

Sustainability Appraisal of the Wolverhampton Local Plan

Regulation 19 SA Report Volume 2 of 3: Regulation 19 SA Report

October 2024



LEPUS CONSULTING
LANDSCAPE, ECOLOGY, PLANNING & URBAN SUSTAINABILITY

Sustainability Appraisal of the Wolverhampton Local Plan 2024–2042

Including:
Strategic Environmental Assessment,
Health Impact Assessment and
Equality Impact Assessment

Volume 2 of 3: Regulation 19 SA Report

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Acronyms & abbreviations

A&E	Accident and Emergency
AAP	Area Action Plan
AHHLV	Areas of High Historic Landscape Value
AHHTV	Areas of High Historic Townscape Value
ALC	Agricultural Land Classification
AONB	Area of Outstanding Natural Beauty
APA	Archaeological Priority Area
AQA	Air Quality Assessment
AQMA	Air Quality Management Area
BAP	Biodiversity Action Plan
BBC	Birmingham and the Black Country
BCCS	Black Country Core Strategy
BCP	Black Country Plan
BI	Blue Infrastructure
BMV	Best and Most Versatile
BNG	Biodiversity Net Gain
BOA	Biodiversity Opportunity Area
BREEAM	Building Research Establishment Environmental Assessment Method
CAMS	Catchment Area Management Strategies
CEA	Cumulative Effects Assessment
CO₂	Carbon Dioxide
CWC	City of Wolverhampton Council
DBEIS	Department for Business, Energy and Industrial Strategy
DEFRA	Department for Environment, Food and Rural Affairs
DESNZ	Department for Energy Security and Net Zero
DfT	Department for Transport
DLHHV	Designed Landscapes of High Historic Value
DLUHC	Department for Levelling Up, Housing and Communities
EDNA	Economic Development Needs Assessment
EU	European Union
FEMA	Functional Economic Market Area
FTTP	Fibre to the Premises
GBHMA	Greater Birmingham Housing Market Area
GHG	Greenhouse Gas
GI	Green Infrastructure
GIS	Geographic Information Systems
GP	General Practitioner
GTAA	Gypsy and Traveller Accommodation Assessment
HER	Historic Environment Record
HGV	Heavy Goods Vehicle
HIA	Health Impact Assessment
HLC	Historic Landscape Characterisation
HMA	Housing Market Area
HMO	House in Multiple Occupation
HRA	Habitats Regulations Assessment

HUDU	Healthy Urban Development Unit
IMD	Indices of Multiple Deprivation
IRZ	Impact Risk Zone
KRN	Key Route Network
LDS	Local Development Scheme
LEV	Low Emission Vehicle
LNR	Local Nature Reserve
LNRS	Local Nature Recovery Strategy
LPA	Local Planning Authority
LSOA	Lower Super Output Area
LVA	Landscape and Visual Appraisal
LVIA	Landscape and Visual Impact Assessment
MHCLG	Ministry of Housing, Communities and Local Government
NHS	National Health Service
NNR	National Nature Reserve
NO₂	Nitrogen Dioxide
NPPF	National Planning Policy Framework
NVQ	National Vocational Qualification
PINS	Planning Inspectorate
PPG	Planning Practice Guidance
PPP	Policies, Plans and Programmes
PRoW	Public Rights of Way
RBMP	River Basin Management Plan
RPG	Registered Parks and Gardens
RTPI	Royal Town Planning Institute
SA	Sustainability Appraisal
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SFRA	Strategic Flood Risk Assessment
SHLAA	Strategic Housing Land Availability Assessment
SM	Scheduled Monument
SPA	Special Protection Area
SPZ	Source Protection Zone
SSSI	Sites of Special Scientific Interest
SuDS	Sustainable Drainage System
TAG	Transport Analysis Guidance
TfWM	Transport for West Midlands
TMA	Traffic Management Act
UNESCO	United Nations Educational, Scientific and Cultural Organisation
WCS	Water Cycle Study
WLP	Wolverhampton Local Plan
WRMP	Water Resources Management Plan
WwTW	Wastewater Treatment Works
ZOI	Zone of Influence

1 Introduction

1.1 Purpose of this report

1.1.1 Lepus Consulting Ltd (Lepus) has been instructed by City of Wolverhampton Council (CWC) to undertake a Sustainability Appraisal (SA) process, incorporating the requirements of Strategic Environmental Assessment (SEA), Health Impact Assessment (HIA) and Equality Impact Assessment (EqIA), for the Wolverhampton Local Plan (WLP) 2024-2042.

1.1.2 This Regulation 19 SA Report has been prepared to present full details of the SA process to date and inform CWC's preparation of the WLP. 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

1.1.3 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. The role of SA 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 DLUHC and MHCLG (2021) Government guidance on plan making. Available at: <https://www.gov.uk/guidance/plan-making> [Date accessed: 20/05/24]

- 1.2.2 The SA process provides an opportunity to consider ways by which the plan can contribute to sustainability improvements, 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 when compared to 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 In the SEA procedure, an environmental report is prepared in which the likely significant effects on the environment of the proposed plan or programme and its reasonable alternatives are identified. The public and relevant environmental authorities are informed and consulted on the draft plan or programme and the environmental report.

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).
- 1.4.2 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 require 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.
- 1.4.4 This Regulation 19 SA Report has been prepared to meet the requirements of an SEA Environmental Report.

² DLUHC and MHCLG (2020) Strategic environmental assessment and sustainability appraisal. Available at: <https://www.gov.uk/guidance/strategic-environmental-assessment-and-sustainability-appraisal> [Date accessed: 20/05/24]

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> [Date accessed: 20/05/24]

⁴ The Environmental Assessment of Plans and Programmes Regulations (2004). Available at: <http://www.legislation.gov.uk/ukSI/2004/1633/contents/made> [Date accessed: 20/05/24]

1.4.5 The WLP is at the plan-making stage Regulation 19, known as ‘Publication’ in the Local Plan Regulations 2012⁵, as shown in Stage C of **Figure 1.2**.

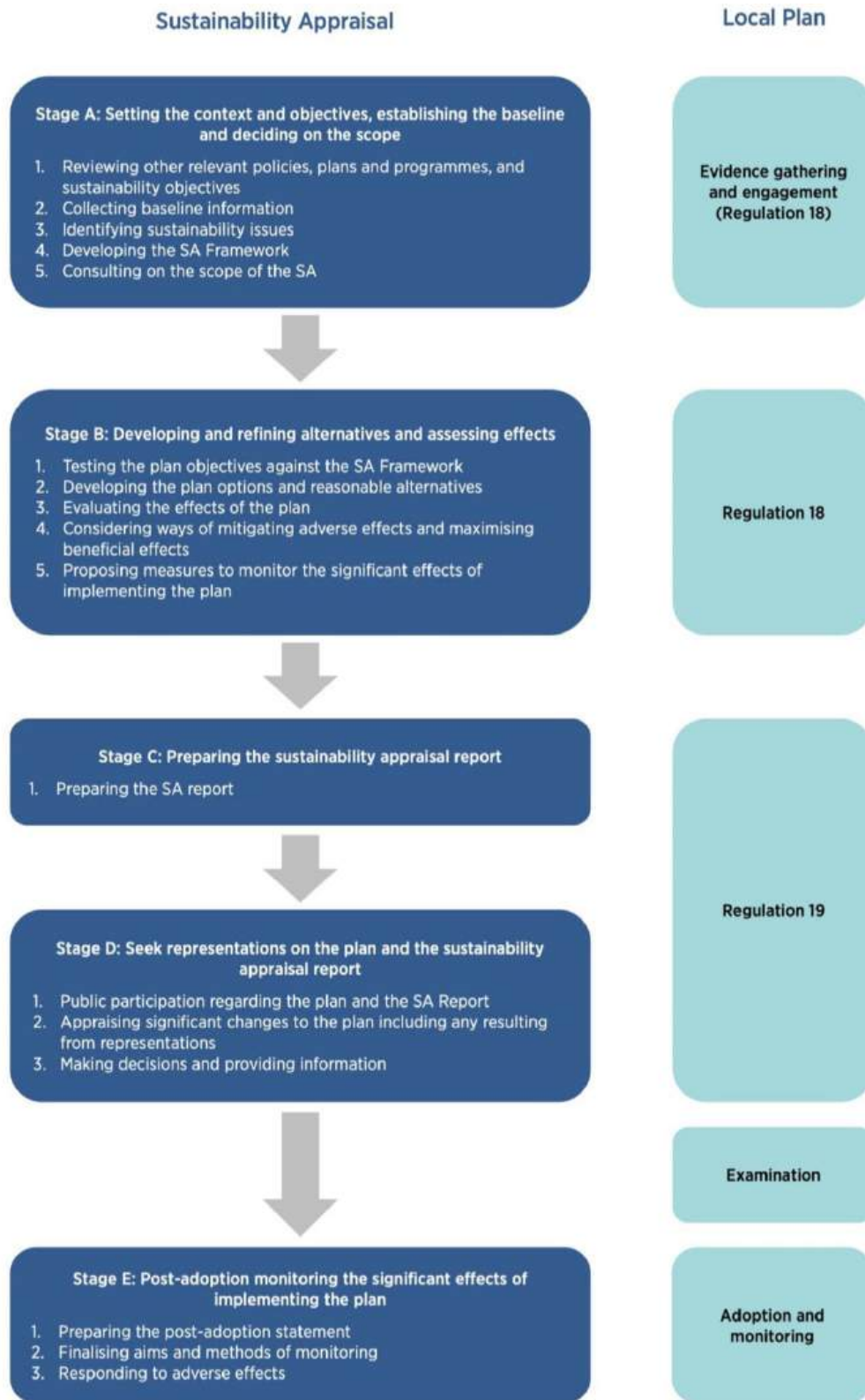


Figure 1.2: Sustainability appraisal process alongside local plan stages

⁵ The Town and Country Planning (Local Planning) (England) Regulations 2012. SI 767.

1.5 Health impact assessment

- 1.5.1 Government guidance states that health is influenced by numerous social, economic, environmental and cultural impacts⁶. Therefore, potential direct impacts from developments could be key contributors to negative health impacts. For example, transport developments cause issues with traffic accidents, noise and air pollution. Health Impact Assessments (HIAs) help decision-makers quantify the health risks or benefits associated with a development and propose likely alternatives.
- 1.5.2 HIAs are not statutory requirements for Local Plans. However, carrying out this assessment helps to ensure the WLP considers all health issues and construct new policies with the aim of increasing positive health impacts and reducing negative impacts.
- 1.5.3 It should be noted that human health is a topic which features in Schedule 2 of the SEA Regulations: Information for environmental reports. The HIA has been incorporated within SA Objective 12: Health (see **Appendix B** for the full SA Framework) and discussed further within **Chapter 11: Human health**.

1.6 Equality impact assessment

- 1.6.1 The aim of the Equality Act (2010)⁷ is to strengthen current laws that prevent discrimination. The act applies to the provision of services and public functions and thus includes the development of local authority policies and plans. Equality Impact Assessment (EqIA) aims to improve the work of councils and ensure plans do not discriminate in the way they provide services and employment and do all they can to promote equality.
- 1.6.2 EqIA is a systematic and evidence-based tool, which enables the WLP to consider the likely impact of work on different groups of people who share a protected characteristic⁸, identified in the Equality Act. Completion of EqIAs is a legal requirement under race, disability and gender equality legislation.
- 1.6.3 The EqIA has been incorporated within SA Objective 11: Equality (see **Appendix B** for the full SA Framework) and a screening of each proposed WLP policy against the protected characteristics of the Equality Act in **Appendix K**. The EqIA is discussed further within **Chapter 13: Population and material assets**.

1.7 Legislative context

- 1.7.1 When submitting their local plan to the Secretary of State, section 19(5) of the Planning and Compulsory Purchase Act⁹ requires that local planning authorities (LPAs) must have prepared and be able to submit an SA at the same time.

⁶ Department of Health (2010) Health Impact Assessment Tools. Available at: <https://www.gov.uk/government/publications/health-impact-assessment-tools> [Date accessed: 27/08/24]

⁷ Equality Act (2010) Available at: <https://www.legislation.gov.uk/ukpga/2010/15/contents> [Date accessed: 27/08/24]

⁸ It is against the law to discriminate against someone because of: age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race; religion or belief; sex; and sexual orientation.

⁹ Planning and Compulsory Purchase Act 2004. Available at: <https://www.legislation.gov.uk/ukpga/2004/5/contents> [Date accessed: 20/05/24]

- 1.7.2 The Environmental Assessment of Plans and Programmes Regulations¹⁰ (SEA Regulations) require that Strategic Environmental Assessments (SEA) be prepared for a wide range of plans and programmes, including Local Plans.
- 1.7.3 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.
- 1.7.4 PPG on SEA and SA¹¹ 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”.

1.8 How to read and understand the R19 SA Report

- 1.8.1 This report should be read alongside the Regulation 19 Publication Version (2024) of the Wolverhampton Local Plan. The various appendices provide essential contextual information to the main body of the report. The contents of this SA Report are 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 WLP and the SA process to date.
 - **Chapter 3** presents the evolution of the environment without the WLP.
 - **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 as set out in the WLP.
 - **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 WLP.
 - **Chapter 18** summarises ways in which the SA has influenced the WLP 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 other relevant 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.

¹⁰ The Environmental Assessment of Plans and Programmes Regulations 2004. Available at: <http://www.legislation.gov.uk/uksgi/2004/1633/contents/made> [Date accessed: 20/05/24]

¹¹ MHCLG (2020) Guidance: Strategic environmental assessment and sustainability appraisal. Available at: <https://www.gov.uk/guidance/strategic-environmental-assessment-and-sustainability-appraisal> [Date accessed: 20/05/24]

- **Appendix D** presents the assessment of the updated housing and employment growth options factoring in the latest identified need figures.
- **Appendix E** provides additional context to **Chapter 4** of the main Regulation 19 SA Report regarding the topic specific methodologies and assumptions used to assess reasonable alternative sites.
- **Appendix F** presents the assessment of 40 reasonable alternative sites assessed through the SA process (pre-mitigation).
- **Appendix G** presents the assessment of the 55 policies included in the Regulation 19 version of the WLP.
- **Appendix H** considers the potential mitigating influence of the WLP policies (excluding site-specific policies), and presents the post-mitigation assessment of all 40 reasonable alternative sites.
- **Appendix I** presents CWC's outline reasons for selection and rejection of reasonable alternative sites which have been identified, described and evaluated through the SA process.
- **Appendix J** presents the assessment of site allocation policy requirements as set out in the Regulation 19 WLP associated with the 44 allocations.
- **Appendix K** presents the EqIA screening of the WLP policies.

