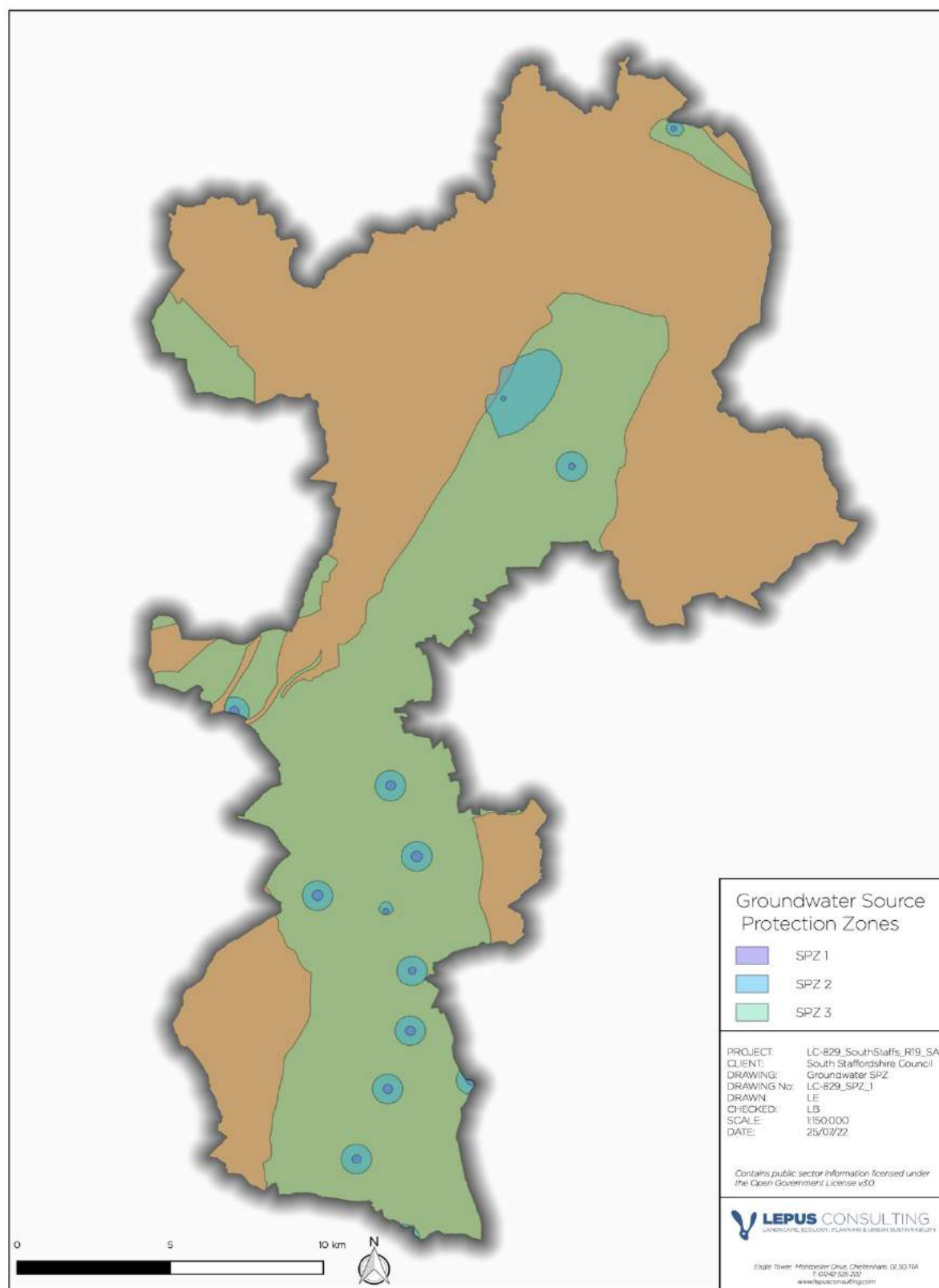


Figure 15.2: Groundwater Source Protection zones across South Staffordshire District

Key issues relating to water

- ⇒ There are areas of groundwater source protection zones in the district.
- ⇒ Water demand is set to increase beyond supply in South Staffordshire, without intervention.
- ⇒ A large proportion of South Staffordshire is within zones prone to flooding.

15.2 Impacts on water

15.2.1 **Box 15.1** presents a plan-wide summary of the adverse impacts on water that have been identified through the SA process. These adverse impacts are those identified prior to mitigation considerations. **Box 15.2** lists the policies within the LPR which would be likely to mitigate, either fully or partially, some of the identified adverse impacts on water. Where mitigating policies are silent, or the contents of the LPR only partially mitigates the adverse impacts, a residual adverse effect is identified. **Box 15.3** explores the nature of these residual effects and, where applicable, provides further recommendations for mitigation or enhancement.

Box 15.1: Summary of identified impacts on water



Fluvial flood risk

- Development within Flood Zones 2 or 3 (including 3a and 3b) has the potential to locate site end users at risk of fluvial flooding, may increase the risk of damage to property and increase risks to human health in the immediate area and/or contribute to exacerbation of flood risk in the surrounding areas.
- The majority of allocated sites are located in Flood Zone 1; however, 12 of the allocated sites coincide with some areas of Flood Zones 2 and 3. This includes: residential-led Sites 519, 617, 646a/b, 010, 420, 584 and 284; employment-led Sites E18 and E24; and Gypsy and Traveller Site GT32.



Surface water flood risk

- Development in areas of surface water flood risk may locate site end users in areas at risk of flooding, with safety implications, and further exacerbate flood risk in the surrounding area.
- A total of 33 allocated sites coincide with varying extents of surface water flood risk, including 17 sites with some land identified as high risk.



Reduction in water quality and ecosystem services

- Development and urbanisation can be associated with adverse impacts on water quality, with implications for biodiversity and the function of ecosystem services. This includes risks of water pollution associated with runoff from roads, and from water outflows during storm conditions. The WCS Scoping Study¹⁵⁶ states that “The increased wastewater discharges at the WWTWs serving growth in

¹⁵⁶ JBA Consulting (2020) Southern Staffordshire Councils Water Cycle Study – Phase 1 Scoping Study. Available at: <https://tinyurl.com/2p88kscz>. [Accessed 22/07/22]

Box 15.1: Summary of identified impacts on water

Southern Staffordshire have the potential to impact downstream water quality in the receiving watercourses, with ammonia being the water quality indicator that appears to be the most sensitive to increased effluent flows”.

- Water provides a range of essential ecosystem services, including, providing the basis for vegetation to flourish and supporting biodiversity. In order for water to continue providing each service, careful consideration should be given to development proposals which could potentially have an adverse impact on water quality.
- The majority of the allocated sites (51 sites) are located either wholly or partially on previously undeveloped land. The construction and occupation of these developments has the potential to increase the risk of contamination and pollution of waterways, primarily due to the potential loss of soil and disruption to the groundwater sources.
- 32 allocated sites are located in close proximity to local watercourses where the proposed housing or employment development could affect water quality through pollution of surface water runoff.
- SPZs cover a large proportion of South Staffordshire, with the majority of the district falling within SPZ 3, with smaller areas within SPZ 3 also covered by SPZ 1 and 2 such as around Smestow Brook and the River Stour. These zones indicate the potential risks of different types of development for groundwater quality. 37 allocated sites are located within an SPZ, and therefore, there could potentially be an overall increase in the risk of groundwater contamination or pollution in the Plan area.



Increased water demand

- Based on an average of 2.3 people per dwelling in South Staffordshire¹⁵⁷, the proposed development of approximately 9,089 dwellings over the Plan period could increase the local population by approximately 20,905 new residents. Subsequently, this growth would be likely to increase water demand across the Plan area.
- The South Staffs Water WRMP identified a supply-demand deficit under the baseline scenario if no action is taken. The WRMP also identified a range of actions to take over a 25-year period to address this supply-demand deficit, including infrastructure improvements and encouraging behavioural change of consumers, to ensure that there are adequate water resources for all proposed development sites. With regard to water resources, the WCS Scoping Study concluded that “*On the basis that there is a plan to address the supply-demand deficit, and sufficient time to adapt the long-term plan to include emerging trends in population, no further assessment is recommended as part of a Phase 2 Outline study*”.