2 About the WLP and the sequencing of the SA process

2.1 Geography of the Plan area

- 2.1.1 The City of Wolverhampton administrative area comprises approximately 6,943.6ha, with a population of 264,036 people according to the Office for National Statistics (ONS) population estimate for mid-2021¹². **Figure 2.1** shows the administrative boundary of Wolverhampton, which comprises the Plan area for the WLP.
- 2.1.2 Wolverhampton City lies within the Black Country, which is a predominantly urban sub-region of the West Midlands. The sub-region includes the boroughs of Dudley, Sandwell, Walsall and the City of Wolverhampton. Wolverhampton City Centre is the key strategic centre of Wolverhampton, although the administrative area also contains two town centres of Bilston and Wednesfield, in addition to several local centres.
- 2.1.3 Wolverhampton is highly urbanised with some small extents of Green Belt land mainly to the north and west, and alongside the Smestow Brook and the Staffordshire and Worcestershire Canal. Although the city contains no major rivers, it does support several watercourses including the River Penk and River Tame which form tributaries of the River Trent, as well as Smestow Brook which is a tributary of the River Stour.
- 2.1.4 The area has a rich industrial heritage, including its extensive canal network, which opened up the mineral wealth of the area for exploitation during the Industrial Revolution. The Black Country area owes its name to black smoke, particularly from iron and coal industries, during a time when the Black Country became one of the most heavily industrialised areas in Britain.
- 2.1.5 Mining ceased in the area in the late 1960s, but manufacturing continues today, although on a much smaller scale. There is a total of 476,800 employee jobs across the Black Country as a whole¹³. In addition to manufacturing, which equate to approximately 7.4% of employee jobs in the Black Country, the biggest employment sectors include professional occupations (23.1%) and associated professional occupations (11.6%) elementary occupations (14.3%) and administrative and secretarial occupations (10.2%).
- 2.1.6 Wolverhampton itself was originally a market town, historically forming part of Staffordshire, but later became a major centre for the Industrial Revolution¹⁴. Today, Wolverhampton still provides a wide range of employment, leisure, retail and tourism opportunities to serve the Black Country and the wider area. Engineering remains an important aspect of Wolverhampton's economy.

¹² ONS (2022) Estimates of the population for the UK. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/populationandhouseholdestimatesenglandandwales/census2021unroundeddata> [Date accessed: 10/01/24]

¹³ Nomis (2024) Labour Market Profile – Black Country: April 2023-March 2024. Available at: <https://www.nomisweb.co.uk/reports/lmp/lep/1925185537/report.aspx> [Date accessed: 16/09/24]

¹⁴ Wolverhampton City Guide. Available at: <http://www.wolverhamptoncity.co.uk/> [Date accessed: 27/08/24]

2.1.7 Although there are challenges within Wolverhampton, and the wider Black Country, in terms of unemployment and lower earnings compared to other parts of the country, the Plan area also supports several further and higher educational facilities. This includes the University of Wolverhampton and the City of Wolverhampton College.

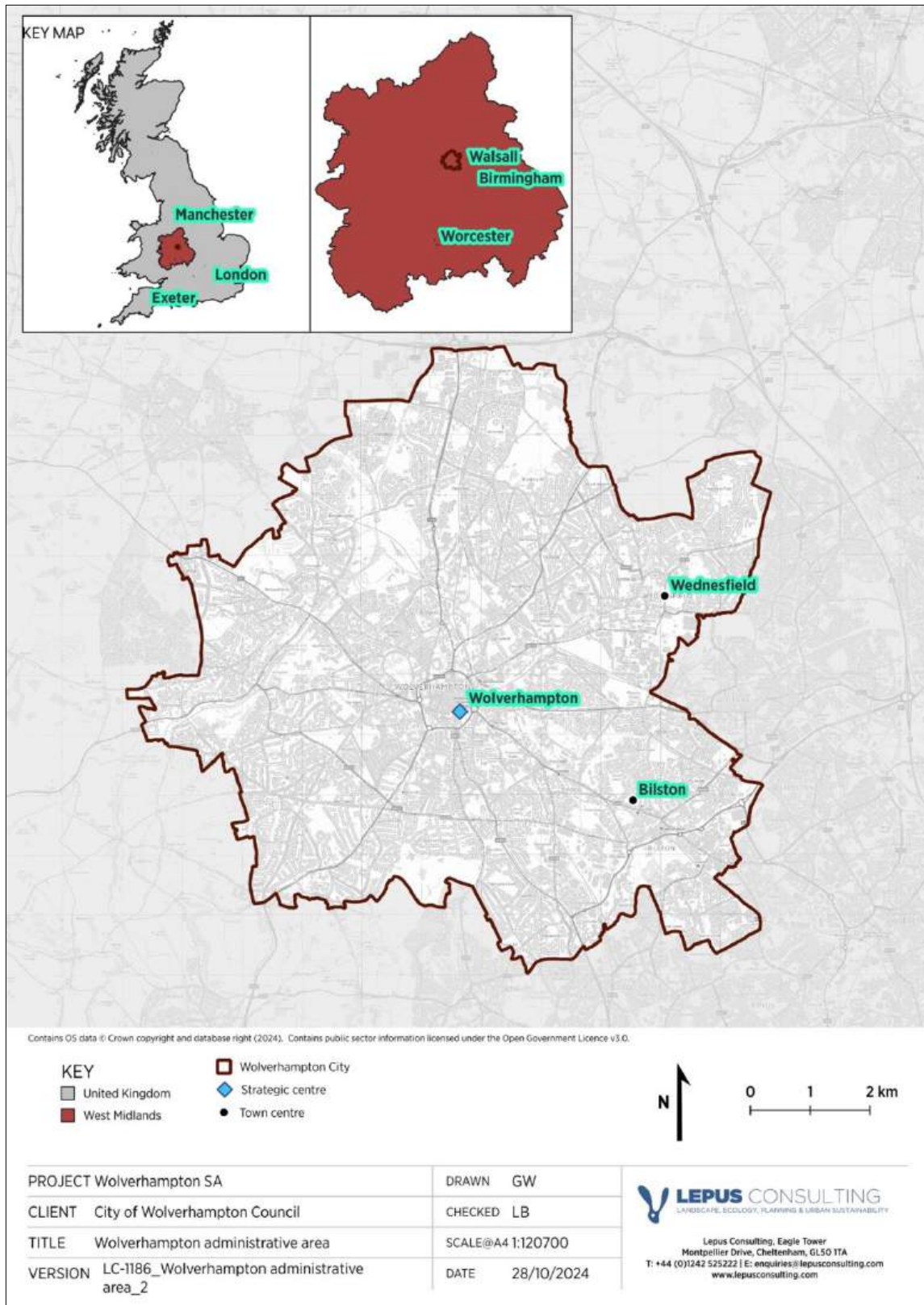


Figure 2.1: Wolverhampton Local Plan area

2.2 The Wolverhampton Local Plan

- 2.2.1 The WLP is being prepared by CWC, following the ending of work on the Black Country Plan (BCP) in autumn 2022. The WLP carries forward relevant information and evidence prepared as part of the Draft BCP, with changes in response to planning issues raised during consultation and new evidence and information for the City of Wolverhampton.
- 2.2.2 The BCP itself began as a review of the adopted Black Country Core Strategy (BCCS)¹⁵, produced by the four Black Country Authorities of Dudley Metropolitan Borough Council, Sandwell Metropolitan Borough Council, Walsall Council and CWC.
- 2.2.3 The BCCS was adopted in 2011 and covers the period up to 2026. The BCCS currently provides the strategic framework for the three Area Action Plans (AAPs) in Wolverhampton¹⁶, which set out local policies and site allocations for the parts of Wolverhampton where regeneration and growth is concentrated.
- 2.2.4 The purpose of the BCP was to review and update the adopted BCCS, and to set out planning policies and land allocations to support the growth and regeneration of the Black Country up to 2039.
- 2.2.5 Following the decision to end work on the BCP, CWC adopted a new Local Development Scheme (LDS) in October 2022 setting out the timetable for the immediate preparation of a new development plan for Wolverhampton called the Wolverhampton Local Plan (WLP). The WLP is an evolution of the Regulation 18 Draft BCP (2021), specific to Wolverhampton. Work on the WLP was paused when the government consulted on changes to the National Planning Policy Framework (NPPF) in December 2022. Following publication of a revised NPPF¹⁷ in December 2023, a new LDS has been produced which programmes Issues and Preferred Options consultation for spring 2024 and submission by June 2025, under the current local planning system¹⁸. The LDS also anticipates production of a Wolverhampton City Centre Supplementary Plan AAP under the new local plan system, to provide any additional housing allocations required for the City Centre area.
- 2.2.6 The emerging WLP sets out a vision and strategic priorities for land use and development within Wolverhampton, as well as strategic planning policies and land allocations to support the growth and regeneration of the City of Wolverhampton up to 2042. The vision of the WLP takes on board the vision as set out in the ‘Our City: Our Plan’¹⁹ strategic framework document to ensure that “*Wulfrunians will live longer, healthier lives*”, as shown in **Figure 2.2**.

¹⁵ Black Country Authorities (2011) Black Country Core Strategy. Available at: <https://www.wolverhampton.gov.uk/planning/planning-policies/black-country-core-strategy> [Date accessed: 24/09/24]

¹⁶ CWC Area Action Plans. Available at: <https://www.wolverhampton.gov.uk/planning/planning-policies/area-action-plans-aaps> [Date accessed: 24/09/24]

¹⁷ DLUHC (2023) National Planning Policy Framework. December 2023. Available at: https://assets.publishing.service.gov.uk/media/65829e99fc07f3000d8d4529/NPPF_December_2023.pdf [Date accessed: 27/08/24]

¹⁸ CWC (2024) Wolverhampton Local Development Scheme 2024–2027. Available at: <https://www.wolverhampton.gov.uk/planning/planning-policies/local-development-scheme-lds> [Date accessed: 24/09/24]

¹⁹ CWC (2024) Our City: Our Plan. 2024/2025. Available at: <https://www.wolverhampton.gov.uk/your-council-and-meetings/our-city-our-plan> [Date accessed: 27/08/24]

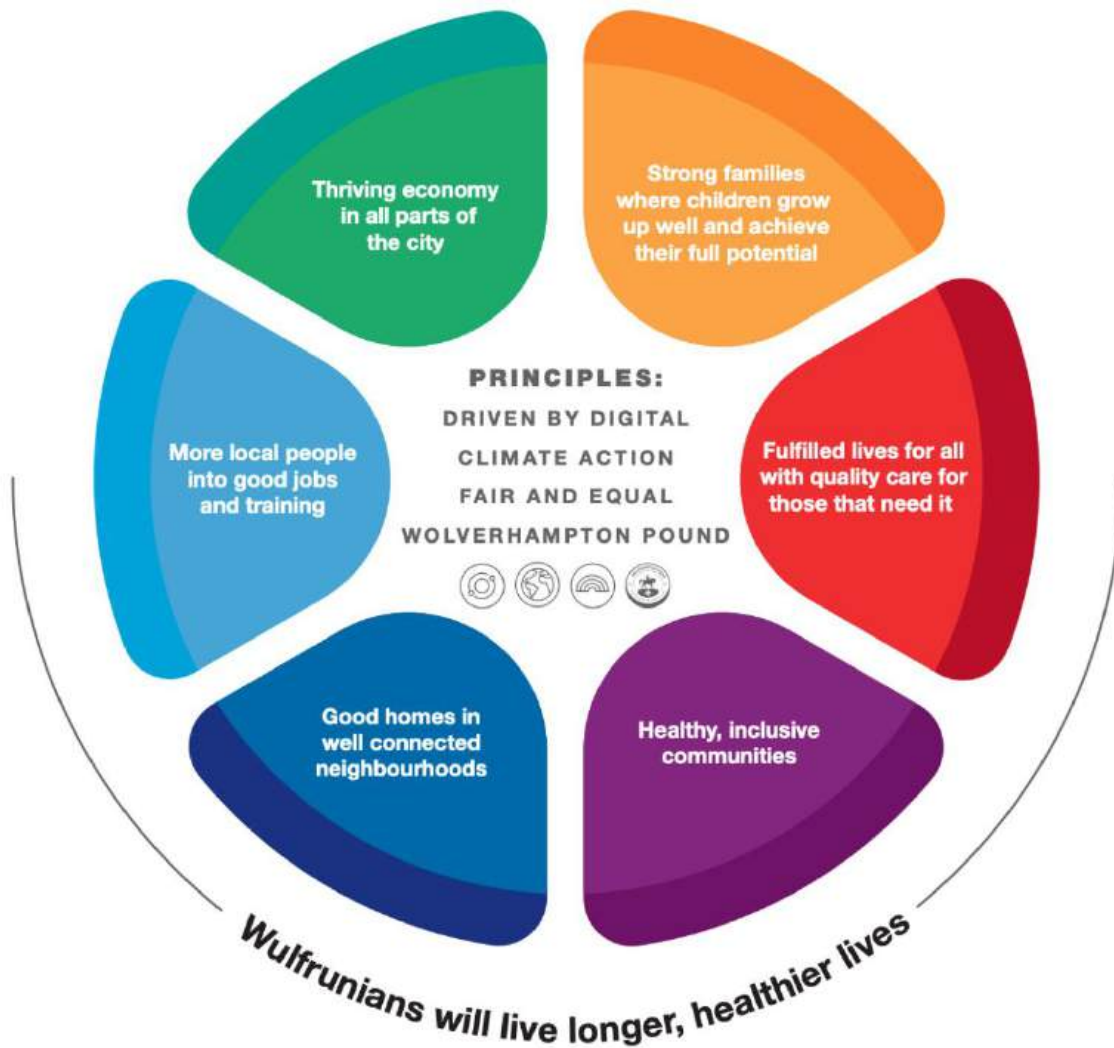


Figure 2.2: Principles for Wolverhampton as set out in the Our City: Our Plan document

2.2.7 The strategic priorities of the WLP are set out in **Table 2.1** below, in accordance with the priorities of the Our City: Our Plan document. The strategic priorities have been evaluated in the SA process alongside the WLP policies in **Appendix G**, where positive impacts across the SA Framework have been identified, recognising the intention to support sustainable growth whilst protecting and enhancing the natural and built environment.