Increased pressure on wastewater treatment

- The proposed development of 9,089 new dwellings within South Staffordshire would be expected to increase the local population by approximately 20,905 new residents, and subsequently, increase the demand for wastewater treatment across the Plan area.
- The Phase 1 WCS found that significant new infrastructure and upgrades to existing network and wastewater treatment works will be required to accommodate growth and recommends early engagement with water companies and that more detailed study is undertaken with regard to the wastewater network. The WCS states that “*Further study of the wastewater network is recommended as*

¹⁵⁷ Based on 2021 Census population data (110,500) and 2021 dwelling stock information (48,064).

ONS (2022) Population and household estimates, England and Wales: Census 2021. Available at:

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/populationandhouseholdestimatesenglandandwales/census2021> and DLUHC & MHCLG (2022) Live tables on dwelling stock. Available at:

<https://www.gov.uk/government/statistical-data-sets/live-tables-on-dwelling-stock-including-vacants> [Accessed 26/08/22]

Box 15.1: Summary of identified impacts on water

part of a Phase 2 Outline as the Local Plans develop and the SSCs have greater certainty over which sites will be brought forward for development”.

15.3 Local Plan mitigation

- 15.3.1 Policies within the LPR, primarily Policy NB7, aim to reduce flood risk, prevent the decrease of water quality and improve water efficiency in new developments within the Plan area. The provision of green infrastructure and open spaces through various other Local Plan policies would also be expected to slow infiltration and help alleviate flood risk to some extent. The policies are discussed in detail in **Box 15.2**.

Box 15.2: Mitigating effects of the LPR planning policies on water



Fluvial and surface water flood risk

Policy NB7 ‘Managing Flood Risk, Sustainable Drainage Systems & Water Quality’ seeks to manage fluvial and surface water flood risk, through the requirement for site-specific Flood Risk Assessments and surface water drainage strategies for all developments. Site-specific flood risk assessments, such as the sequential and exception tests, should be in accordance with national requirements and take account of the latest climate change allowances. Policy NB7 would ensure that all major development proposals or those including large areas of hardstanding provide appropriate SuDS, and the policy also advocates for the incorporation of SuDS schemes alongside open space provision where appropriate.

Policy HC19 ‘Green Infrastructure’, Policy EC1 ‘Sustainable Economic Growth’ and Policy NB1 ‘Protecting, Enhancing and Expanding Natural Assets’ seek to protect and create green infrastructure in development proposals and could lead to various benefits including reduced water runoff rates and therefore mitigate fluvial and surface water flooding to some extent.

Policy HC9 ‘Gypsy, Traveller and Travelling Showpeople’ seeks to locate new plots and pitches in locations which avoid areas of high flood risk.

Policy DS6 ‘Longer Term Growth Aspirations for a New Settlement’ includes consideration of ‘future-proofing’ new settlement proposals, including requirements to ensure that the development has allowed for the impacts of climate change including flooding risk and water availability.



Reduction in water quality and ecosystem services

Policy NB7 ‘Managing Flood Risk, Sustainable Drainage Systems & Water Quality’ requires major development proposals to deliver sustainable drainage systems and that new development proposals located within Flood Zones 2 and 3 provide a site-specific flood risk assessment and surface water drainage strategies. The policy states that development should not adversely affect the quality or quantity of water, either directly through pollution of surface or ground water or indirectly through the treatments of wastewater.

Policy HC19 ‘Green Infrastructure’ seeks to increase green infrastructure provision in developments which may help to control water runoff quality to some extent, through natural filtration.

Box 15.2: Mitigating effects of the LPR planning policies on water



Increased demand for water and wastewater treatment

Policy NB6 'Sustainable Construction' aims to ensure that all residential schemes are compliant with a water efficiency standard of 110 litres/person/day and states that developments should include measures for the reuse and recycling of water and rainwater harvesting wherever feasible. These measures would be likely to reduce demand on mains water supply.

Policy NB7 'Managing Flood Risk, Sustainable Drainage Systems & Water' states that all development proposals must demonstrate "adequate water supply, sewerage and land drainage systems (including water sources, water and wastewater infrastructure) to serve the whole development, or an agreement with the relevant service provider to ensure the provision of the necessary infrastructure prior to the occupation of the development".

15.4 Residual effects on water

- 15.4.1 Residual adverse effects would be expected to remain in terms of demand for wastewater management following the implementation of the LPR policies. Further details, and potential recommendations to help mitigate or monitor these adverse impacts are presented in **Box 15.3**.

Box 15.3: Residual effects and recommendations for water

Residual effects	Further details of the residual effect
Fluvial and surface water flood risk	<p>Policy NB7 seeks to ensure more vulnerable development is located in appropriate Flood Zones, or subject to the sequential test and exception test, and sets out the requirements for the appropriate management of surface water.</p> <p>A Strategic Flood Risk Assessment (SFRA) has been prepared, and SSDC has been consulting with the Environment Agency through the Local Plan's preparation to ensure the sequential test is properly followed. Furthermore, SSDC will, where possible, avoid putting vulnerable uses within Flood Zones 2 and 3, ensuring any sites allocated containing areas of Flood Zones 2 and 3 give these areas over to water compatible uses (e.g. green infrastructure) as set out in the LPR policies.</p> <p>The Level 2 SFRA¹⁵⁸ includes detailed assessments of seven proposed site options with identified areas of flood risk and sets out a range of requirements and guidance to ensure that future users of the development will not be placed in danger from flood hazards throughout its lifetime. Recommendations for planning policies and guidance for windfall sites are also set out in this document.</p> <p>The WCS states that "The impact of increased effluent flows is unlikely to have a significant impact on the flood risk of the receiving watercourses of WwTW serving growth in Southern Staffordshire, with the exception of Little Aston WwTW. This is, however, assuming 100% of proposed sites will come forward which is unlikely, therefore the flood risk impact for the final sites should be considered as part of a Phase 2 study".</p> <p>The SFRA process combined with these policies would be expected to mitigate potential adverse impacts associated with development in areas at risk of fluvial or surface water</p>

¹⁵⁸ JBA Consulting (2022) South Staffordshire Council Level 2 Strategic Flood Risk Assessment. Draft Report, July 2022.

Residual effects	Further details of the residual effect
	flooding. Subject to achieving the mitigation recommendations set out in the Level 2 SFRA and WCS, a residual negligible impact on fluvial flooding would be expected.
Reduction in water quality and ecosystem services	<p>As outlined in Box 15.2, several LPR policies would be expected to help protect and enhance water quality, by ensuring that development proposals incorporate sustainable drainage systems. Policy NB7 in particular states that development should not adversely affect the quality or quantity of water, either directly through pollution of surface or ground water or indirectly through the treatments of wastewater. Other policies such as HC19 seek to increase provision of green infrastructure across the Plan area, which would also be likely to mitigate potential adverse impacts arising due to the proposed development by helping to control water runoff quality to some extent, through natural filtration.</p> <p>The PO HRA (2021)¹⁵⁹ identified likely significant effects regarding water issues at Motte Meadows SAC arising from housing in close proximity to the SAC.</p> <p>With regard to environmental constraints, the WCS Scoping Study stated that “<i>A number of Sites of Special Scientific Interest (SSSIs) exist within Southern Staffordshire and there is a possibility of point source pollution (from WwTW) or diffuse pollution (for example from surface runoff from development) to impact these sites. Opportunities exist to mitigate this through implementation of SuDS schemes to manage surface runoff. The impact of WwTW on water quality should be assessed in a Phase 2 Study</i>”.</p> <p>The Publication Draft HRA¹⁶⁰ explored the likely significant effects and required mitigation measures in further depth, including the potential for specific policy wording to ensure that requirements regarding water quality at Habitats sites (and underpinning SSSIs) are being met. At the appropriate assessment stage adverse effects on integrity from water issues, including water quality and quantity, were ruled out both alone and in combination. As such, a residual negligible impact would be expected.</p>
Increased demand for water and wastewater management	<p>The increased population within the Plan area would be expected to increase water demand, such as for drinking water supply and wastewater treatment. LPR Policy NB8 seeks to ensure residential development meets the water efficiency standard of 110 litres per person per day and incorporate water reuse and recycling measures wherever feasible</p> <p>The WCS indicates that Severn Trent Water and South Staffs Water do not expect water supply infrastructure to be a constraint to development within South Staffordshire. However, the WCS identified some uncertainty regarding the potential for adverse impacts in terms of wastewater collection infrastructure that may require further monitoring and investment in infrastructure upgrades, to ensure that development can be accommodated.</p> <p>Increased pressure on wastewater treatment has the potential to be a long-term and potentially permanent significant effect.</p>