Table 2.1: Strategic Priorities of the WLP

Our City: Our Plan Priority	Wolverhampton Local Plan Strategic Priority
Healthy, inclusive communities	<ul style="list-style-type: none"> • Strategic Priority 1: To provide a built and natural environment that supports the making of healthier choices by encouraging physical activity and recreation, active travel and social interaction and discouraging harmful behaviours. • Strategic Priority 2: To provide a built and natural environment that protects health and wellbeing by minimising pollution, providing healthy homes, reducing the negative health effects of climate change and providing streets which are safe for active and low emission travel. • Strategic Priority 3: To mitigate and adapt to climate change in a way that protects the people, environment and economy of Wolverhampton and meets wider national and international obligations by reducing carbon emissions, maximising use of low carbon energy solutions, actively reducing flood risk and enhancing green and blue infrastructure.

Our City: Our Plan Priority	Wolverhampton Local Plan Strategic Priority
	<ul style="list-style-type: none"> • Strategic Priority 4: To protect and enhance the natural environment, including biodiversity, geological resources and landscapes, and ensure that residents have good access to a high quality network of green infrastructure.
<p>Good homes in well-connected neighbourhoods</p>	<ul style="list-style-type: none"> • Strategic Priority 5: To provide a range and choice of home types and tenures to meet the needs of current and future residents and diversify the city housing offer. • Strategic Priority 6: To prioritise sustainable and active travel and improve transport infrastructure to ensure safe, efficient and sustainable accessibility within an integrated transport network.
<p>More local people into good jobs and training</p>	<ul style="list-style-type: none"> • Strategic Priority 7: To enable communities to share the benefits of economic growth by securing access to new job opportunities and enhanced skills and training programmes.
<p>Thriving economy in all parts of the city</p>	<ul style="list-style-type: none"> • Strategic Priority 8: To protect and enhance sustainable employment areas and provide a balanced portfolio of employment sites to support the development of key employment sectors and enable existing businesses to expand. • Strategic Priority 9: To enhance the vitality, diversification and performance of safe and secure centres which serve existing and future communities as high quality places to live, shop, work and visit. • Strategic Priority 10: To protect, sustain and enhance the quality of the built and historic environment whilst ensuring the delivery of distinctive and attractive places. • Strategic Priority 11: To ensure that Wolverhampton has the infrastructure in place to support its existing and future growth and prosperity. • Strategic Priority 12: To manage waste as a resource and minimise the amount produced and sent to landfill. • Strategic Priority 13: To safeguard and make the most sustainable use of Wolverhampton’s mineral resources without compromising environmental quality.

2.2.8 Once adopted, the WLP will provide a strategy for delivering development across the Plan area, and allocation of sites to help meet these needs. The WLP will provide certainty and transparency to residents, businesses and developers about how Wolverhampton City is expected to grow up to 2042.

2.2.9 The WLP will replace and update the current adopted development plan documents for the city, including the BCCS (adopted 2011) as discussed above, parts of the Stafford Road Corridor and Bilston Corridor AAPs (both adopted 2014)²⁰, and parts of the Wolverhampton Unitary Development Plan (adopted 2006)²¹.

2.3 Duty to Cooperate

2.3.1 The Duty to Cooperate (DtC) was created in the Localism Act 2011²² and amends the Planning and Compulsory Purchase Act 2004. Current national policy places a legal duty on LPAs and public bodies to engage constructively, actively and on an ongoing basis to maximise the effectiveness of local plan preparation in the context of strategic cross boundary matters.

²⁰ Stafford Road Corridor Area Action Plan (2014) and Bilston Corridor Area Action Plan (2014). Both available at: <https://www.wolverhampton.gov.uk/planning/planning-policies/area-action-plans-aaps> [Date accessed: 27/08/24]

²¹ CWC (2006) Unitary Development Plan 2001 – 2011. Available at: <https://www.wolverhampton.gov.uk/planning/planning-policies/unitary-development-plan-and-proposals-map> [Date accessed: 27/08/24]

²² Localism Act 2011. Available at: <https://www.legislation.gov.uk/ukpga/2011/20/contents> [Date accessed: 20/05/24]

2.3.2 For CWC, this means that unmet housing and economic land needs should be sought to be provided for across the wider Housing Market Area (HMA), Functional Economic Market Area (FEMA) and other areas with which Wolverhampton has a physical or functional relationship. Waste and minerals issues will also need to be addressed through DtC and liaison with Waste and Minerals Planning Authorities, where there is not sufficient infrastructure to manage waste and minerals within Wolverhampton.

2.3.3 A DtC Statement will be prepared, which will demonstrate how CWC has fulfilled this duty through the plan-making process. Statements of Common Ground will be agreed with relevant authorities and bodies on key DtC issues following the Publication consultation and before Submission.

2.4 Sustainability Appraisal alongside the WLP stages: Iteration

2.4.1 **Figure 2.3** provides a summary of the main plan making stages and includes SA outputs that were prepared at each stage.

2.4.2 The preparation of a Scoping Report was the first phase of the SA process, which 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 SA Scoping Report prepared in 2022²³.

2.4.3 Between November and December 2022, the content of the SA Scoping Report was consulted on with Historic England, Natural England and the Environment Agency. Whilst no comments were received at this stage from Historic England or the Environment Agency, comments received from Natural England during the scoping consultation were used to inform the preparation of the Regulation 18 SA, as set out in **Appendix C**.

2.4.4 The Regulation 18 Issues and Preferred Options SA Report²⁴ was consulted on between February and April 2024 with statutory consultees, other stakeholders and the general public. The SA Report included an assessment of reasonable alternatives, or 'options', set out in the Issues and Preferred Options document prepared by CWC. These related to options for growth and the spatial strategy, policy areas and development sites. Comments received during the Regulation 18 consultation relating to the SA were considered during the preparation of this Regulation 19 SA Report, and are also summarised in **Appendix C**.

2.4.5 This Regulation 19 SA Report draws on the information gathered and evaluation carried out during the SA process to date, and presents the assessment of updated WLP policies and new/amended reasonable alternatives that have come forward since the Regulation 18 stage. This report also provides CWC's updated outline reasons for selecting and rejecting reasonable alternative sites and options, taking into account the latest evidence.

²³ Lepus Consulting (2022) Sustainability Appraisal of the Wolverhampton Local Plan: Scoping Report, November 2022. Available at: <https://www.wolverhampton.gov.uk/planning/planning-policies/wolverhampton-local-plan/evidence-plan-preparation-documents> [Date accessed: 29/08/24]

²⁴ Lepus Consulting (2024) Sustainability Appraisal of the Wolverhampton Local Plan: Regulation 18 Issues and Preferred Options, January 2024. Available at: <https://www.wolverhampton.gov.uk/planning/planning-policies/wolverhampton-local-plan/evidence-plan-preparation-documents> [Date accessed: 29/08/24]

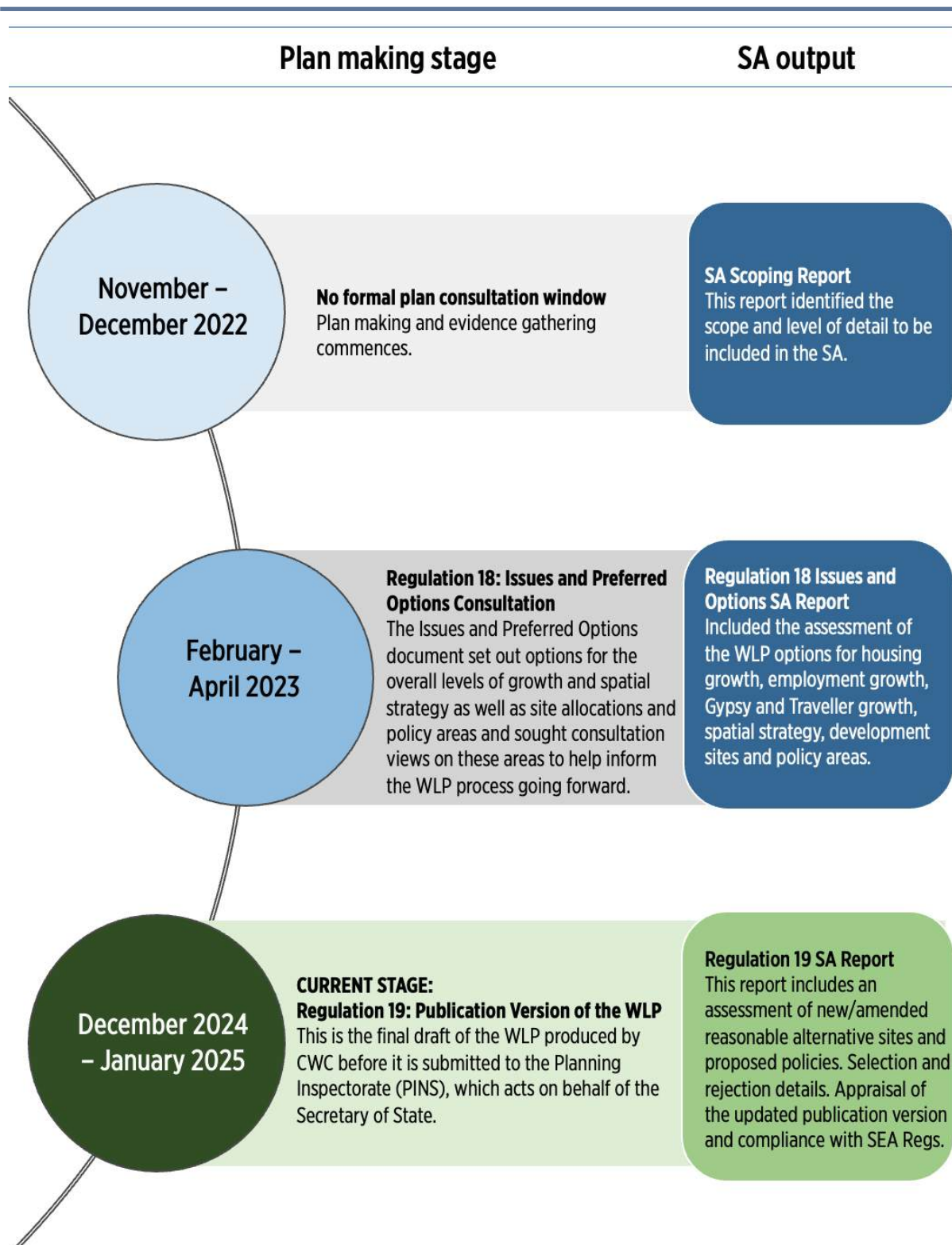


Figure 2.3: The WLP and SA process

2.5 Meeting the requirements of the SEA Regulations

2.5.1 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 2.4**.

- 

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 (and the SA Scoping Report).
- 

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 Chapter 3 (and the SA Scoping Report).
- 

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 Chapters 7 to 15 (and the SA Scoping Report).
- 

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 (Volume 1).

Figure 2.4: SEA checklist

3 Evolution of the environment without the WLP

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 Without the WLP, no new plan-led development would occur within the Wolverhampton area over and above that which is currently proposed in the adopted BCCS, the saved parts of the Wolverhampton Unitary Development Plan and the adopted AAPs. In this scenario, an appeal-led system would predominate. The nature and scale of development that may come forward under an appeal-led system is uncertain. However, 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 Wolverhampton in the absence of the WLP, considering information gathered at the Scoping stage as well as more up-to-date data and statistics.

Table 3.1: Likely evolution without the WLP

Theme	Likely evolution of the environment without the WLP
Air	<ul style="list-style-type: none"> • Primary sources of air pollution in the UK include road transport, industry, imports and agriculture. These sources would not be expected to change. • Traffic and congestion are likely to increase with population growth, with implications in particular for air quality, residents and wildlife, especially those within 200m of main roads. • The Wolverhampton Air Quality Management Area (AQMA) covers the whole local authority area and the principal pollutant affecting air quality is nitrogen dioxide (NO₂), mostly sourced from road traffic. Continuing to monitor air quality, especially within AQMAs, and implementation of measures outlined in Air Quality Action Plans will ensure that objectives are in place to decrease exceedances over time. • National trends suggest there is an increasing uptake of lower emission vehicle types, such as electric and hybrid cars, which will be likely to help limit road transport associated emissions in the WLP area and would be likely to further improve air quality. • The Local Transport Plan will still be implemented, which will be likely to have a positive impact on the local road network, relieving congestion and improving provision of public transport across the plan area. However, the proportion of residents in the WLP area that will opt to use sustainable transport modes is uncertain.
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. • A minimum of 10% biodiversity net gain at development sites will be required, due to policies set out in the NPPF and as set out in the Environment Act. • The NPPF and its policies relating to biodiversity will continue to be material considerations in planning decisions. It is however uncertain if developers will voluntarily adopt additional biodiversity enhancement measures. • There may be less opportunity to establish a strategically planned green infrastructure network across Wolverhampton without the WLP, which may reduce the likelihood for significant net gain in biodiversity or wider ecological benefits via planned developments. • It may be difficult to ensure that development is of appropriate type, scale and location to avoid adverse impacts on either biodiversity/geodiversity designations (of

Theme	Likely evolution of the environment without the WLP
	<p>international or local significance) or on the functioning ecological network of the WLP area and the various essential ecosystem services this provides.</p>
Climatic Factors	<ul style="list-style-type: none"> • Climatic and anthropogenic-induced climate change are increasing concerns for the WLP area. Emissions could continue to rise, and future development may not be as low carbon as possible, with potential for little demand for locally generated sustainable energy. • The frequency and severity of flooding will be likely to increase over time due to the changing climate, increasing the occurrence of extreme weather events and in light of the existing urbanised nature of the WLP area. The risk of surface water flooding will depend on the size, nature and extent of non-porous built surface cover in the future, and the effectiveness of the existing drainage system. • Total carbon emissions are expected to continue to decrease over the longer term as renewable energy becomes an increasingly competitive force in the UK energy market. • It is uncertain if there will be an opportunity to seek aspirational targets in regard to energy efficiency within development in association with meeting the target of carbon neutrality by 2050 in the absence of the WLP. • Technological advances, which may include renewable energies, electric vehicles, and efficient electricity supplies, will be expected to occur. • The lack of a planned growth strategy could lead to increased carbon emissions as development may be less likely to be located in sustainable locations.
Cultural Heritage	<ul style="list-style-type: none"> • National and local guidance seeks to protect designated assets and their settings such as listed buildings, conservation areas, scheduled monuments, and registered parks and gardens. • The Heritage at Risk Register will continue to be managed by Historic England who will continue to work with stakeholders to protect these assets. • Further heritage assets are likely to be identified in the future, with or without the Plan. • It is uncertain if connectivity with places, local distinctiveness and culture would be emphasised and protected in the absence of the WLP as it is anticipated that the WLP will require a Heritage Statement and/or Archaeological Desk-Based Assessment to be prepared to accompany future planning applications, where appropriate.
Human Health	<ul style="list-style-type: none"> • The population is expected to continue to increase. This is likely to place greater pressure on the capacity of key services and amenities, including health and leisure facilities and housing. • The life expectancy of men and women is anticipated to rise over time, in line with national trends, leading to a greater proportion of older residents with specific needs for housing and care services. • It is uncertain if existing public green spaces will be maintained and enhanced, to encourage residents to live healthy and active lifestyles.
Landscape	<ul style="list-style-type: none"> • The West Midlands Green Belt will continue to benefit from legislative protection. • The WLP area will remain amongst the least tranquil areas of the West Midlands. • It is uncertain the extent to which development will seek to conserve and enhance the character of local landscape and townscapes. In the absence of Plan-led development, there could potentially be a rise in the quantity of new development which discords with the local character by altering the style and scale of development.
Population and Material Assets	<ul style="list-style-type: none"> • The population of Wolverhampton is expected to continue to increase, which will be likely to result in secondary effects. Some of these secondary effects could include effects on health, education and social inequalities due to poorer accommodation and potential for fewer sustainable travel choices being available. • Energy consumption in all sectors is expected to increase. • There is likely to be a continued increase in the cost of buying or renting housing, although the rate of increase may reduce compared to previous years, in line with national trends. It is uncertain if future housing provision will satisfy local needs in terms of type, cost and location.