¹⁵⁹ Footprint Ecology (2021) Habitats Regulations Assessment of the South Staffordshire Local Plan Review 2018-2038 (Preferred Options). Available at: <https://www.sstaffs.gov.uk/doc/182688/name/S%20Staffs%20HRA%20PO%202021.pdf/> [Accessed 16/09/22]

¹⁶⁰ Footprint Ecology (2022) Habitats Regulations Assessment of the South Staffordshire Local Plan Review 2018-2038 (Publication Plan, Regulation 19) – Publication Draft, 10th October 2022

16 Cumulative effects assessment

16.1 About this chapter

- 16.1.1 Cumulative effects assessment (CEA) is the process of identifying and evaluating the effects that arise when the total significant effects of the LPR and assessed alongside known existing underlying trends and other plan and programmes.
- 16.1.2 Cumulative effects are different from effects that occur alone. Alone, the LPR may not result in residual adverse effects for a particular topic, for example the effects of urban sprawl on landscape character, but when considered cumulatively, may result in significant effects that require mitigation or monitoring.
- 16.1.3 **Table 16.1** summarises the residual effects identified for each of the SEA topics (as set out in **Chapters 7-15**) and presents the likely cumulative effects of the LPR in consideration with other plan and programmes as well as national trends.

Table 16.1: Cumulative effects assessment of the LPR

SEA topic	Identified impacts of the LPR		Cumulative effect	
Air	Reduction in air quality	-	Nationally, measures to improve air quality are in place and continue to be prioritised by the UK government, which includes proposals to ban sales of petrol and diesel cars by 2030. Local and national policy promotes the improvement of public transport, pedestrian and cycle networks which would be likely to help reduce reliance on personal car use. Despite this, it is likely that many residents within South Staffordshire, particularly in the more rural settlements, would rely on personal cars for travel, to some extent.	-
	Increased pollutant emissions	-	Although the current trends in South Staffordshire suggest that NO ₂ concentrations are declining within the district, with two of the three AQMAs being revoked in 2022, there is likely to be an increase in traffic as a result of the housing and employment growth allocated through the LPR. Traffic and congestion are likely to increase with population growth, with implications for air quality, residents and wildlife particularly within proximity to main roads. Overall, the LPR would be expected to result in a medium-term cumulative adverse effect on air quality.	
Biodiversity, flora and fauna	Threats or pressures to Habitats sites	+/-	South Staffordshire supports a range of internationally, nationally and locally designated biodiversity sites, which will continue to benefit from legislative protection as well as agreed mitigation measures as set out within the planning policies. The integrity of the wider ecological network, including both terrestrial and aquatic habitats, is subject to cumulative incremental loss of features and in some cases loss of quality and function. Such effects are subtle and only become clear through trend data. Although the LPR aims to maintain and enhance biodiversity sites and includes various green infrastructure provisions, including biodiversity net gain, it is uncertain if the proposed development would adversely impact some biodiversity, flora and fauna features when considered together at a landscape scale. Site-based approaches to nature conservation can fail to identify landscape ecological considerations. Local strategies such as the Staffordshire Biodiversity Action Plan seek to increase the extent, resilience and quality of ecological networks; however, background trends indicate an overall picture of habitat losses and reduction in species diversity.	+/-
	Threats or pressures to nationally designated biodiversity sites	0		
	Threats or pressures to locally designated and non-statutory biodiversity or geodiversity sites	0		
	Impacts on habitats of principal importance and ancient woodland	0		
	Impacts on the ecological network	-		

SEA topic	Identified impacts of the LPR		Cumulative effect
Climatic factors	Increased carbon emissions	-	Climate change is an international issue. The proposed development within the South Staffordshire LPR and subsequent increase in population would be expected to result in an increase in GHG emissions, to some extent. This includes impacts from increased energy demand associated with the occupation of new dwellings and employment premises, transport-related emissions and the production and use of materials during construction. The LPR sets out a range of policies which focus on topics such as sustainable economic growth, construction and transport, as well as managing flood risk and enhancing green infrastructure. In particular, Policy NB6 seeks to ensure that new residential developments achieve “ <i>net zero regulated carbon emissions</i> ”. Despite these policies, without further research to better understand the precise nature of potential impacts arising from climate change at the district scale, it is uncertain whether net-zero carbon emissions will be achieved within the Plan period, as the policies would not fully mitigate carbon emissions during occupation of new development including those associated with transport, or emissions associated with existing housing stock. Overall, the LPR could potentially result in a cumulative adverse effect which may lead to secondary effects such as on flood risk, health and safety of residents and possibly the supply of water across the plan area. This issue requires careful monitoring, and the findings and recommendations of the Staffordshire Climate Change Mitigation and Adaptation Plan (AECOM, 2020) should be actioned and monitored wherever possible.
	Loss of multi-functional green infrastructure	+	It should be noted that the Future Homes Standard will come into effect in 2025 and apply to all new developments, this will be accompanied by changes to Parts L (energy) and F (ventilation) of the Building Regulations. The Future Homes Standard will seek to ensure that new homes are future-proofed with low-carbon heating systems and high levels of energy efficiency. At the time of writing, it is understood that a full technical specification for the Future Homes Standard will be consulted on in 2023, with the necessary legislation introduced in 2024, ahead of implementation in 2025.
Cultural heritage	Impact on heritage assets	0	South Staffordshire has a rich cultural heritage, with a range of designated and non-designated historic features. Development proposed within the LPR would not be expected to cause significant harm to designated heritage assets and the Plan includes a number of policies which seek to conserve and enhance the historic environment and the distinctive character.
	Alteration of the historic environment character	-	However, due to the scale of development proposed in the LPR with a large proportion in previously undeveloped locations surrounding rural settlements with historic value, cumulatively the development set out in the LPR could have the potential to alter South Staffordshire’s distinctive historic character to some extent.