Theme	Likely evolution of the environment without the WLP
	<ul style="list-style-type: none"> • There is expected to be a shortage of housing in the area. This could lead to existing residents who wish to form new households living in overcrowded conditions or being forced to move outside the area, and potential new residents being unable to move in. • There will be less planning control over the location of future housing, with potential for planning applications for new housing being allowed in unsustainable locations and/or without necessary supporting infrastructure. • There is a need for more affordable housing within the WLP area, which could potentially be exacerbated without the WLP. • Continuing transformation of employment land into high quality employment land is likely in the absence of the WLP. • The number of jobs and businesses in the WLP is expected to increase based on current trend data. Although, there may be less planning control over the location of employment land and there may be limited job availability in some sectors if land is not allocated through the WLP. • Without a clear strategy to focus the limited amount of investment into centres and to defend against further investment in out-of-centre locations, the vitality of Wolverhampton City Centre may decline. This will have consequences in terms of opportunities for residents to access facilities, services and jobs, especially those who are disadvantaged. Furthermore, without investment concentrated into accessible centres there will be a less sustainable development pattern resulting in an increased need to travel, leading to increases in greenhouse gas (GHG) emissions. Declining centres will contribute to poor social inclusion.
Soil	<ul style="list-style-type: none"> • Soil is a non-renewable resource that will be likely to 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 a potential loss of GI/ previously undeveloped land and climate change.
Water	<ul style="list-style-type: none"> • There could potentially be new developments that result in over-capacity issues at wastewater treatment works (either cumulatively or individually), such as at Roundhill and Gospel End Sewerage Treatment Works. • In the absence of plan-led development, the efficiency and sustainability of water consumption may be unlikely to improve owing to the likely increase in population and associated water demand, depending on the nature of any future changes to national regulations, such as the Building Regulations and any emerging policy / regulations relating to water neutrality. • Water abstraction, consumption and treatment in the local area will continue to be managed by the Environment Agency and water companies through the Humber and Severn River Basin Management Plans (RBMPs), Water Resources Management Plans (WRMPs) and Catchment Abstraction Management Strategies (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 WLP (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 2022²⁵. The Scoping Report was subject to a five-week period of consultation between November and December 2022 with the statutory consultees (Natural England, Historic England and the Environment Agency). **Appendix C** presents a summary of comments received during each stage of consultation on the SA, including the Scoping Report.

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 Regulations²⁶. 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 WLP 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.

²⁵ Lepus Consulting (2022) Sustainability Appraisal of the Wolverhampton Local Plan: Scoping Report, November 2022.

²⁶ 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	Cultural heritage: Protect, enhance and manage sites, features and areas of archaeological, historical and cultural heritage importance.	Cultural heritage
2	Landscape: Protect, enhance and manage the character and appearance of the landscape and townscape, maintaining and strengthening local distinctiveness and sense of place.	Landscape, cultural heritage
3	Biodiversity, flora, fauna and geodiversity: Protect, enhance and manage biodiversity and geodiversity.	Biodiversity, flora and fauna
4	Climate change mitigation: Minimise Wolverhampton’s contribution to climate change.	Climatic factors
5	Climate change adaptation: Plan for the anticipated levels of climate change.	Climatic factors, soil and water
6	Natural resources: Protect and conserve natural resources.	Soil, water and material assets
7	Pollution: Reduce air, soil, water and noise pollution.	Air, water, soil and human health
8	Waste: Reduce waste generation and disposal and achieve the sustainable management of waste.	Population and material assets
9	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
10	Housing: Provide affordable, environmentally sound and good quality housing for all.	Population
11	Equality: Reduce poverty, crime and social deprivation and secure economic inclusion.	Population and human health
12	Health: Safeguard and improve community health, safety and wellbeing.	Human health and population
13	Economy: Develop a dynamic, diverse and knowledge-based economy that excels in innovation with higher value, lower impact activities.	Population and material assets
14	Education, skills and training: Raise educational attainment and develop and maintain a skilled workforce to support long-term competitiveness.	Population

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 environment²⁷.
- Office of Deputy Prime Minister (2005) A Practical Guide to the SEA Directive²⁸.
- Department for Levelling Up, Housing and Communities (DLUHC) (2023) National Planning Policy Framework (NPPF)²⁹.
- DLUHC and Ministry of Housing, Communities & Local Government (MHCLG) (2023) Planning Practice Guidance (PPG)³⁰.
- Royal Town Planning Institute (RTPI) (2018) Strategic Environmental Assessment, Improving the effectiveness and efficiency of SEA/SA for land use plans³¹.
- Public Health England (2020) Health Impact Assessment in spatial planning³².

4.3 Appraisal process

4.3.1 The purpose of this document is to provide an appraisal of the WLP including reasonable alternatives in line with Regulation 12 of the SEA Regulations³³ 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”.*

²⁷ 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 [Date accessed: 27/08/24]

²⁸ 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 [Date accessed: 27/08/24]

²⁹ DLUHC (2023) National Planning Policy Framework, December 2023. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2> [Date accessed: 27/09/24]

³⁰ DLUHC & MHCLG (2023) Planning practice guidance. Available at: <https://www.gov.uk/government/collections/planning-practice-guidance> [Date accessed: 27/08/24]

³¹ 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/> [Date accessed: 27/08/24]

³² Public Health England (2020) Health Impact Assessment in planning. Available at: <https://www.gov.uk/government/publications/health-impact-assessment-in-spatial-planning> [Date accessed: 27/09/24]

³³ The Environmental Assessment of Plans and Programmes Regulations 2004 (SEA Regulations). Available at: <https://www.legislation.gov.uk/uksi/2004/1633/contents/made> [Date accessed: 27/08/24]

- 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**).

Box 4.1: Schedule 1 of the SEA Regulations³⁴

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 the sensitivity of receptors and the magnitude of anticipated impacts. 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.

Sensitivity

- 4.4.2 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.
- 4.4.3 A guide to the range of scales used in determining sensitivity is presented in **Table 4.2**. For most receptors, sensitivity increases with geographic scale.

³⁴ The Environmental Assessment of Plans and Programmes Regulations 2004 (SEA Regulations). Available at: <https://www.legislation.gov.uk/uksi/2004/1633/contents/made> [Date accessed: 27/08/24]

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.

Magnitude

4.4.4 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	Partial loss/alteration/improvement to one or more key features; or The impact is one of the following: <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	Minor loss/alteration/improvement to one or more key features of the receptor; or The impact is one of the following: <ul style="list-style-type: none"> Reversible and short-term; Reversible and occasional; or Short-term and occasional.

4.5 Significant effects

4.5.1 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.

4.5.2 The assessment of impacts and subsequent evaluation of significant effects is in accordance with Schedule 2 (6) of the SEA Regulations³⁵, 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 --	The size, nature and location of a development proposal would be likely to: <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 uncertain whether impacts would be positive or adverse.
Minor Positive +	The size, nature and location of a development proposal would be likely to: <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 ++	The size, nature and location of a development proposal would be likely to: <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.

4.5.3 When selecting a single value to best represent the sustainability performance, and to understand the significance of effects in terms of the relevant SA Objective, the precautionary principle³⁶ has been used. This is a worst-case scenario approach; if a positive effect is identified in relation to one criterion (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 provide only an indicative summary and the accompanying assessment text provides a fuller explanation of the sustainability performance of the option.

³⁵ The Environmental Assessment of Plans and Programmes Regulations 2004 (SEA Regulations). Available at: <https://www.legislation.gov.uk/ukxi/2004/1633/contents/made> [Date accessed: 25/09/24]

³⁶ 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,

- 4.5.4 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).
- 4.5.5 Significance of effect has been categorised as minor or major. **Table 4.4** sets out the significance matrix and explains the terms used to evaluate each reasonable alternative or proposal against each SA Objective of the SA Framework. 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.
- 4.5.6 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. Likely impacts are not intended to be summed.
- 4.5.7 A number of topic-specific methodologies and assumptions have been applied to the appraisal process for reasonable alternative sites against each of the SA Objectives (see **Appendix E**). These should be borne in mind when considering the assessment findings.

4.6 Limitations of predicting effects

- 4.6.1 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.
- 4.6.2 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.
- 4.6.3 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.
- 4.6.4 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. Additionally, the appraisal of the WLP is limited in its assessment of carbon emissions, and greater detail of carbon data would help to better quantify effects.
- 4.6.5 All data used is secondary data obtained from the Council or freely available on the internet.

animal or plant health, which would be inconsistent with protection normally afforded to these within the European Community, the Precautionary Principle is triggered".

5 Reasonable alternatives

5.1 Context

5.1.1 Regulation 12 of the SEA Regulations³⁷ states that: *“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”.*

5.1.2 PPG³⁸ states that: *“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”.*

5.1.3 The Council has therefore demonstrated how they have identified, described and evaluated reasonable alternatives as part of the plan making process within this SA Report (which includes the requirements of an SEA Environmental Report). 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, and how the SA influenced the preparation of the WLP.

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 a local plan require reasonable alternatives.

5.2.2 All reasonable alternatives have been identified by CWC. Reasonable alternatives have been identified through consultation and close working with stakeholders, including the most recent stakeholder comments in response to the Regulation 18 Issues and Preferred Options consultation. Furthermore, the identification of reasonable alternatives has been informed by national, regional and local policy context, the spatial portrait and key issues within Wolverhampton and responses made under consultation to the former Draft BCP. The Statement of Community Involvement³⁹ details how CWC ensures that relevant public bodies, neighbouring authorities and other regional/local groups, as well as the general public, have opportunities to comment at different stages of the planning process.

5.2.3 In addition to a suite of draft policies assessed at Regulation 18 and revised at Regulation 19, a range of reasonable alternatives (see **Figure 5.1**) have been considered throughout the plan making process, for the following different attributes of the WLP:

³⁷ The Environmental Assessment of Plans and Programmes Regulations 2004 (SEA Regulations). Available at: <https://www.legislation.gov.uk/ukxi/2004/1633/contents/made> [Date accessed: 27/08/24]

³⁸ MHCLG (2020) Planning Practice Guidance: Strategic environmental assessment and sustainability appraisal. Available at: <https://www.gov.uk/guidance/strategic-environmental-assessment-and-sustainability-appraisal> [Date accessed: 27/08/24]

³⁹ CWC (2023). Wolverhampton Statement of Community Involvement. Available at: <https://wolverhampton.moderngov.co.uk/mgConvert2PDF.aspx?ID=254434> [Date accessed: 19/09/24]

- **Housing growth options** x3 (originally assessed within the Regulation 18 Issues and Preferred Options SA Report⁴⁰ and revised within **Appendix D** of this Regulation 19 SA Report);
- **Employment growth options** x3 (originally assessed within Regulation 18 SA Report and revised within **Appendix D** of this Regulation 19 SA Report);
- **Gypsy and Traveller growth options** x2 (see Regulation 18 SA Report);
- **Spatial options** x7 (see Regulation 18 SA Report); and
- **Reasonable alternative development sites** x40 (see **Appendix F** of this Regulation 19 SA Report, which supersedes the site assessments as set out in the Regulation 18 SA⁴¹).

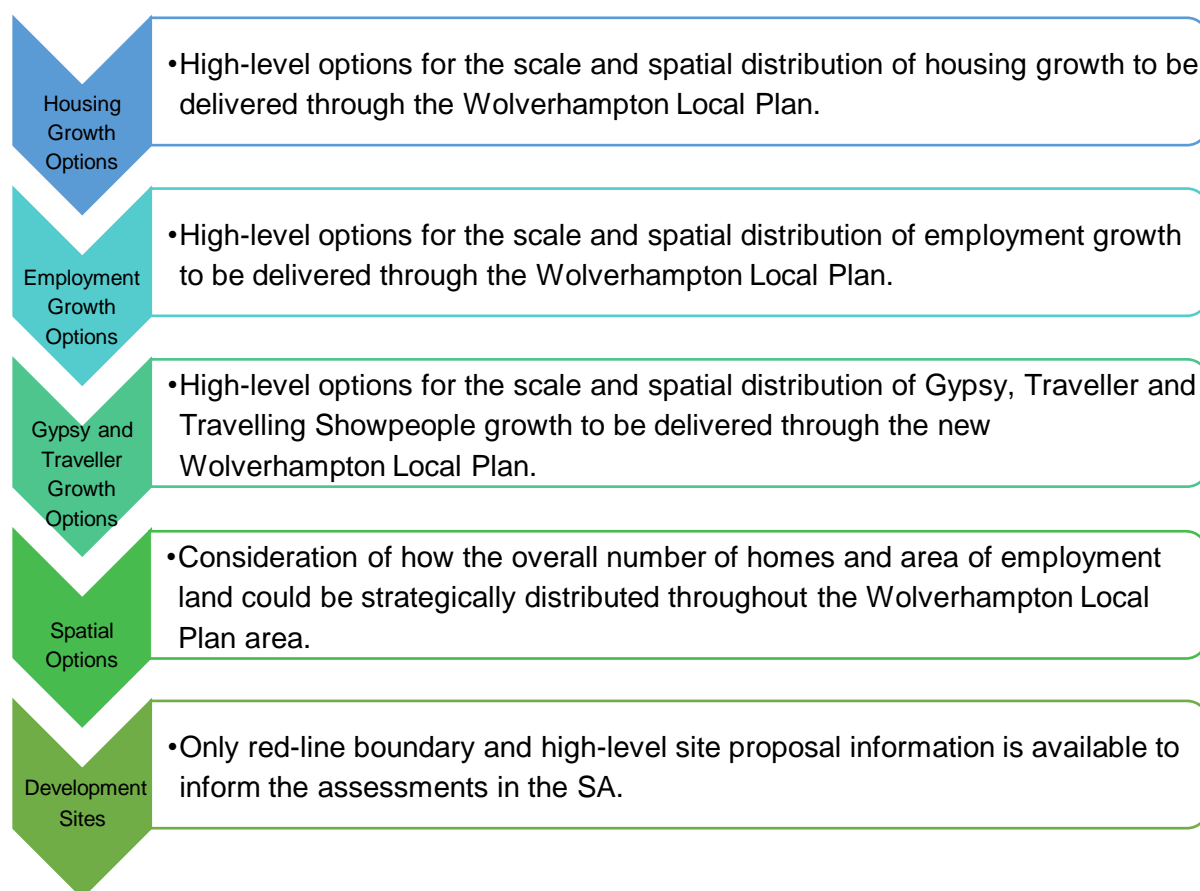


Figure 5.1: Definitions of reasonable alternatives assessed throughout the SA

5.2.4 **Figure 5.2** 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.

⁴⁰ Lepus Consulting (2024) Sustainability Appraisal of the Wolverhampton Local Plan: Regulation 18 Issues and Preferred Options, January 2024. Available at: <https://www.wolverhampton.gov.uk/planning/planning-policies/wolverhampton-local-plan/evidence-plan-preparation-documents> [Date accessed: 03/09/24]

⁴¹ NB: A total of 48 reasonable alternative sites were identified and evaluated in the Regulation 18 SA Report. Following the removal of 14 sites that have now been built out or have planning permission, and the addition of six sites identified since the Regulation 18 consultation, there is now a total of 40 reasonable alternative sites.

Quick guide to reasonable alternatives

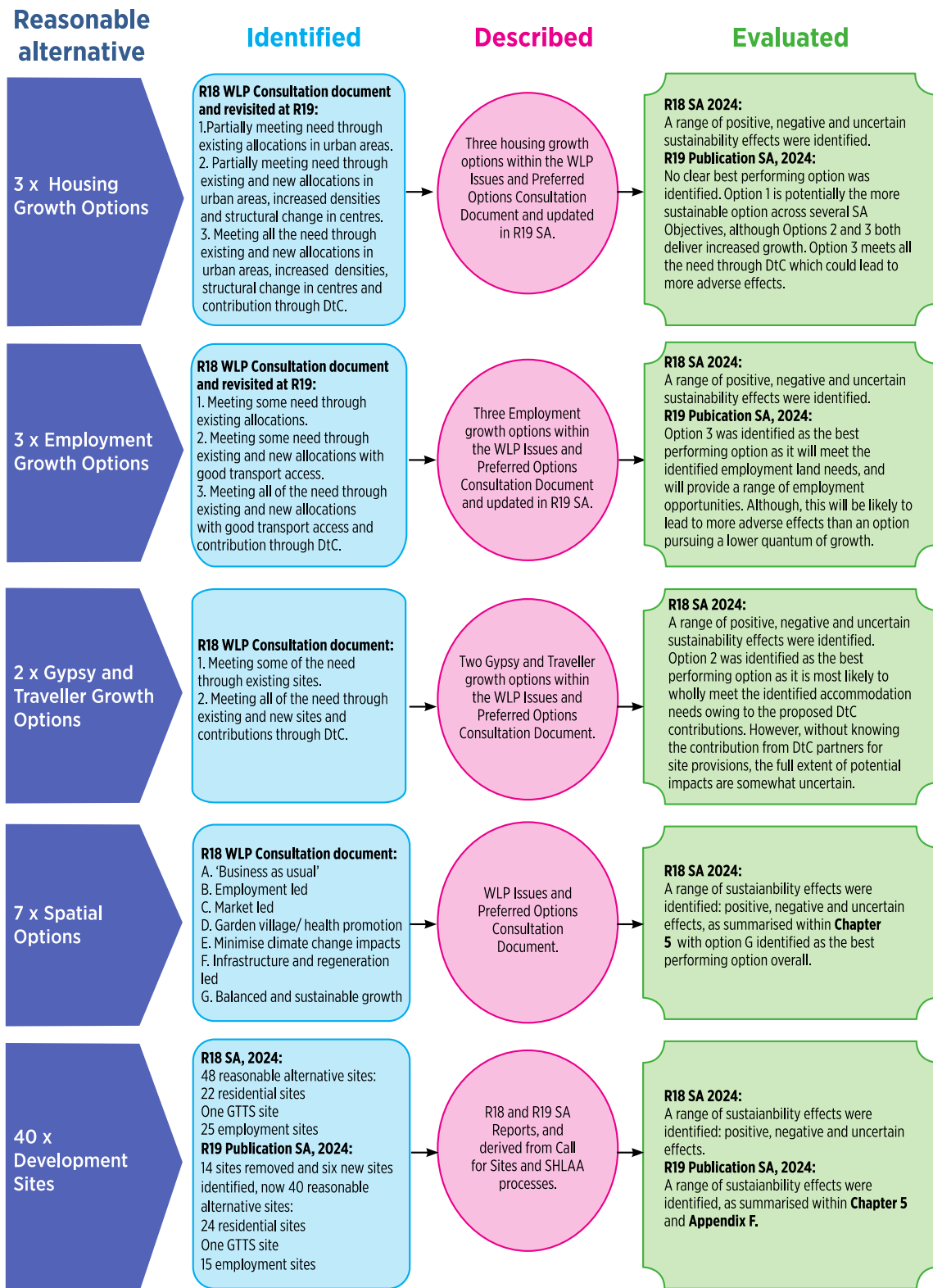


Figure 5.2: The identification, description and evaluation of reasonable alternatives considered throughout the WLP process

5.3 Housing growth options

5.3.1 Paragraph 61 of the NPPF⁴² states that the minimum number of homes needed in an area should be informed by a local housing need assessment, conducted using the standard method outlined in PPG⁴³, unless the LPA feels that circumstances warrant an alternative approach. The NPPF also states “*any needs that cannot be met within neighbouring areas should also be taken into account in establishing the amount of housing to be planned for*”.

5.3.2 CWC has therefore identified ‘housing growth options’, which are high-level options for the scale and distribution of housing growth to be delivered through the WLP. Three housing growth options were identified during the Regulation 18 consultation stage. These have subsequently been updated as part of the current stage of plan-making: Regulation 19. Identification of options has drawn on the current housing land supply, potential supply through DtC, and available evidence base information, primarily the Strategic Housing Land Availability Assessment (SHLAA).

Appraisal of housing growth options at Regulation 18 (January 2024)

5.3.3 Three housing growth options were identified by CWC and assessed within the Regulation 18 Issues and Preferred Options SA Report⁴⁴. The options are shown in **Table 5.1**. These options included overall housing quanta and broad direction of growth i.e. the proportion of the housing to be met within Wolverhampton’s urban area and met through exporting through the DtC. In light of the current NPPF position⁴⁵, CWC took the decision to not review the Green Belt and as such distribution of growth within the Green Belt is not considered to be a reasonable alternative.

5.3.4 The options assessed at Regulation 18 were based on housing need figures calculated in April 2022, which demonstrated a need for 1,086 homes per year, equating to a total of 21,720 homes during the period 2022–2042. Options H1 and H2 failed to meet the identified need at the time of their evaluation, whilst Option H3 met the identified need.

5.3.5 It was noted by CWC that the housing numbers associated with each option would be subject to amendment at the Regulation 19 stage owing to annual changes in housing need and supply, and that the Plan period was subject to change.

Table 5.1: Wolverhampton housing growth options identified by CWC at the Regulation 18 stage

Option	Description of housing growth option	CWC assessment of option
Option H1	Carry forward existing housing allocations which focus housing growth in urban area: <ul style="list-style-type: none"> Around 9,722* homes on existing supply in urban area 	<ul style="list-style-type: none"> Shortfall of 11,998* homes against housing need 2022*-42 Sustainable pattern of development

⁴² DLUHC (2023) National Planning Policy Framework. December 2023. Available at: https://assets.publishing.service.gov.uk/media/65829e99fc07f3000d8d4529/NPPF_December_2023.pdf [Date accessed: 24/09/24]

⁴³ DLUHC and MHCLG (2020) Planning Practice Guidance. Available at: <https://www.gov.uk/guidance/housing-and-economic-development-needs-assessments> [Date accessed: 24/09/24]

⁴⁴ Lepus Consulting (2024) Sustainability Appraisal of the Wolverhampton Local Plan: Regulation 18 Issues and Preferred Options, January 2024. Available at: <https://www.wolverhampton.gov.uk/planning/planning-policies/wolverhampton-local-plan/evidence-plan-preparation-documents> [Date accessed: 03/09/24]

⁴⁵ Paragraph 145 of the NPPF (December 2023) states that “*Once established, there is no requirement for Green Belt boundaries to be reviewed or changed when plans are being prepared or updated*”

Option	Description of housing growth option	CWC assessment of option
Option H2	<p>Carry forward existing housing allocations and make new allocations which focus housing growth in urban area, with increased density in accessible locations and structural change in Centres:</p> <ul style="list-style-type: none"> • Around 9,722* homes on existing supply in urban area • 61 homes on one new allocation (following discount) • 524* homes from density uplift and structural change in Wolverhampton City Centre 	<ul style="list-style-type: none"> • Shortfall of 11,413* homes against housing need 2022*-42 • Highly sustainable pattern of development
Option H3	<p>Carry forward existing housing allocations and make new allocations which focus housing growth in urban area, with increased density in accessible locations and structural change in Centres, and export remaining housing need to neighbouring authorities:</p> <ul style="list-style-type: none"> • Around 9,722* homes on existing supply in urban area • 61 homes on one new allocation (following discount) • Around 524* homes from density uplift and structural change in Centres • Around 11,413* homes exported through Duty to Cooperate 	<ul style="list-style-type: none"> • All of housing need 2022*-42 met • Highly sustainable pattern of development • Sufficient existing and potential offers from neighbouring authorities which have a strong relationship with Wolverhampton

Appraisal of housing growth options at Regulation 19 (this report)

- 5.3.6 As of April 2024, the housing need figure for Wolverhampton is 1,096 homes per year, according to the national standard method including a 35% uplift which applies to the 20 largest towns and cities. This means that the housing need which the WLP must seek to meet for the updated Plan period (2024-2042) is 19,728 homes.
- 5.3.7 The latest Wolverhampton SHLAA (2024)⁴⁶ estimates the current supply of housing land in the Wolverhampton urban area up to 2042. This supply takes into account all identified sites which are currently suitable and deliverable for housing, and also reasonable windfall allowances. The total identified urban housing supply is 8,850 homes, leaving a significant unmet housing need for the Plan period of 10,878 homes.
- 5.3.8 The three options for housing growth as identified by CWC at the Regulation 18 stage have been updated to take account of the latest housing evidence available at the Regulation 19 stage, and to cover the updated period for the WLP which will now cover from 2024 to 2042. The updated housing growth options are presented in **Table 5.2**.
- 5.3.9 The full assessments of the updated housing growth options can be found in **Appendix D**. The broad distribution of growth under the three options, and the overall conclusions for the Regulation 19 housing growth options, remain unchanged from Regulation 18.

Table 5.2: *Wolverhampton housing growth options identified by CWC at the Regulation 19 stage*

Option	Description of housing growth option	CWC assessment of option
Option H1	<p>Carry forward existing housing allocations which focus housing growth in urban area:</p> <ul style="list-style-type: none"> • Around 8,850 homes on existing supply in urban area 	<ul style="list-style-type: none"> • Shortfall of 10,878 homes against housing need 2024-42 • Sustainable pattern of development

⁴⁶ City of Wolverhampton Council (2024) Wolverhampton Strategic Housing Land Availability Assessment (SHLAA) Update as of April 2024. Draft, August 2024.

Option	Description of housing growth option	CWC assessment of option
Option H2	<p>Carry forward existing housing allocations and make new allocations which focus housing growth in urban area, with increased density in accessible locations and structural change in Centres:</p> <ul style="list-style-type: none"> • Around 8,850 homes on existing supply in urban area • 61 homes on one new allocation (following discount) • Around 419 homes from density uplift and structural change in Centres 	<ul style="list-style-type: none"> • Shortfall of 10,398 homes against housing need 2024-42 • Highly sustainable pattern of development
Option H3	<p>Carry forward existing housing allocations and make new allocations which focus housing growth in urban area, with increased density in accessible locations and structural change in Centres, and export remaining housing need to neighbouring authorities:</p> <ul style="list-style-type: none"> • Around 8,850 homes on existing supply in urban area • 61 homes on one new allocation (following discount) • Around 419 homes from density uplift and structural change in Centres • Around 10,398 homes exported through Duty to Cooperate 	<ul style="list-style-type: none"> • All of housing need 2024-42 met • Highly sustainable pattern of development • 35% cities and urban centres uplift of 5,115 homes met within Wolverhampton • Existing and potential contribution offers from neighbouring authorities which have a strong relationship with Wolverhampton • Birmingham and Black Country HMA Statement of Common Ground to address remaining unmet need

5.3.10 **Table 5.3** summarises the SA findings. The assessments are presented in full within **Appendix D**.

5.3.11 Environmental assessment needs to have details of size, nature and location of the proposals in order for impacts to be understood in relation to the environmental baseline. The housing options have only 'nature', in this case housing. The size and location details are not present, beyond the broad direction towards the existing urban area, which means that any attempt to evaluate impacts is necessarily high level with restricted diagnostic conclusions.