SEA topic	Identified impacts of the LPR		Cumulative effect	
Human health	Limited access to healthcare/leisure facilities and services	-	<p>The health of residents within South Staffordshire is generally good.</p> <p>Many of the policies would be expected to mitigate and result in positive effects in relation to human health, for example policies which seek to improve community cohesion, promote healthy lifestyles and provide a range of open spaces and recreational facilities for new and existing residents. Various LPR policies also seek to provide a range of open spaces and improve the district's walking and cycling networks.</p> <p>However, the rural nature of the district means that many site end users will be situated further away from healthcare facilities than is recommended to support sustainable communities, with potential for restricted access to essential healthcare and likely reliance on private car use to reach the nearest facilities. This could especially present issues when considering South Staffordshire's ageing population and the lack of hospitals within the district.</p> <p>Furthermore, air and noise pollution associated with road traffic and AQMAs can have adverse implications for health. Although various LPR policies seek to minimise exposure to pollution, the development proposed may lead to a cumulative adverse effect on air quality as discussed in the 'air' section above.</p> <p>Short, medium, and potentially long-term adverse effects on human health are likely to remain within the Plan period.</p>	-
	Exposure to air/noise pollution (from AQMA/main road)	-		
	Limited access to public greenspace	+		
	Limited access to PRow or cycle network	+		
Landscape	Impacts on Cannock Chase AONB and its setting	0	<p>The spatial strategy for development in South Staffordshire to 2039, as set out in the LPR, directs the majority of new development towards higher tier settlements and existing urban areas, in line with the settlement hierarchy. The LPR seeks to direct development towards previously developed land where possible. However, to meet the identified housing requirements, a proportion of growth within the Plan is located on previously undeveloped land, equating to approximately 813ha, with potential to lead to a cumulative negative effect on landscape character and tranquillity.</p> <p>Various LPR policies aim to protect and, where appropriate, enhance the local character and distinctiveness of South Staffordshire's landscape through encouraging sensitive design and ensuring that new development proposals have regard to the findings of the published LCA and landscape sensitivity information.</p> <p>The LPR policies would be expected to minimise potential adverse impacts on the setting or special qualities of Cannock Chase AONB, in accordance with national policy as well as the AONB Design Guide and Views and Setting Guide.</p> <p>However, there are other areas within South Staffordshire identified as being of 'high' sensitivity to development, and areas with potential for development to cause 'high' or 'very high' harm to the Green Belt. In such areas, the landscape is unlikely to be able to accommodate new development without</p>	--
	Alteration of landscape character	-		
	Impacts on sensitive landscapes and the West Midlands Green Belt	--		
	Alteration of views	-		
	Increase risk of urbanisation of the countryside and coalescence	-		

SEA topic	Identified impacts of the LPR		Cumulative effect	
	Loss of tranquillity	-	significant change. Despite the LPR policies which seek to create new, high quality neighbourhoods with strong townscape character, there will be an inevitable loss of the current rural character. Whilst single, small allocations would be unlikely to significantly impact tranquillity, the overall scale of development proposed within the LPR would be expected to lead to a cumulative adverse effect on tranquillity and associated indicators such as dark skies.	
Population and material assets	Provision of housing to meet local need	++	<p>The South Staffordshire LPR would be likely to have a positive cumulative effect on the population and the economy, due to the provision of new homes and jobs to meet the varied needs of the community, including provision of affordable housing and a range of type, tenure and size of homes in line with the identified needs. However, within South Staffordshire and nationally, issues with the affordability of homes are likely to remain.</p> <p>Local and national policy promotes the improvement and integration of public transport, and LPR policies seek to improve travel choice and encourage sustainable modes of transport, including public transport, pedestrian and cycle networks. However, the LPR allocations may lead to an adverse impact on access to and provision of local services and facilities, particularly in the more rural settlements. Many residents in these areas are likely to rely on private car use for travel, and an increased population may lead to greater pressure on the capacity of key services. A cumulative adverse effect would be expected in terms of accessibility.</p> <p>Furthermore, there is potential for a cumulative adverse effect in relation to material assets, as the growth set out in the LPR would be likely to increase household waste generation over the Plan period. Although nationally recycling rates are increasing, it is uncertain if this would help to significantly decrease waste generation within the Plan area.</p>	-
	Provision of employment opportunities	++		
	Access to, and demand on, local services and facilities	-		
	Improved community cohesion	+		
	Increased household waste generation	-		
Soil	Loss of soil resources and BMV land	--	<p>Nationally, rates of soil erosion are increasing. Soil is a non-renewable resource, which performs a number of important ecosystem services and supports a diverse range of habitats.</p> <p>The LPR includes measures to reduce the quantity of soil lost to development, including directing development towards existing urban areas including previously developed land, ensuring green infrastructure and open spaces are maximised, and promoting the efficient use of land such as through ensuring appropriate housing densities. Despite these measures, a number of allocations are situated on previously undeveloped land. The LPR would be expected to result in the loss of approximately 813ha of previously undeveloped land including approximately 788ha of potential BMV land. Together, this would be expected to have a cumulative adverse effect on soil resources.</p>	--
	Impact on ecosystem services	-		

SEA topic	Identified impacts of the LPR		Cumulative effect
Water	Fluvial and surface water flood risk	0	-
	Reduction in water quality and ecosystem services	0	
	Increased demand for water and wastewater management	-	

¹⁶¹ Footprint Ecology (2022) Habitats Regulations Assessment of the South Staffordshire Local Plan Review 2018-2038 (Publication Plan, Regulation 19) – Publication Draft, 10th October 2022

17 Monitoring

17.1 Context

17.1.1 Regulation 17 of the SEA Regulations states *“The responsible authority shall monitor the significant environmental effects of the implementation of each plan or programme with the purpose of identifying unforeseen adverse effects at an early stage and being able to undertake appropriate remedial action”*.

17.1.2 The purpose of monitoring is to measure the environmental effects of the Plan as well as its success against its objectives. However, monitoring can place a heavy burden on financial and human resources, and it may therefore be practical to focus on monitoring residual adverse effects and to build on existing monitoring systems.

17.1.3 Monitoring the impacts of the Local Plan should seek to answer:

- Was the likelihood of sustainability impacts identified in the SA process accurate?
- Is the Local Plan successful in achieving its desired sustainability objectives?
- Are mitigation measures performing as expected?
- Are there any unforeseen adverse impacts of the Local Plan, and are these within acceptable limits or is remedial action required?

17.2 Monitoring proposals

17.2.1 Monitoring proposals are set out in **Table 17.1**.

Table 17.1: Proposals for monitoring adverse sustainability impacts of the LPR

Theme/ SEA Regulations	Indicator	Scale and frequency	Target
Air	Concentration of NO ₂ and PM ₁₀	Annually, Plan area wide	Decrease
	Traffic flows on main roads	Bi-annually, Plan area wide	Decrease
	Rates of public transport uptake	Annually, Plan area wide	Increase
Biodiversity, flora and fauna	Percentage of SSSIs in favourable condition	Annually, Plan area wide	Increase
	Number of Planning Approvals granted contrary to the advice of Natural England or Staffordshire Wildlife Trust	Annually, Plan area wide	Zero
	Percentage loss of the ecological network	Annually, Plan area wide	Zero
Climatic factors	CO ₂ emissions per capita	Annually, Plan area wide	Decrease
	Renewable energy generation	Annually, Plan area wide	Increase
Cultural heritage	Number of Conservation Area appraisals	Annually, Plan area wide	Increase
	Number of heritage assets identified as 'heritage at risk'	Annually, Plan area wide	Decrease
Human health	Percentage of physically active adults	Bi-annually, Plan area wide	Increase
	Number of GP Surgeries	Annually, Plan area wide	Increase
Landscape	Quantity of development in the open countryside	Annually, Plan area wide	Zero
	Change in tranquillity in the open countryside	Annually, Plan area wide	Zero
Population and material assets	Number of affordable housing completions	Annually, Plan area wide	Increase
	Percentage of economically active residents	Annually, Plan area wide	Increase

Theme/ SEA Regulations	Indicator	Scale and frequency	Target
	LSOAs in South Staffordshire within the 10% most deprived in Great Britain	Every 3 to 4 years, Plan area wide	Decrease
	Quantity of household waste generation	Annually, Plan area wide	Decrease
Soil	Number of dwellings built on PDL	Annually, Plan area wide	Increase
	Number of dwellings built on BMV land (Grades 1, 2 or 3a ALC)	Annually, Plan area wide	Decrease
Water quality/ flood	Number of planning permissions granted contrary to EA advice	Annually, Plan area wide	Zero
	Quality of watercourses	Annually, Plan area wide	Increase
	Number of overflow events of untreated sewage discharges into rivers	Annually, Plan area wide	Zero
	Water efficiency in new homes	Annually, Plan area wide	Increase

18 How the SA has influenced the Plan

18.1 The role of the SA

- 18.1.1 The SA has been an influential tool throughout the plan making process to date. It works on an iterative basis. The plan makers identify various options at different stages of the plan making process which are subsequently appraised through the SA process using the methodology in **Chapter 4**.
- 18.1.2 As stated in the Publication Version of the LPR, the SA findings have been used to help refine policy choices and site options through to the final proposals set out in the Local Plan.
- 18.1.3 The process of appraisal is sequential in nature: an assessment of impacts is made, the mitigation hierarchy is applied and the assessment of effects is revisited, leading to the identification of residual effects. The mitigation hierarchy is an important element of the assessment process. It considers firstly if the identified adverse effect can be avoided and if not, if it can be adequately mitigated to reduce the effect.
- 18.1.4 SA is necessarily a high-level assessment process, often using secondary data at a scale which is plan-based to make assessments about smaller-scale sites. This can introduce uncertainty to the process (see assumptions and limitations in Appendix D). The application of the precautionary principle means that when doubt prevails, a worst-case scenario is identified.
- 18.1.5 The general picture of how development takes place in the UK is either through what is loosely known as (1) an appeal-led system (unplanned development for which permission is secured on appeal to the Planning Inspectorate) or (2) a plan-led system. Paragraph 15 of the NPPF is clear that “*the planning system should be genuinely plan-led*”.
- 18.1.6 The likely evolution of the baseline without the Plan (see **Table 3.1**) shows that there are already a number of important trends, some of which are negative in nature. These include matters such as air quality, GHG emissions and flood risk; events associated with a changing climate. The table suggests that these are likely to continue without the Plan, which, for the purposes of the assessment, is the so-called ‘appeal-led’ system.

18.2 Recommendations

- 18.2.1 Recommendations made throughout the SA process have been fed back to SSDC to assist their decision making as the LPR has been developed. This includes a wide range of recommendations set out within Chapter 7 of the Regulation 18 (III) SA Report¹⁶².
- 18.2.2 The recommendations set out measures to mitigate some of the potential adverse effects that had been identified during the SA process. In many cases, recommendations or suggested enhancements to policies within the LPR were incorporated into the final versions of the policies.
- 18.2.3 Most notably, the outcomes of the SA in terms of reasonable alternative site options have been considered in the Council's site assessment processes, ensuring that the sustainability outcomes for individual sites have been considered prior to allocations being made.

¹⁶² Lepus Consulting (2021) Sustainability Appraisal of the South Staffordshire Local Plan Review: Preferred Options Plan, Regulation 18 (III) SA Report. Available at: <https://www.sstaffs.gov.uk/doc/182657/name/Sustainability%20Appraisal%20PO%202021.pdf/> [Accessed 23/09/22]

19 Conclusions

19.1 Residual effects following mitigation

- 19.1.1 The SA has assessed the site allocations and policies proposed in the LPR using the methodology in **Chapter 4** and assumptions as set out in **Appendix D**. A range of sustainability effects have been identified, which are highlighted throughout the policy and site assessments in **Appendices F, G and I**, with residual positive, negligible and negative effects summarised and discussed in **Chapters 7 to 15**.
- 19.1.2 Proposals in the LPR vary in terms of their sustainability performance with likely positive effects expected on some SA Objectives and adverse effects on others. The SA has identified likely sustainability effects of LPR proposals alone and in-combination.
- 19.1.3 The LPR is anticipated to result in a range of positive effects on sustainability, which are summarised in **Table 19.1**. This includes positive effects associated with the provision of homes and jobs to meet the varying needs of the population, as well as provision of and accessibility to green infrastructure, public greenspace and active travel infrastructure. The Plan is likely to lead to positive effects overall with regard to health and wellbeing, and promoting cohesive and sustainable communities.
- 19.1.4 The mitigation proposals presented in the LPR provide positive planning mechanisms for delivering sustainable development where the Plan is able to reasonably address the issue. It is recognised that the Plan cannot fully address the sustainability effects of national and international trends, such as increased frequency of storm events associated with climate change.
- 19.1.5 The identified residual adverse effects (see **Table 19.2**) are generally minor, but some are associated with greater levels of uncertainty. In some cases, for example residual effects associated with household waste, landscape and biodiversity, these have been derived through the application of the precautionary principle owing to this uncertainty and in some cases lack of information to inform the assessments.
- 19.1.6 Some identified effects are greater in magnitude, for example residual adverse effects associated with air quality and climate change. These require careful attention outside of and beyond the LPR; notwithstanding such uncertainties, these aspects are included in the recommendations for monitoring. Whilst the LPR includes positive mitigation measures, the Plan alone cannot address these matters in their entirety as these are effects that are predicted to happen with or without the Plan. The Plan includes measures to reduce these effects, however, when considered cumulatively, a residual adverse effect would still be likely to occur.

Table 19.1: Likely residual positive sustainability effects of the LPR

Summary of residual positive effects	
1	<p>Multi-functional green infrastructure network</p> <p>The LPR promotes the conservation and enhancement of multi-functional green infrastructure across the district, and encourages development proposals to seek opportunities to incorporate links and increase connectivity of the wider green network</p> <p>Although the proposed development within the LPR would be expected to result in the loss of greenfield land and associated green infrastructure to some extent, policies within the LPR would be expected to mitigate this loss of multi-functional green infrastructure, resulting in a positive effect on provision of green infrastructure in the longer term.</p>
	<p>Access to public greenspace</p> <p>Various LPR policies seek to provide a range of open spaces, sports facilities and recreational spaces for site end users, which would be expected to help facilitate healthy and active lifestyles and supplement the district's existing recreational resource. Notably, Policy HC17 sets out requirements for all development proposals to provide multi-functional open space, or financial contributions towards off-site open space provision, according to the size of the development.</p>
3	<p>Access to the PRoW and cycle networks</p> <p>There is a relatively good coverage of existing PRoWs and cycle paths within the district. Various LPR policies seek to create permeable neighbourhoods and promote cycling and walking which would be likely to improve the coverage of, and accessibility to, the pedestrian and cycle networks across South Staffordshire. This would be expected to encourage residents to participate in physical exercise and active travel, with benefits to health and wellbeing.</p>
4	<p>Provision of housing to meet local need</p> <p>In order to meet the identified housing need, the LPR proposes to deliver 9,089 new dwellings within the Plan period. Policies set out in the Plan include various requirements to ensure the provision of an appropriate mix of housing types and tenures that will address the needs of different groups including those with specialist needs, first time home buyers, and the Gypsy and Traveller community.</p>
5	<p>Provision of employment opportunities</p> <p>The Plan seeks to deliver 99ha of employment land, meeting the need identified in the latest EDNA. Various LPR policies would also be expected to improve access to employment opportunities, including through provision of sustainable transport options and by aiming to locate employment-led development in areas with good accessibility with respect to the strategic road network.</p>
6	<p>Community cohesion</p> <p>The LPR policies set out SSDC's support for improved community cohesion, including through seeking to ensure that the diverse accommodation needs of the population can be met, protecting community services and facilities, and by encouraging development proposals to incorporate careful design which delivers a high quality public realm and considered opportunities to co-locate new development with community facilities and open spaces.</p>