5.3.12 A larger quantum of housing growth will generally have more potential to lead to adverse effects, particularly on environmentally focused SA Objectives. Options H1 and H2 propose significantly smaller housing numbers at 8,850 and 9,330 respectively, compared to Option H3 which proposes 19,728 homes. Development proposed under Options H1 and H2 would be located wholly within Wolverhampton's urban area. Based on the high-level scoring system, Options H1 and H2 have been identified to score the same overall (as shown within **Table 5.3**), however, as Option H1 provides a lower housing supply than Option H2, it has potential to perform slightly better against environmental SA Objectives 3 (biodiversity), 4 (climate change mitigation), 7 (pollution) and 8 (waste). Despite this, Options H1 and H2 would both lead to a significant shortfall against the identified housing need; therefore, minor negative impacts have been identified against SA Objective 11 (equality) and minor positive impacts against SA Objective 10 (housing) due to the likely reduced scope for delivering varied and high-quality homes to meet the needs of the population.

5.3.13 On the contrary, for Option H3 a major positive impact was recorded against SA Objective 10, where the proposed development would meet the identified housing need of 19,728. However, major negative impacts were identified for Option H3 for SA Objectives 3 (biodiversity), 4 (climate change mitigation), 7 (pollution) and 8 (waste) due to the larger quantum of growth proposed under this option having potential to lead to more adverse effects than Options H1 or H2. Approximately half of the growth proposed under Option H3 (10,398 homes) will be exported to neighbouring authorities, which has resulted in uncertainty in the expected impacts for the proposed housing growth since the location would be determined through other authorities' local plans.

5.3.14 Overall, whilst Option H1 can be identified as the best performing within several SA Objectives, the three options would deliver a similar level of growth within Wolverhampton itself and as such there is very little separating the options in terms of effects within the Plan area. Options H2 and H3 both seek to deliver the same amount of increased growth in accessible locations and maximise opportunities for sustainable urban growth within Wolverhampton. In order to meet the identified housing needs, it will be necessary to export a proportion of growth to neighbouring authorities as set out in Option H3; however, this is likely to increase potential for adverse effects when compared to pursuing a lower quantum of growth.

Table 5.3: Impact matrix of the three housing growth options (extracted from Appendix D)

	SA1	SA2	SA3	SA4	SA5	SA6	SA7	SA8	SA9	SA10	SA11	SA12	SA13	SA14
Housing Growth Option	Cultural Heritage	Landscape	Biodiversity	CC Mitigation	CC Adaptation	Natural Resources	Pollution	Waste	Transport	Housing	Equality	Health	Economy	Education
H1	+/-	+/-	-	-	+/-	+	-	-	++	+	-	++	++	++
H2	+/-	+/-	-	-	+/-	+	-	-	++	+	-	++	++	++
H3	+/-	+/-	--	--	+/-	+/-	--	--	+	++	+/-	+	+	+

Selection and rejection of housing growth options

Comment from Council: Considering the housing evidence and the SA findings, CWC concluded that *“The Preferred Option H3 is the only one of the three growth options which has the potential to meet housing need for Wolverhampton and meet national guidance on sustainable development”*.

5.4 Gypsy and Traveller growth options

5.4.1 In accordance with the Planning policy for traveller sites⁴⁷, Gypsies and Travellers are defined as *“Persons of nomadic habit of life whatever their race or origin, including such persons who on grounds only of their own or their family’s or dependants’ educational or health needs or old age have ceased to travel temporarily, but excluding members of an organised group of travelling showpeople or circus people travelling together as such”*.

⁴⁷ MHCLG (2015) Planning policy for traveller sites. Available at: <https://www.gov.uk/government/publications/planning-policy-for-traveller-sites> [Date accessed: 24/09/24]

- 5.4.2 Travelling Showpeople are defined as “*Members of a group organised for the purposes of holding fairs, circuses or shows (whether or not travelling together as such). This includes such persons who on the grounds of their own or their family’s or dependants’ more localised pattern of trading, educational or health needs or old age have ceased to travel temporarily, but excludes Gypsies and Travellers as defined above*”.
- 5.4.3 The Black Country Gypsy and Traveller Accommodation Assessment (GTAA) (2022)⁴⁸ assessed accommodation needs for Gypsies, Travellers and Travelling Showpeople across the WLP area and the wider Black Country. Subsequent updated figures were identified for Wolverhampton (2023)⁴⁹
- 5.4.4 Taking into consideration the updated Plan period for the WLP, the identified 5-year Gypsy and Traveller accommodation need for Wolverhampton up to 2032 is 33 pitches.
- 5.4.5 One site is currently allocated in the Stafford Road AAP⁵⁰ for 12 pitches at the ‘Former Bushbury Reservoir, Showell Road’ which CWC are seeking to bring forward through the WLP.
- 5.4.6 Two options for Gypsy and Traveller growth have been identified by CWC (see **Table 5.4**). Both options include provision of 12 Gypsy and Traveller pitches at the carried forward ‘Former Bushbury Reservoir, Showell Road’ site, and regularising two pitches on the currently unauthorised site located on Wolverhampton Road in Heath Town. Option G2 also considers the potential to export growth through DtC.

Table 5.4: Wolverhampton Gypsy and Traveller pitch options identified by CWC at the Regulation 18 stage

Option	Description of option	CWC assessment of option
Option G1	Make use of existing sites to deliver new gypsy and traveller pitches up to 2032: <ul style="list-style-type: none"> • 2 pitches regularised on currently unauthorised site • 12 pitches on existing allocated site 	<ul style="list-style-type: none"> • 19 pitch shortfall against Wolverhampton gypsy and traveller pitch need up to 2032
Option G2	Make use of existing and potential new sites to deliver new gypsy and traveller pitches up to 2032: <ul style="list-style-type: none"> • 2 pitches regularised on currently unauthorised site • 12 pitches on existing allocated site • 19 pitches exported through Duty to Cooperate 	<ul style="list-style-type: none"> • No shortfall against Wolverhampton gypsy and traveller pitch need up to 2032

⁴⁸ RRR Consultancy (2022) Black Country Gypsy and Traveller Accommodation Assessment. Final Report, April 2022. Available at: <https://www.wolverhampton.gov.uk/sites/default/files/2024-02/Black%20Country%20Gypsy%20and%20Traveller%20Accommodation%20Assessment%202022.pdf> [Date accessed: 27/09/24]

⁴⁹ RRR Consultancy (2023) Wolverhampton Accommodation Needs 2021-2042 – revised October 2023. Available at: <https://www.wolverhampton.gov.uk/sites/default/files/2024-02/Wolverhampton%20Gypsy%20and%20Traveller%20Accommodation%20Need%20figures%20to%202042.pdf> [Date accessed: 27/09/24]

⁵⁰ Wolverhampton City Council (2014) Stafford Road Corridor Area Action Plan 2013 – 2026. Available at: https://www.wolverhampton.gov.uk/sites/default/files/2022-02/stafford_road_corridor_aap_adopted_version_0.pdf [Date accessed: 24/09/24]

- 5.4.7 **Table 5.5** summarises the SA findings. The assessments are presented in full within The Regulation 18 Issues and Preferred Options SA Report⁵¹.
- 5.4.8 As both proposed options for Gypsy and Traveller growth relate to the same two sites within Wolverhampton itself, Options G1 and G2 perform similarly overall as shown in **Table 5.5**. However, across several objectives the two options do perform slightly differently as Option G1 does not meet the identified Gypsy and Traveller need whereas Option G2 does, through exporting a proportion of growth to neighbouring authorities.
- 5.4.9 Both options would give rise to potential adverse effects in terms of the local landscape character (SA Objective 2), biodiversity (SA Objective 3), climate change mitigation (SA Objective 5), natural resources (SA Objective 6), pollution (SA Objective 7), and waste (SA Objective 8). Negative impacts could also be expected in regard to the surface water flood risk (SA Objective 4) present on the existing allocated site, without intervention.
- 5.4.10 There is some uncertainty regarding the effects of the proposed development on climate change mitigation (SA Objective 4) owing to uncertainty in the scale and nature of development involved, and in terms of equality (SA Objective 11) which is difficult to determine without further site-specific information.
- 5.4.11 Overall, the proposed introduction of a total of 14 pitches under Option G1, and 33 pitches under Option G2, means that Option G2 would be likely to have a major positive impact against SA Objective 10 (housing) in comparison to Option G1 which is identified as having a minor positive impact. Option G2 would be the favourable option of the two as it would meet the identified 5-year supply of Gypsy and Traveller pitches for Wolverhampton; however, this option is reliant upon exporting 19 pitches to neighbouring authorities. The exported growth of small-scale Gypsy and Traveller pitches would be unlikely to cause significant adverse effects, although uncertainty remains on the likely effects of exported pitches.

Table 5.5: Impact matrix of the two Gypsy and Traveller growth options (extracted from the R18 SA)

	SA1	SA2	SA3	SA4	SA5	SA6	SA7	SA8	SA9	SA10	SA11	SA12	SA13	SA14
Gypsy and Traveller Growth Option	Cultural Heritage	Landscape	Biodiversity	CC Mitigation	CC Adaptation	Natural Resources	Pollution	Waste	Transport	Housing	Equality	Health	Economy	Education
G1	0	-	-	+/-	-	-	-	-	+	+	+/-	+	++	+
G2	0	-	-	+/-	-	-	-	-	+	++	+/-	+	++	+

Selection and rejection of Gypsy and Traveller growth options

Comment from Council: Considering the pitch need evidence and the SA findings, CWC concluded that “*The Preferred Option G2 is the only one of the two options which has the potential to provide the required 5 year supply of gypsy and traveller pitches for Wolverhampton and also meet national guidance on sustainable development*”.

⁵¹Lepus Consulting (2024) Sustainability Appraisal of the Wolverhampton Local Plan: Regulation 18 Issues and Preferred Options, January 2024. Available at: <https://www.wolverhampton.gov.uk/planning/planning-policies/wolverhampton-local-plan/evidence-plan-preparation-documents> [Date accessed: 03/09/24]

5.5 Employment growth options

5.5.1 Employment growth options are high-level options for the scale and distribution of employment land to be delivered through the WLP.

5.5.2 Wolverhampton is located within the Black Country Functional Economic Market Area (FEMA) which also covers the local authorities of Dudley, Sandwell and Walsall.

5.5.3 CWC identified three employment growth options during the Regulation 18 consultation stage. These have subsequently been updated as part of the current stage of plan-making: Regulation 19. Identification of options was influenced by several factors including: current employment land supply, employment land and employment land supply that could be delivered through DtC by neighbouring authorities, and available evidence base information, primarily the Black Country Economic Development Needs Assessment (EDNA).

Appraisal of employment growth options at Regulation 18 (January 2024)

5.5.4 Three employment growth options were identified by CWC and assessed within the Regulation 18 Issues and Preferred Options SA Report⁵², as shown in **Table 5.6**. These options included distributions of employment land across existing allocations taking into account the 47.4ha baseline supply figure that was identified at the time, proposed new sites, and potential to export growth through the DtC.

5.5.5 The options assessed at the Regulation 18 stage were based on employment land need figures derived from the Black Country EDNA (2023)⁵³, which demonstrated a need for 116ha of employment land within Wolverhampton up to 2041, against an employment land supply of 47.4ha. Options E1 and E2 failed to meet the identified employment land need at the time of their evaluation, whilst Option H3 met the identified need.

Table 5.6: *Wolverhampton employment growth options identified by CWC at the Regulation 18 stage*

Option	Description of employment option	CWC assessment of option
Option E1	Carry forward existing employment allocations: <ul style="list-style-type: none"> 47.4 ha on existing employment land supply in urban area (including completions since 2020). 	<ul style="list-style-type: none"> Shortfall of 68.6 ha against employment land need for Wolverhampton up to 2041 Shortfall of employment land across the Black Country FEMA as a whole. Sustainable pattern of development
Option E2	Carry forward existing employment allocations and make new employment allocations in locations suitable for employment use and with good transport access: <ul style="list-style-type: none"> 47.4 ha on existing employment land supply in urban area 15.3 ha on new allocations 	<ul style="list-style-type: none"> Shortfall of 53.3 ha against employment land need for Wolverhampton up to 2041 Shortfall of employment land across the Black Country FEMA as a whole. Sustainable pattern of development
Option E3	Carry forward existing employment allocations and make new employment allocations in locations suitable for	<ul style="list-style-type: none"> All of employment land need for Wolverhampton up to 2041 met.

⁵² Lepus Consulting (2024) Sustainability Appraisal of the Wolverhampton Local Plan: Regulation 18 Issues and Preferred Options, January 2024. Available at: <https://www.wolverhampton.gov.uk/planning/planning-policies/wolverhampton-local-plan/evidence-plan-preparation-documents> [Date accessed: 03/09/24]

⁵³ Warwick Economics and Development (2023) Black Country Economic Development Needs Assessment 2020 to 2041. October 2023. Available at: <https://www.wolverhampton.gov.uk/sites/default/files/2024-02/Black%20Country%20Employment%20Land%20Needs%20Assessment%20Update%202023.pdf> [Date accessed: 25/09/24]

Option	Description of employment option	CWC assessment of option
	employment use and with good transport access, and export remaining employment land need to neighbouring authorities: <ul style="list-style-type: none"> • 47.4 ha on existing employment land supply in urban area • 15.3 ha on new allocations • 53.3 ha exported through Duty to Cooperate 	<ul style="list-style-type: none"> • Sufficient offers from neighbouring authorities which have a strong relationship with Wolverhampton • Contributions from neighbouring areas are available to address employment land need across the Black Country FEMA as a whole. • Sustainable pattern of development

Appraisal of employment growth options at Regulation 19 (this report)

- 5.5.6 The Black Country EDNA update (2024)⁵⁴ identified a residual need for an additional 149ha of land for employment development in Wolverhampton over the Plan period to 2042.
- 5.5.7 As of April 2024, existing Local Plan allocations proposed to be carried forward into the WLP and other sites with planning permission for employment development total 33.65ha (30.25ha on existing allocations and 3.4ha on other sites with planning permission). There have been 22.6ha of completions during 2020-24, reducing residual need to 126.4ha.
- 5.5.8 The three options for employment growth as identified by CWC at the Regulation 18 stage have been updated to take account of the latest evidence and are based on the updated Plan period of 2024–2042. The three updated employment growth options identified by CWC at Regulation 19 are presented within **Table 5.7**. The full assessments of the updated employment growth options can be found in **Appendix D**.
- 5.5.9 The broad distribution of growth under the three options, and the overall conclusions for the Regulation 19 employment growth options, remain unchanged from Regulation 18.

Table 5.7: Wolverhampton employment growth options identified by CWC at the Regulation 19 stage

Option	Description of employment option	CWC assessment of option
Option E1	Carry forward existing employment allocations: <ul style="list-style-type: none"> • 33.65 ha on existing employment land supply in urban area. 	<ul style="list-style-type: none"> • Shortfall of 92.75 ha against employment land need for Wolverhampton up to 2042 • Shortfall of employment land across the Black Country FEMA as a whole. • Sustainable pattern of development
Option E2	Carry forward existing employment allocations and make new employment allocations in locations suitable for employment use and with good transport access: <ul style="list-style-type: none"> • 33.65 ha on existing employment land supply in urban area • 9.25 ha on new allocations 	<ul style="list-style-type: none"> • Shortfall of 83.5 ha against employment land need for Wolverhampton up to 2042 • Shortfall of employment land across the Black Country FEMA as a whole. • Sustainable pattern of development
Option E3	Carry forward existing employment allocations and make new employment allocations in locations suitable for employment use and with good transport access, and explore remaining employment land need to neighbouring authorities: <ul style="list-style-type: none"> • 33.65 ha on existing employment land supply in urban area 	<ul style="list-style-type: none"> • All of employment land need for Wolverhampton up to 2042 met. • Sustainable pattern of development • Existing and potential contribution offers available from neighbouring authorities which have a strong relationship with Wolverhampton

⁵⁴ Warwick Economics and Development (2024) Black Country Economic Development Needs Assessment

Option	Description of employment option	CWC assessment of option
	<ul style="list-style-type: none"> • 9.25 ha on new allocations • 83.5 ha exported through Duty to Cooperate 	<ul style="list-style-type: none"> • Existing and potential contribution offers available from neighbouring areas to address employment land need across the Black Country FEMA as a whole.

5.5.10 **Table 5.8** summarises the SA findings. The assessments are presented in full within **Appendix D**.

5.5.11 As Options E1 and E2 have a similar urban focus and both fail to meet the employment land need for Wolverhampton, resulting in 33.65ha and 42.9ha of employment land respectively, the overall identified impacts against the SA Objectives are similar, as shown in **Table 5.8**.

5.5.12 All three options would locate new development in central areas of Wolverhampton where there is generally good access via existing transport infrastructure, however Option E3 is the only option that would satisfy Wolverhampton’s identified employment need (although reliant on DtC to achieve this). As a result, a major positive impact has been identified for Option E3 under SA Objective 14 (economy), and there may be greater potential than the other options to achieve positive impacts on equality (SA Objective 11) due to the employment need being met, although the overall effect is uncertain.

5.5.13 On the other hand, Options E1 and E2 could potentially lead to minor negative impacts on pollution (SA Objective 7), in comparison to a major negative impact identified for Option E3, given that less development would take place in total under Options E1 and E2. However, all options would also give rise to potential adverse effects in terms of increasing threats and pressures to local biodiversity assets (SA Objective 3), including the canal network, as well as potentially locating some employment sites in proximity to areas of flood risk (SA Objective 5).

5.5.14 The options are unlikely to significantly affect natural resources (SA Objective 6), owing to a large proportion of development being located within existing urban areas with potential for efficient use of land including brownfield development, although there is some uncertainty in the location of exported growth under Option E3. There is unlikely to be a significant effect from any employment option on housing provision (SA Objective 10).

5.5.15 The effects of the proposed development under any option on climate change mitigation (SA Objective 4) and waste (SA Objective 8) are uncertain, owing to the unknown scale and nature of employment development involved. Furthermore, without knowledge of the specific site proposals and the nature of the employment land to be delivered, it is difficult to determine overall effects on landscape and townscape character (SA Objective 2) and cultural heritage (SA Objective 1) as the growth could give rise to positive or negative effects depending on these factors.

5.5.16 Overall, whilst Option E1 would deliver the smallest quantum of employment growth and could therefore give rise to the least adverse effects against several SA Objectives, there is very little separating any of the three options in terms of growth within Wolverhampton itself. Given that Option E3 would meet Wolverhampton’s employment needs within the FEMA, and is likely to provide a greater range of local employment opportunities, this option could be identified as the best performing of the three; however, CWC would have little control as to the location of exported growth and there may be increased potential for adverse effects on some receptors.

Table 5.8: Impact matrix of the three employment growth options (extracted from Appendix D)

Employment Growth Option	SA1	SA2	SA3	SA4	SA5	SA6	SA7	SA8	SA9	SA10	SA11	SA12	SA13	SA14
	Cultural Heritage	Landscape	Biodiversity	CC Mitigation	CC Adaptation	Natural Resources	Pollution	Waste	Transport	Housing	Equality	Health	Economy	Education
E1	+/-	+/-	-	+/-	-	0	-	+/-	+	0	-	0	+	+
E2	+/-	+/-	-	+/-	-	0	-	+/-	+	0	-	0	+	+
E3	+/-	+/-	-	+/-	-	0	--	+/-	+	0	+/-	0	++	+

Selection and rejection of employment growth options

Comment from Council: Considering the employment evidence and the SA findings, CWC concluded that “*The Preferred Option E3 is the only one of the three growth options which has the potential to meet employment land needs for Wolverhampton, allow Duty to Cooperate requirements to be met for the Black Country FEMA, and meet national guidance on sustainable development*”.

5.6 Spatial options

5.6.1 The spatial options are intrinsically linked to the housing and employment growth options for Wolverhampton, owing to the finite amount of land available for development. The WLP spatial strategy will dictate broadly where new growth will be located in Wolverhampton for the Plan period to 2042.

5.6.2 As outlined in the Issues and Preferred Options consultation document, within Wolverhampton there are limited options available to address the housing and employment growth requirements. The WLP cannot provide sufficient homes to meet all of the housing need, and so there is a reliance on exporting unmet housing need through the DtC.

5.6.3 Seven options for the spatial strategy have been identified by CWC (see **Table 5.9**). These options incorporate elements of the housing and employment growth options as set out in **sections 5.3** and **5.5** above, but provide more detail regarding options for the broad spatial distribution of growth as well as some more thematic approaches for consideration.

Table 5.9: Wolverhampton spatial options identified by CWC

Option	Description of spatial option	CWC assessment of option
Option A	“Business as Usual” – retain current housing and employment allocations in urban area and protect green belt.	<ul style="list-style-type: none"> As for Option H1 As for Option E1
Option B	Employment-Led - reconfigure uses in the urban area to promote local employment and mixed use; retain and intensify employment land and protect green belt.	<ul style="list-style-type: none"> As for Option H1 but with larger shortfall against housing need As for Options E2 & E3
Option C	Market-Led – only allocate housing in high demand areas and employment land in most attractive commercial locations	<ul style="list-style-type: none"> As for Option H1 but with larger shortfall against housing need As for Options E2 & E3 but without sites in less attractive commercial locations and therefore larger shortfall against employment land need

Option	Description of spatial option	CWC assessment of option
Option D	Garden Village / Health Promotion – protect all publicly accessible open space; provide lower density, mixed use housing developments with more on-site open space and residential services	<ul style="list-style-type: none"> As for Option H1 but with larger shortfall against housing need As for Options E2 & E3 but with larger shortfall against employment land need
Option E	Minimise Climate Change Impacts – only develop housing in locations with highest sustainable transport access to residential services, and only locate new employment land where good public transport access.	<ul style="list-style-type: none"> As for Options H2 & H3 but with larger shortfall against housing need As for Options E2 & E3 but without sites where not good public transport access and therefore larger shortfall against employment land need
Option F	Infrastructure and Regeneration-Led – Focus development in the central, north and east urban area of Wolverhampton, where development and infrastructure opportunities are concentrated and regeneration benefits can be maximised.	<ul style="list-style-type: none"> As for Options H2 & H3 but with larger shortfall against housing need As for Options E2 & E3
Option G	Balanced and Sustainable Growth – Focus development in the central, north and east parts of Wolverhampton, to minimise climate change impacts, make best use of existing infrastructure and support urban regeneration. Key features: increased housing density in the most accessible locations; more housing in Wolverhampton City Centre.	<ul style="list-style-type: none"> As for Option H2 & H3 As for Options E2 & E3

5.6.4 **Table 5.10** summarises the SA findings. The assessments are presented in full within the Regulation 18 Issues and Preferred Options SA Report⁵⁵.

5.6.5 It is difficult to determine an overall best performing spatial option, as the performance of each option varies depending on the SA Objective in question. Generally, options which perform better against meeting development needs would also put the most pressure on environmental resources and social facilities. The subsequent paragraphs identify and explain which options perform best and which options perform worst against each SA Objective.

5.6.6 Options A and B performed joint best against SA Objectives 3 (biodiversity), 5 (climate change adaptation) and 6 (natural resources) due to the protection of previously undeveloped land. Option B also performed best against SA Objective 13 (economy) as it proposes an employment-led strategy.

5.6.7 Option D performed best against SA Objectives 7 (pollution) and 12 (health) owing to the focus on ‘Garden Village’ principles including the protection of existing open spaces and integration of new open spaces within new developments.

5.6.8 Option E performed best against SA Objectives 4 (climate change mitigation), 9 (transport and accessibility) and 14 (education), as this option would direct new development towards areas with the best sustainable transport access.

5.6.9 Option F performed best against SA Objectives 1 (cultural heritage) and 2 (landscape) due to its focus on urban regeneration, and SA Objective 8 (waste) due to its emphasis on concentrating development where infrastructure provision is best.

⁵⁵ Lepus Consulting (2024) Sustainability Appraisal of the Wolverhampton Local Plan: Regulation 18 Issues and Preferred Options, January 2024. Available at: <https://www.wolverhampton.gov.uk/planning/planning-policies/wolverhampton-local-plan/evidence-plan-preparation-documents> [Date accessed: 03/09/24]

- 5.6.10 Option G performed best against SA Objectives 10 (housing) and 11 (equality), because the balanced approach would meet identified housing and employment needs, and aims to direct new development towards accessible areas, whilst also supporting urban regeneration.
- 5.6.11 The worst performing option overall could be identified as Option C, as the option was not identified to perform best against any SA Objectives.
- 5.6.12 Overall, Option B was identified to perform the best (or joint best) against the most SA Objectives; however, this strategy would lead to a housing shortfall. Option G is the only option that would satisfy both the identified housing and employment needs, whilst also attempting to strike a balance between retaining valuable environmental assets and prioritising development in more accessible locations which facilitate sustainable transport, and as such could be seen as the most sustainable option on the whole and leading to more significant benefits for housing and the economy compared to the other options.

Table 5.10: Impact matrix of the seven spatial options

	SA1	SA2	SA3	SA4	SA5	SA6	SA7	SA8	SA9	SA10	SA11	SA12	SA13	SA14
Spatial Option	Cultural Heritage	Landscape	Biodiversity	CC Mitigation	CC Adaptation	Natural Resources	Pollution	Waste	Transport	Housing	Equality	Health	Economy	Education
A	0	-	0	+	+	+	-	-	+	+	-	-	+	+
B	0	0	0	+	+	+	-	-	+	+	-	-	++	+
C	-	-	-	-	-	-	-	-	-	+	-	0	+	-
D	-	0	0	-	0	-	-	-	0	+	0	+	+	0
E	0	-	0	+	0	0	-	-	++	+	-	-	+	++
F	0	+	0	+	0	0	-	-	+	+	+	-	++	+
G	0	+	0	+	0	0	-	-	+	++	+	-	++	++

Selection and rejection of spatial options

Comment from Council: Considering the SA findings and other evidence base information, CWC concluded that “*The Preferred Option G: Balance and Sustainable Growth effectively forms a balance between the other six options and is the option which has the most potential to: provide sufficient land to meet Wolverhampton housing needs (both within Wolverhampton and in neighbouring authorities); provide sufficient employment land within Wolverhampton to meet employment land needs for Wolverhampton and allow Duty to Cooperate requirements to be met for the Black Country FEMA; and meet national guidance on sustainable development*”.

5.7 Reasonable alternatives: development sites

Evaluation of reasonable alternative sites at Regulation 18 (January 2024)

5.7.1 The identification, description and evaluation of development sites has taken place throughout the plan making process at different stages. The Black Country Call for Sites request first opened in July 2017 and re-opened from 9th July – 20th August 2020⁵⁶. Since then, CWC has carried out annual SHLAAs of sites which have the potential to accommodate new housing development. The Wolverhampton Employment Land Supply technical paper⁵⁷ sets out up to date information on land availability with potential to accommodate employment development.

5.7.2 A total of 48 sites were identified by CWC as reasonable alternatives to be assessed as part of the Regulation 18 SA, informed by the Call for Sites process and other studies undertaken as part of the evidence base for the WLP, and previously for the ceased BCP. This includes 'carried forward' housing and employment sites, which have previously been previously allocated in the adopted Development Plans. The 48 reasonable alternative sites included:

- 22 sites proposed for residential use;
- 25 sites proposed for employment use; and
- One site proposed for Gypsy and Traveller use.

5.7.3 The pre-mitigation assessment of the 48 reasonable alternative sites demonstrated a range of sustainability impacts. The full assessment narrative was presented within Appendix C of the Regulation 18 Issues and Preferred Options SA Report⁵⁸.

5.7.4 Positive impacts were identified for many of the reasonable alternative sites in terms of access to social infrastructure, due to their location in areas where accessibility modelling data indicates good sustainable access to local shops, healthcare, schools, transport and employment opportunities. Identified positive impacts also included the impact of reasonable alternative sites on the provision of housing and employment floorspace, contributing to the identified needs. The majority of reasonable alternative sites are located in Flood Zone 1 away from fluvial flood risk, and many sites comprise previously developed land leading to positive effects in terms of encouraging an efficient use of natural resources.

⁵⁶ Black Country Plan (2020). Call for Sites. Available at <https://blackcountryplan.dudley.gov.uk/t2/p3/> [Date accessed: 24/09/24].