Table 19.2: Likely residual adverse sustainability effects of the LPR

Summary of residual adverse effects	
	<p>Reduction in air quality and increased pollutant emissions</p> <p>Although various LPR policies seek to encourage sustainable transport modes and reduce air pollution, the introduction of 9,089 dwellings and 99ha of employment floorspace would be expected to increase vehicle emissions in the Plan area and result in an overall reduction in air quality.</p>
1	<p>The policies would be expected to prevent unacceptable impacts on human health associated with air pollution but may lead to a cumulative adverse effect on air quality as a whole, which the policies in the Plan in itself cannot fully mitigate as it would require other transport interventions, for example.</p> <p>Over time, this adverse impact is likely to be reduced resulting from implementation of sustainable transport strategies, phasing out of petrol- and diesel-powered cars, and other advances in technology.</p>
	<p>Fragmentation of the ecological network</p> <p>The LPR would be expected to result in the loss of a significant amount of previously undeveloped land, including soil resources, habitats and potentially ecological links between biodiversity assets.</p>
2	<p>Fragmentation of the ecological network would be expected to be a long-term significant adverse effect. It may be temporary if biodiversity net gain and landscape scale ecological enhancements are effectively implemented through the adopted plan which would potentially deliver a significant beneficial effect in the long term.</p>
	<p>Increased greenhouse gas emissions</p> <p>Although the LPR policies, notably NB6, would positively contribute towards reducing emissions particularly in terms of building design and construction, the plan would not be expected to fully mitigate the impacts associated with the occupation of development (including those associated with transport, as discussed above), or in terms of emissions associated with the existing housing stock.</p>
3	
	<p>Alteration of historic environment and landscape character</p> <p>Various LPR policies seek to ensure that development proposals maintain and improve the district's intrinsic rural character and distinctiveness and have regard to the findings of the published LCA and HLC. However, due to the scale of development proposed with a large proportion in previously undeveloped locations surrounding rural settlements with historic value, cumulatively the development set out in the LPR could have the potential to alter South Staffordshire's distinctive historic character to some extent.</p>
4	
	<p>Limited access to healthcare / leisure facilities and services</p> <p>The majority of site allocations are located outside of the sustainable target distance to an NHS hospital and GP surgery. LPR policies, such as Policies HC14 and EC12, would be likely to help prevent the loss of existing healthcare facilities and improve sustainable access to facilities for some residents; however, the policies would not be expected to fully mitigate the restricted access to healthcare services for sites in more rural settlements in South Staffordshire.</p>
5	
	<p>Impacts on sensitive landscapes and the West Midlands Green Belt</p> <p>Various LPR policies aim to maintain and enhance South Staffordshire's distinctive landscapes and ensure that development design responds to its surroundings, having regard to the findings of the latest Landscape Sensitivity Study, and providing protection for the retained Green Belt. However, it is unlikely that these impacts could be fully mitigated particularly for allocated sites in areas identified as being of 'high' sensitivity according to the Sensitivity Study or 'very high' / 'high' harm to the Green Belt according to the Green Belt Study, where the landscape is likely to be unable to accommodate new development without significant change.</p>
6	
	<p>Alteration of views</p> <p>Whilst the LPR policies serve to provide some proportionate protection of visual amenity and views and may help to mitigate some of the adverse impacts in this regard, it is likely a minor residual impact will</p>
7	

	Summary of residual adverse effects
	<p>remain overall due to the large proportion of development in the Plan proposed on previously undeveloped sites. There is anticipated to be a cumulative adverse residual impact in relation to alteration of views for a number of the sites proposed in the LPR.</p>
8	<p>Urbanisation of the countryside and coalescence</p> <p>The need to provide housing and employment has led to the proposed allocation of development on previously undeveloped greenfield sites at a number of locations within South Staffordshire. Various policies in the LPR seek to minimise impacts on the countryside and maintain separation between settlements through protection of the Green Belt and open countryside. However, due to the rural context in which much of the new development is situated, the LPR policies would not be expected to fully mitigate these impacts and a residual adverse effect is anticipated. This includes potential for reduced separation between the settlements / neighbourhoods of: Codsall and Pendeford; Wood Hayes and Ashmore; Coven Heath and Cross Green; and Four Ashes and Gailey.</p>
9	<p>Loss of tranquillity</p> <p>The proposed development of 9,089 new dwellings and 99ha of new employment land across the district, with a number of development sites located within more rural areas, would be likely to result in a loss of tranquillity of the rural landscape as a consequence of increases in noise and light pollution.</p>
10	<p>Access to, and demand on, local services and facilities</p> <p>Whilst the LPR policies seek to maintain and enhance local services and facilities as far as possible, these policies would not be expected to fully mitigate the restricted access to local facilities for some areas, particularly those in lower-tier settlements.</p>
11	<p>Increased household waste generation</p> <p>It is difficult for the LPR to specifically reduce waste generation within the Plan area. Although national trend data indicates a general decrease in household waste generation over time, the introduction of 9,089 new households would be expected to increase waste production to some extent.</p>
12	<p>Loss of soil resources and BMV land</p> <p>The proposed allocations would cumulatively result in the loss of up to approximately 813ha of previously undeveloped land¹⁶³, approximately 788ha of which could include BMV land. The proposed development within the LPR would be expected to reduce the ability of the local soil biome to effectively provide ecosystem services. The loss of permeable soils could potentially increase the risk of flooding and result in a loss of biodiversity across the Plan area. Loss of soil can also result in an increase in soil erosion and have subsequent impacts on air quality and agricultural yield.</p>
13	<p>Increased demand for water and wastewater management</p> <p>The increased population within the Plan area would be expected to increase water demand, such as for drinking water supply and wastewater treatment. The WCS identified some uncertainty regarding the potential for adverse impacts in terms of wastewater collection infrastructure that may require further monitoring and investment in infrastructure upgrades, to ensure that development can be accommodated throughout the Plan period.</p>

¹⁶³ Please note this figure is based on gross site areas and so does not take into account net developable areas excluding new open space / green infrastructure provision or sites which are already partially developed.

19.2 Consultation and next steps

- 19.2.1 This report represents the latest stage of the SA process. As per Regulation 13 of 'The Environmental Assessment of Plans and Programmes Regulations 2004'¹⁶⁴, this Regulation 19 SA Report will be published alongside the Publication Version of the Plan. Consultation findings will be used to inform subsequent stages of the SA process.
- 19.2.2 A six-week period of consultation under the Town and Country Planning Act will be undertaken by SSDC to offer individuals, businesses and other organisations an opportunity to submit representations regarding the South Staffordshire LPR.
- 19.2.3 Following this round of consultation, all comments will be analysed by the plan makers as part of the ongoing plan making process. Further stages of SA will be prepared if and when necessary.

¹⁶⁴ The Environmental Assessment of Plans and Programmes Regulations 2004. Regulation 13: Consultation procedures. Available at: <https://www.legislation.gov.uk/uksi/2004/1633/regulation/13/made> [Accessed 01/08/22]

Glossary

Term	Definition
Accessibility	This is the ability for people to travel around an area and reach facilities or locations. This includes the elderly, young, disabled or those carrying luggage.
Adoption	The official confirmation of a Development Plan or Local Development Document as having statutory status by a Local Planning Authority.
Agricultural Land Classification (ALC)	The Department for Environment, Food and Rural Affairs (DEFRA's) system of classifying agricultural land quality. Soil is graded from best to worst, numbered 1 to 5, with Grade 3 divided into two sub-grades (3a and 3b).
Air Quality Management Area (AQMA)	An area which is declared by a Local Authority where it is unlikely that Air Quality Objectives will be achieved.
Amenity	Positive elements that contribute to the character and sense of place of a location.
Ancient Woodland	Woodland that has existed in a consistent state since 1600 or earlier in England, Wales and Northern Ireland (1750 in Scotland).
Area Action Plan	A type of Development Plan Document which focuses on a specific location.
Area of Outstanding Natural Beauty (AONB)	Sites in England, Wales and Northern Ireland designated to conserve and enhance the natural beauty of the area which comprises the area's distinctive landscape character, biodiversity, geodiversity, historic and cultural environment.
Back-land Development	Development which is 'landlocked' behind existing buildings, including gardens or private open space.
Baseline Conditions	The conditions that would pertain in the absence of the proposed project at the time that the project would be constructed/operated/decommissioned.
Best and Most Versatile Land (BMV)	Land in Grades 1, 2 and 3a of the Agricultural Land Classification.
Biodiversity	The variability among living organisms from all sources, including terrestrial, marine and other aquatic ecosystems, and the ecological complexes of which they are part. It includes diversity within and between species, and between ecosystems.
Biodiversity Action Plan (BAP)	A plan which recognises, highlights and provides a framework for protecting individual species and habitats at the national, regional and local level.
Biodiversity Opportunity Area (BOA)	Areas where conservation action, such as habitat creation, restoration or expansion, is likely to have the greatest benefit for biodiversity.
Buffer Zone	An area or zone that helps to protect a habitat from damage, disturbance or pollution.
Carbon Sink	A natural or artificial reservoir viewed in terms of its ability to absorb carbon-containing compounds, such as carbon dioxide.
Change of Use	A change in the way the building or land is currently managed or used. Planning permission is usually required in order to change from one use to another.
Character	Relating to the appurtenance of a location in terms of its landscape, layout of streets or open spaces, or historic environment.
Climate Change	A change in the climate of a region over time due to natural forces or human activity. In the context of the UN Framework Convention on Climate Change, it is the change in climate caused by higher levels of greenhouse gases in the atmosphere due to human activities as well as natural climate changes.
Climate Change Adaptation	Changes to natural or human systems in response to actual or estimated climatic factors or their effects, such as increased rainfall and temperatures.

Term	Definition
Climate Change Mitigation	Actions used to reduce the impact of human activity on the climate, such as reducing greenhouse gas emissions.
Coalescence	The merging of separate towns or villages due to development.
Community Infrastructure Levy	A levy allowing local authorities to raise funds from owners or developers of land undertaking new building projects in their area.
Connectivity	Term to express how a landscape is configured and how it allows species to move through its different elements. A high degree of connectivity is generally linked to low fragmentation.
Conservation Area	Areas of special architectural or historic interest, the character of which should be preserved. These are designated by the local planning authority.
Consistency	The degree to which an attribute is recognisable and represented throughout the landscape.
Contaminated Land	Land that has been polluted and is therefore unsafe for development unless the contamination is removed.
Corridor	A strip of land of a particular type that differs from the adjacent land on both sides (corridors have several important functions, including conduit, barrier and habitat).
Country Park	Country Parks are statutorily declared and managed by local authorities in England and Wales under the Countryside Act. They are primarily intended for recreation and leisure opportunities close to population centres and do not necessarily have any nature conservation importance.
Cumulative Impact	Impacts caused either by a number of separate developments in the same area or continuous activity over time that may have an increased impact on the local environment.
Cycle Network	A network located both on and off roads to facilitate safer travel by bicycle.
Density	In terms of residential development, the number of dwellings (or rooms) per hectare.
Design Statement	Made at the pre-planning application stage by developers to indicate the design principles upon which a proposal is to be based.
Detractor	A feature or element which can generally be agreed upon as reducing the value or quality ascribed to a view or landscape.
Development Plan Document (DPD)	Development Plan Documents are prepared by local planning authorities and outline the key development goals of the local development framework.
Ecological Network	Linkages between biodiversity features and habitats.
Ecosystem	A community of living organisms (biotic components), including plants, animals and microorganisms, and their physical environment (abiotic components) that interact as a functional unit.
Ecosystem Services	Benefits that people obtain from ecosystems or their direct and indirect contributions to human well-being.
Emissions	In the context of the atmosphere, gases or particles released into the air that can contribute to global warming or poor air quality.
Energy Efficiency	Actions to save fuels, for example better building design, changing production processes, developing better transport policies, using better road vehicles and improving insulation and double glazing in homes.
Environmental Report (ER)	A document prepared as part of the Strategic Environmental Assessment process that presents findings, identifies options for mitigating adverse effects and opportunities for enhancing or improving the overall sustainability of the environment assessed.
Eutrophic	A water body with high nutrient levels, often a result of intensive agricultural production. Such water bodies are characterised by low dissolved oxygen levels, excessive algal blooms and a general poor water quality.
Flood Plain	Where water flows in times of flood, or would flow but for the presence of flood defences.
Fragility	The degree of sensitivity of habitats, communities and species to environmental change. It requires a consideration of intrinsic and extrinsic factors.

Term	Definition
Fragmentation	The breaking up of a habitat or ecosystem into smaller parcels with a consequent impairment of functioning.
Geodiversity	The range of rocks, minerals, fossils, soils and landforms.
Green Belt	An area of land, largely rural in character, which is adjacent to the main urban areas and which is protected from development by permanent restrictions on building.
Green Infrastructure (GI)	A strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services.
Green Network	The linking together of natural, semi-natural and man-made open spaces to create an interconnected network. This may include (but is not limited to) designated biodiversity sites, Local Green Spaces, waterways, and public greenspaces.
Green Space	A patch of vegetated land within the urban fabric for predominantly recreational use.
Greenfield	Land on which no development has previously taken place unless the previous development was for agriculture or forestry purpose or, the remains of any structure or activity have blended into the landscape.
Greenhouse Gas (GHG)	A gas in an atmosphere that absorbs and emits radiation within the thermal infrared range, usually water vapour, carbon dioxide, methane, nitrous oxide, ozone chlorophluorocarbons and hydrophluorocarbons.
Groundwater	Water which is below the surface of the ground and in direct contact with the ground or subsoil.
Habitat Regulations Assessment (HRA)	A Habitats Regulations Assessment (HRA) refers to the several distinct stages of Assessment which must be undertaken in accordance with the Conservation of Habitats and Species Regulations 2017 (as amended) and the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) to determine if a plan or project may affect the protected features of a habitats site before deciding whether to undertake, permit or authorise it.
Heritage Asset	A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. Heritage asset includes designated heritage assets and assets identified by the local planning authority (including local listing).
Historic Environment	All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and landscaped and planted or managed flora.
Imperviousness	Term referred to sealed soils that are characterised by artificial impenetrable surfaces. Imperviousness eliminates essential soil functions such as rainwater infiltration, natural groundwater recharge, food production, carbon storage or biodiversity shelter.
Improved Grassland	Grassland communities that have a reduced floristic diversity due to the application of fertilisers or other added nutrients.
Infrastructure	Basic services necessary for development, such as, roads, electricity, sewerage, water, education and healthcare facilities.
Land Use	Describes the social and economic purposes for which land is managed.
Landscape	The traits, patterns and structure of a specific geographic area, including its biological composition, its physical environment and its anthropogenic or social patterns. An area where interacting ecosystems are grouped and repeated in a similar form.
Landscape Capacity	A combination of landscape sensitivity and landscape value.
Landscape Character	The recognisable and consistent pattern of features in a certain landscape, distinguishing one landscape from another, giving a locality its sense of place.
Landscape Sensitivity	The sensitivity of the landscape as a whole, in terms of its overall character, its quality and condition, the aesthetic aspects of its character and also the sensitivity of individual elements contributing to the landscape.

Term	Definition
Landscape Character Sensitivity	A combination of landscape character sensitivity and landscape visual sensitivity.
Landscape Value	Calculated through the combination of importance, rarity and potential for substitution of landscape features.
Landscape Visual Sensitivity	The general visibility and potential scope to mitigate the visual effects of any change that might take place.
Linear Tree Cover Pattern	Areas where the tree cover is characterised by lines of trees or narrow bands of woodland normally associated with streams, ditches or other linear water features.
Listed Building	A protected structure recorded on the Statutory List of Buildings of Special Architectural or Historic Interest. Graded I (highest quality), II* or II, which are listed in a national register.
Local Development Framework	The Local Development Framework (LDF) is a non-statutory term used to describe a folder of documents, which includes all the local planning authority's local development documents.
Local Development Scheme	The local planning authority's scheduled plan for the preparation of Local Development Documents.
Local Nature Reserve (LNR)	Local Nature Reserves (LNRs) are a statutory designation made under Section 21 of the National Parks and Access to the Countryside Act 1949 by principal local authorities. Parish and Town Councils can also declare LNRs, but they must have the powers to do so delegated to them by a principal local authority.
Local Plan	Local plans are prepared by the Local Planning Authority (LPA), usually the Council or the national park authority for the area. The plan for the future development of the local area, drawn up by the local planning authority in consultation with the community. In law this is described as the development plan documents adopted under the Planning and Compulsory Purchase Act 2004. Current core strategies or other planning policies, which under the regulations would be considered to be development plan documents, form part of the Local Plan. The term includes old policies which have been saved under the 2004 Act.
Local Planning Authority (LPA)	The body responsible for carrying out statutory planning functions.
Local Wildlife Site (LWS)	Sites which have a local designation for their nature conservation value.
Marine Conservation Zone (MCZ)	Marine Conservation Zones are established to protect nationally important marine wildlife, habitats, geology and geomorphology. They are established under the Marine and Coastal Access Act (2009).
Mineral Safeguarding Area (MSA)	Areas designated by Minerals Planning Authorities which cover known deposits of minerals which are desired to be kept safeguarded from unnecessary sterilisation by non-mineral development.
Mitigation	Measures taken to reduce adverse impacts, e.g. the provision of suitable planting to screen a development.
National Character Area (NCA)	An area of England characterised by distinctive natural features, based on a combination of landscape, biodiversity, geodiversity and economic activity. Refers to the broad landscape character areas described by the former Countryside Agency's Character Map of England.
National Nature Reserve (NNR)	A National Nature Reserve (NNR) is the land declared under the National Parks and Access to the Countryside Act 1949 or Wildlife and Countryside Act (1981) as amended. These are protected and managed areas which are nationally designated as key places for wildlife and natural features.
National Park	Areas of relatively undeveloped and scenic landscape that are designated under the National Parks and Access to the Countryside Act (2016).

Term	Definition
National Planning Policy Statement (NPPF)	Updated in June 2019, this document sets out the government's planning policy guidance on various topics that can constitute a material consideration in determining planning applications.
National Trail	Long distance routes for walking, cycling and horse riding.
Natural Capital	The extension of the economic notion of capital (manufactured means of production) to environmental goods and services. Natural capital is the stock of natural ecosystems that yields a flow of valuable ecosystem goods or services into the future.
Neighbourhood Plan	A plan prepared by a Parish Council or Neighbourhood Forum for a particular neighbourhood area (made under the Planning and Compulsory Purchase Act 2004).
Open Space	An area of undeveloped land or water that may offer important opportunities for sport and recreation and can act as a visual amenity.
Plan area	The geographic area covered by the plan. This generally covers local government jurisdictional boundaries.
Planning Practice Guidance (PPG)	The National Planning Practice Guidance adds further context to NPPF, and it is intended that the two documents should be read together.
Pollution	The introduction of contaminants into the natural environment that cause adverse change.
Precautionary Principle	Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.
Previously Developed Land (PDL)	Land which is, or has been, occupied by a permanent (non-agricultural) structure and associated infrastructure, including the area of land attached to a structure as well as the structure itself.
Public Greenspace	Areas of undeveloped landscape within a settlement, that are partially or wholly covered with grass, trees, shrubs or other vegetation.
Public Rights of Way (PRoW)	Paths within England and Wales on which the public have a legally protected right to pass and re-pass.
Ramsar Sites	Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. Originally intended to protect sites of importance especially as waterfowl habitat, the Convention has broadened its scope over the years to cover all aspects of wetland conservation and wise use, recognising wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities.
Receptor	Any ecological or other defined feature (e.g. human beings) that is sensitive to, or has the potential to be affected by, an impact.
Registered Parks and Gardens	A national designation by Historic England of a park or garden of special historic interest. Graded I (highest quality), II* or II, which are listed in a national register.
Ribbon Development	Development which extends along one or both sides of a road but is not extended in depth.
Ridge and Furrow	Fields which still exhibit remnant ridges and furrows created by a Saxon or Medieval form of ploughing in shared open fields.
Rural Exception Site	Small sites for affordable residential development in perpetuity, where sites would not normally be allocated for housing. The sites seeks to address the housing needs of the local community.
Scheduled Monument (SM)	Archaeological remains of national importance which are legally protected by the Ancient Monuments and Archaeological Areas Act 1979 and listed on a schedule.
Secondary impacts	Impacts that could potentially occur indirectly following the implementation of the Local Plan.
Sequential Test	A planning principle that seeks to identify, allocate or develop certain types or locations of land before others.
Setting	The place in which something is set, particularly in terms of the surroundings of a Listed Building.

Term	Definition
Site of Special Scientific Interest (SSSI)	A conservation designation denoting a protected area of land in the UK. Sites can be protected for their biological/ecological interest (Biological SSSIs) and/or their geological interest (Geological SSSIs).
Source Protection Zone (SPZ)	The Environment Agency identifies Source Protection Zones to protect groundwater (especially public water supply) from developments that may damage its quality.
Special Area of Conservation (SAC)	SACs are designated under the EC Habitats Directive. SACs are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive.
Special Protected Area (SPA)	SPAs are classified by the UK Government under the EC Birds Directive. SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.
Stakeholder or Interested Party	Any person, group or business that has an interest or will potentially be affected by a particular activity, plan or project.
Statutory Body	A government-appointed body set up to give advice and be consulted for comment upon development plans and planning applications affecting matters of public interest. This includes Historic England, Environment Agency and Natural England.
Strategic Environmental Assessment (SEA)	A process that is a requirement under certain plans and programmes under the SEA Directive and associated Environmental Assessment of Plans and Programmes Regulations 2004. The Directive seeks to ensure that environmental considerations are taken into account alongside economic and social considerations in the development of a plan / programme.
Submission	When a Development Plan Document, such as a Local Plan, is submitted to the Secretary of State for independent examination.
Supplementary Planning Document (SPD)	This document defines the standards that local authorities seek to achieve when involving and consulting local communities in the preparation of Local Development Documents and development control decisions. These often add further detail to policies within the Local Plan.
Surface Water (Pluvial) Flooding	Flooding caused by rainfall which occurs due to water ponding on, or flowing over, the surface before it reaches a drain or watercourse
Sustainability Appraisal (SA)	A systematic process required by the Planning and Compulsory Purchase Act 2004 and incorporating the requirements of the SEA Directive, aimed at appraising the social, environmental and economic effects of plan strategies and policies and ensuring that they accord with the objectives of sustainable development.
Sustainable Development	One of the core principles underpinning planning. It can be described as development which meets the needs of the present without compromising the ability of future generations to meet their own needs.
Sustainable Drainage Systems (SuDS)	A sequence of management practices and control measures designed to mimic natural drainage processes by allowing rainfall to infiltrate, and by attenuating and conveying surface water runoff slowly at peak times.
Synergistic impacts	When two separate impacts combine to form a third impact. These may be greater than the sum of the individual impacts.
Tranquillity	Remote from the visual or audible intrusion of development and/or traffic and unspoilt by urban surroundings.
Unimproved Grassland	Grassland with plant communities that has not been affected by the application of fertilisers or other significant additions of nutrients.
Urban Fringe	The area located on the periphery of a city. It represents the transition zone between the built-up area and the countryside.
Urban Heat Island Effect	An urban area being significantly warmer than the surrounding rural areas caused by human activity.
Urban Sprawl	The unplanned and uncontrolled growth of urban areas into the surrounding countryside.

Term	Definition
Veteran Tree	A tree that has reached a great age and size compared to others of the same species, or that shows characteristic veteran features such as hollowing and fungal rot, cracks and cavities in the trunk, or retraction of the canopy.
Water Catchments	An area that serves a watercourse with rainwater. Every part of land where the rainfall drains to a single watercourse is in the same catchment.
Wetland	An area of land with plant communities associated with seasonally or permanently waterlogged soils. Indicators species may include rush or common reed (Phragmites).
Windfall Site	Sites that have unexpectedly become available for development and have therefore not be included within the Local Plan.
World Heritage Site (WHS)	A place that is listed by the United Nations Educational, Scientific and Cultural Organization (UNESCO) as of special cultural or physical significance.

Habitat Regulations Assessments

Sustainability Appraisals

Strategic Environmental Assessments

Landscape Character Assessments

Landscape and Visual Impact Assessments

Green Belt Reviews

Expert Witness

Ecological Impact Assessments

Habitat and Ecology Surveys



© Lepus Consulting Ltd

Eagle Tower

Montpellier Drive

Cheltenham

GL50 1TA

T: 01242 525222

E: enquiries@lepusconsulting.com

www.lepusconsulting.com

CHELTENHAM



Lepus Consulting
Eagle Tower,
Montpellier Drive,
Cheltenham
Gloucestershire GL50 1TA

t: 01242 525222
w: www.lepusconsulting.com
e: enquiries@lepusconsulting.com