⁵⁷ Employment land supply technical paper. 2023 update. Available at: <https://www.wolverhampton.gov.uk/sites/default/files/2024-02/Black%20Country%20Employment%20Land%20Supply%20Technical%20Paper%20Update%202023.pdf> [Date accessed: 25/09/24]

⁵⁸ Lepus Consulting (2024) Sustainability Appraisal of the Wolverhampton Local Plan: Regulation 18 Issues and Preferred Options, January 2024. Available at: <https://www.wolverhampton.gov.uk/planning/planning-policies/wolverhampton-local-plan/evidence-plan-preparation-documents> [Date accessed: 03/09/24]

5.7.5 Identified negative impacts included the potential for small-scale loss of soil resources at some sites, impacts on local biodiversity designations, changes to local views, possible alteration of the character or setting of cultural heritage assets, and increased pollution and waste associated with large scale development. The entirety of Wolverhampton is designated as an AQMA, and several sites are located in close proximity to main roads, and as such the proposed development could potentially expose site end users to higher levels of transport-associated air pollution. Identified negative impacts also included the location of reasonable alternative sites in regard to surface water flood risk, where a large proportion of sites are located on areas of vulnerable to surface water flooding.

Evaluation of reasonable alternative sites within the Regulation 19 SA Report (2024)

5.7.6 At the Regulation 19 stage of plan making, there are now a total of 40 reasonable alternative sites, including:

- 24 sites proposed for residential use;
- 15 sites proposed for employment use; and
- One site proposed for Gypsy and Traveller use.

5.7.7 Following the Regulation 18 consultation in early 2024, CWC identified a further six reasonable alternative sites (Sites H7, H18, H24a, H24b, H24c and H24d all for residential use) and provided updated information for five reasonable alternative sites assessed at Regulation 18 (Sites H1, H3, H4, E17 and E7). Some 14 reasonable alternative sites identified at the Regulation 18 stage have since been removed from the SA, having since been built out or granted planning permission.

5.7.8 The SA identified a range of positive and negative adverse effects on sustainable development arising from the proposed development of the 40 reasonable alternative sites. Potential adverse effects identified within the pre-mitigation assessment process for all 40 reasonable alternative sites are discussed within **Appendix F**.

5.7.9 All reasonable alternative 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 2018⁵⁹) of presenting assessment results before and after mitigation has been applied. Evaluating policies in the SA enables scrutiny of how effective the policies are as mitigation tools.

5.7.10 Mitigation, using the emerging WLP policies (see **Appendix G** for the SA evaluation of policies), has been applied to the SA results for each reasonable alternative site and presented in **Appendix H**.

5.7.11 Following the application of policy mitigation, it was identified that many of the adverse effects will likely be reduced or mitigated, including:

⁵⁹ 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-rtpi/2018/january/strategic-environmental-assessment-seasa-for-land-use-plans/#:~:text=The%20advice%20outlines%20four%20tips,and%20not%20something%20else%3B%20Focus> [Date accessed: 04/09/24]

- Provision of housing and employment growth to support identified needs;
- Delivery of well-designed new development that conserves and enhances landscape character, local distinctiveness and the historic environment;
- Protection of nature conservation designations, support for nature recovery and increased GI coverage that will contribute to climate change resilience;
- Recognising and seeking to alleviate the adverse effects of poor air quality through transport interventions;
- Addressing flood risk, promoting sustainable water management, and aiming to protect and improve water quality;
- Encouraging a sustainable development pattern that makes best use of previously developed land and supports urban regeneration; and
- Improving access via sustainable and active travel modes to services and facilities, including healthcare, jobs and schools, to address accessibility gaps and reduce inequalities.

5.8 Selection and rejection of sites

5.8.1 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 CWC's role to use the SA findings, alongside other evidence base material, to decide which sites to 'select' for allocation in the WLP and which to 'reject' from further consideration.

5.8.2 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 WLP.

5.8.3 **Appendix I** sets out the sets out the outline reasons for selection and rejection of each reasonable alternative site considered throughout the SA process, provided by CWC.

6 The preferred approach

6.1 WLP policies

6.1.1 The WLP is composed primarily of 55 policies, which will be anticipated to help ensure that potential adverse impacts on sustainability identified as a result of the development proposed within the WLP are avoided, mitigated or subject to compensatory measures wherever possible. The policies will also provide development proposals with relevant supporting information to ensure that the impacts of development can be appropriately factored into land use decision-making processes.

6.1.2 The 55 WLP policies are listed in **Table 6.1** and have been assessed in **Appendix G** which includes the assessment of the spatial strategy policy for the WLP.

Table 6.1: Wolverhampton Local Plan policies

Policy Reference	Policy Name
	Spatial Strategy
CSP1	Spatial Strategy
CSP2	Placemaking: Achieving Well Designed places
	Infrastructure and Delivery
DEL1	Infrastructure Provision
DEL2	Balance Between Employment Land and Housing
DEL3	Promotion of Fibre to the Premises and 5G Networks
	Health and Wellbeing
HW1	Health and Wellbeing
HW2	Health impact Assessments
HW3	Healthcare Facilities
	Housing
HOU1	Delivering Sustainable Housing Growth
HOU2	Housing Density, Type and Accessibility
HOU3	Delivering Affordable, Accessible and Self Build/ Custom Build Housing
HOU4	Housing for People with Specific Needs
HOU5	Accommodation for Gypsies and Travellers and Travelling Showpeople
HOU6	Education Facilities
HOU7	Houses in Multiple Occupation
	Employment
EMP1	Providing for Economic Growth and Jobs
EMP2	Strategic Employment Areas
EMP3	Local Employment Areas
EMP4	Other Employment Sites
EMP5	Improving Access to the Labour Market
EMP6	Cultural Facilities and the Visitor Economy
	The Wolverhampton Centres
CEN1	Centres and Centre Uses

Policy Reference	Policy Name
CEN2	Wolverhampton's Centres
CEN3	Provision of Local Facilities
CEN4	Edge-of-Centre and Out-of-Centre Development
	Transport
TRAN1	Priorities for the Development of the Transport Network
TRAN2	Safeguarding the Development of the Key Route Network
TRAN3	Managing Transport impacts of New Development
TRAN4	The Efficient Movement of Freight
TRAN5	Creating Coherent Networks for Cycling and for Walking
TRAN6	Influencing the Demand for Travel and Travel Choices
TRAN7	Parking Management
TRAN8	Planning for Low Emission Vehicles
	Environment and Climate Change
ENV1	Nature Conservation
ENV2	Development Affecting Cannock Chase Special Area of Conservation
ENV3	Nature Recovery and Biodiversity Net Gain
ENV4	Trees and Hedgerows
ENV5	Historic Character and Local Distinctiveness
ENV6	Geodiversity and the Black Country UNESCO Global Geopark
ENV7	Canal Network
ENV8	Open Space and Recreation
ENV9	Playing Fields and Sports Facilities
ENV10	High Quality Design
ENV11	Air Quality
ENV12	Flood Risk and Water Quality
ENV13	Sustainable Drainage Systems and Surface Water Management
ENV14	Energy and Sustainable Design
	Waste
W1	Waste Infrastructure- Future Requirements
W2	Safeguarding Waste Sites
W3	Locational Requirements for New Waste Facilities
W4	Key Considerations for Waste Developments
W5	Resource Management and New Development
	Minerals
MIN1	Mineral Production- Requirements
MIN2	Safeguarding Minerals
MIN3	Key Considerations for Mineral Developments

- 6.1.3 The WLP policies will be expected to ensure that potential adverse impacts on sustainability identified as a result of the development proposed within the WLP are avoided, mitigated or subject to compensatory measures wherever possible. The policies will also provide any potential development proposals with relevant supporting information to ensure that any impacts from development can be appropriately factored into decision-making processes.
- 6.1.4 For many of the WLP policies, the assessments have resulted in negligible, minor positive or major positive impacts. Negligible impacts were identified where the policy was not anticipated to cause any adverse impact on the SA Objectives, including on any of the receptors set out in the SA Framework (see **Appendix B**).
- 6.1.5 There has however been a greater range of sustainability effects identified for policies which have the potential to introduce new development in the Plan area, particularly with regard the policies relating to housing and the economy, as well as Policy CSP1 which sets out the direction of growth for Wolverhampton. As such, a range of impacts, including minor negative impacts, have been identified for SA Objectives 4 (climate change mitigation), 7 (pollution), 8 (waste) and 12 (health).
- 6.1.6 There is some uncertainty in the evaluation of policies where the location, scale and design of potential new development that might occur is unknown, in relation to housing and employment policies, as well as Policy CEN1 ‘centres and centre uses’ and Policy W3 ‘locational considerations for new waste facilities’.
- 6.1.7 The impact matrix for the policy assessments is presented in **Table 6.2**. These impacts should be read in conjunction with the assessment text narratives in **Appendix G**.

Table 6.2: Summary of policy assessments (extracted from Appendix G)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Policy Ref	Cultural Heritage	Landscape	Biodiversity	CC Mitigation	CC Adaptation	Natural Resources	Pollution	Waste	Transport	Housing	Equality	Health	Economy	Education
CSP1	+	+	+	+	+	0	-	-	++	++	+	+	++	+
CSP2	++	++	+	+	+	0	+	0	+	+	+	+	+	0
DEL1	0	+	+	+	+	0	+	+	+	+	+	+	+	+
DEL2	0	0	0	0	0	+	0	0	+	+	0	0	+	0
DEL3	0	0	0	+	0	0	0	0	+	0	+	0	+	0
HW1	0	+	0	0	0	0	0	0	0	0	+	++	0	0
HW2	0	0	0	0	0	0	0	0	0	0	+	++	0	0
HW3	0	0	0	+	0	0	+	0	+	0	+	++	0	0
HOU1	0	0	0	-	0	+	-	-	0	++	+	0	0	0
HOU2	0	0	0	+	0	+	+	0	+	+	+	+	0	0
HOU3	0	0	0	0	0	0	0	0	0	+	+	+	0	0
HOU4	0	0	0	0	0	0	0	0	+	+	+	+	0	0
HOU5	0	+	+/-	+/-	+/-	+	-	-	+	+	+	+/-	+/-	+
HOU6	+	0	0	+	0	0	+	0	+	0	+	0	+	++
HOU7	0	0	0	0	0	0	0	0	+	+	+	+	0	0
EMP1	+/-	0	+/-	0	+/-	+	-	-	0	0	+	0	++	+

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Policy Ref	Cultural Heritage	Landscape	Biodiversity	CC Mitigation	CC Adaptation	Natural Resources	Pollution	Waste	Transport	Housing	Equality	Health	Economy	Education
EMP2	+/-	0	0	-	0	+	-	-	+	0	+	-	+	+
EMP3	+/-	0	+/-	+/-	+/-	+	-	+	+	0	+	0	+	+
EMP4	+/-	0	+/-	-	+/-	+	-	-	+	+	+	0	+	+
EMP5	0	0	0	0	0	0	0	0	+	0	+	+	+	+
EMP6	+	+	+	0	0	0	0	0	+	0	+	0	+	+
CEN1	0	0	+/-	+/-	+/-	+	+/-	+/-	+	+	+	+	+	0
CEN2	+	+	+	+	+	+	+	0	++	+	+	+	++	+
CEN3	0	0	0	+	0	0	+	0	+	0	+	+	+	+
CEN4	0	0	0	+	0	0	+	0	+	0	0	+	+	0
TRAN1	0	0	0	+	0	0	+	0	++	0	0	+	0	0
TRAN2	0	0	0	0	0	0	0	0	+	0	0	0	0	0
TRAN3	0	0	0	+	0	0	+	0	+	0	0	0	0	0
TRAN4	0	0	-	0	0	0	0	0	+	0	0	0	0	0
TRAN5	0	0	0	+	0	0	+	0	+	0	0	+	0	0
TRAN6	0	0	0	+	0	0	+	0	+	0	0	+	0	0
TRAN7	0	0	0	+	0	0	+	0	+	0	0	+	+	0
TRAN8	0	0	0	+	0	0	+	0	+	0	0	0	0	0
ENV1	0	+	++	+	+	0	+	0	0	0	0	+	0	0
ENV2	0	0	++	0	0	0	0	0	0	0	0	+	+	0
ENV3	0	+	++	+	+	0	+	0	0	0	0	+	0	0
ENV4	+	+	++	+	++	+	+	0	0	0	0	+	0	0
ENV5	++	+	+	0	0	0	0	0	0	0	+	0	+	0
ENV6	+	+	+	0	0	0	0	0	0	0	0	0	+	+
ENV7	+	+	+	0	0	0	+	0	+	+	0	+	+	0
ENV8	0	+	+	+	+	+	+	0	+	0	+	++	0	0
ENV9	0	+	+	+	+	0	+	0	+	0	+	+	0	0
ENV10	+	++	+	+	+	+	+	0	+	0	+	+	0	0
ENV11	0	0	+	+	0	0	++	0	+	0	0	+	+	0
ENV12	0	0	+	0	++	+	+	0	0	0	0	+	0	0
ENV13	0	+	+	+	++	+	+	0	0	0	0	0	0	0
ENV14	0	0	0	+	+	+	+	0	0	0	+	+	0	0
W1	0	0	0	0	0	+	0	++	0	0	0	0	+	0
W2	0	0	0	0	0	+	0	+	0	0	0	0	0	0
W3	+/-	+/-	+/-	-	+/-	+	-	+	+	0	0	+/-	+	0
W4	0	0	0	0	0	0	0	+	0	0	0	0	0	0
W5	0	0	0	0	0	+	0	++	0	0	0	0	0	0
MIN1	0	0	0	0	0	+	0	0	0	0	0	0	+	0
MIN2	0	0	0	0	0	+	0	0	0	0	0	0	0	0
MIN3	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.2 Assessment of site allocations

- 6.2.1 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 the role of CWC to use the SA findings, alongside other evidence base material, to decide which sites to 'select' for allocation in the WLP and which to 'reject' from further consideration (see **Appendix I** for more details).
- 6.2.2 A total of 39 sites have been selected for allocation in the WLP by CWC (see **Figure 6.1**):
- 23 sites for residential use;
 - 15 sites for employment use; and
 - One Gypsy and Traveller site.
- 6.2.3 As discussed in **Chapter 5**, all reasonable alternative sites were evaluated in the SA process pre-mitigation (see **Appendix F**) and post-mitigation (see **Appendix H**). The SA findings 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 WLP.
- 6.2.4 The post-mitigation SA findings for the sites chosen for allocation by CWC are summarised in **Table 6.3**, illustrating a range of identified sustainability effects identified through the assessment process.
- 6.2.5 The full post-mitigation findings for all reasonable alternative sites considered throughout the SA process, including the sites selected for allocation, are set out in **Appendix H**.

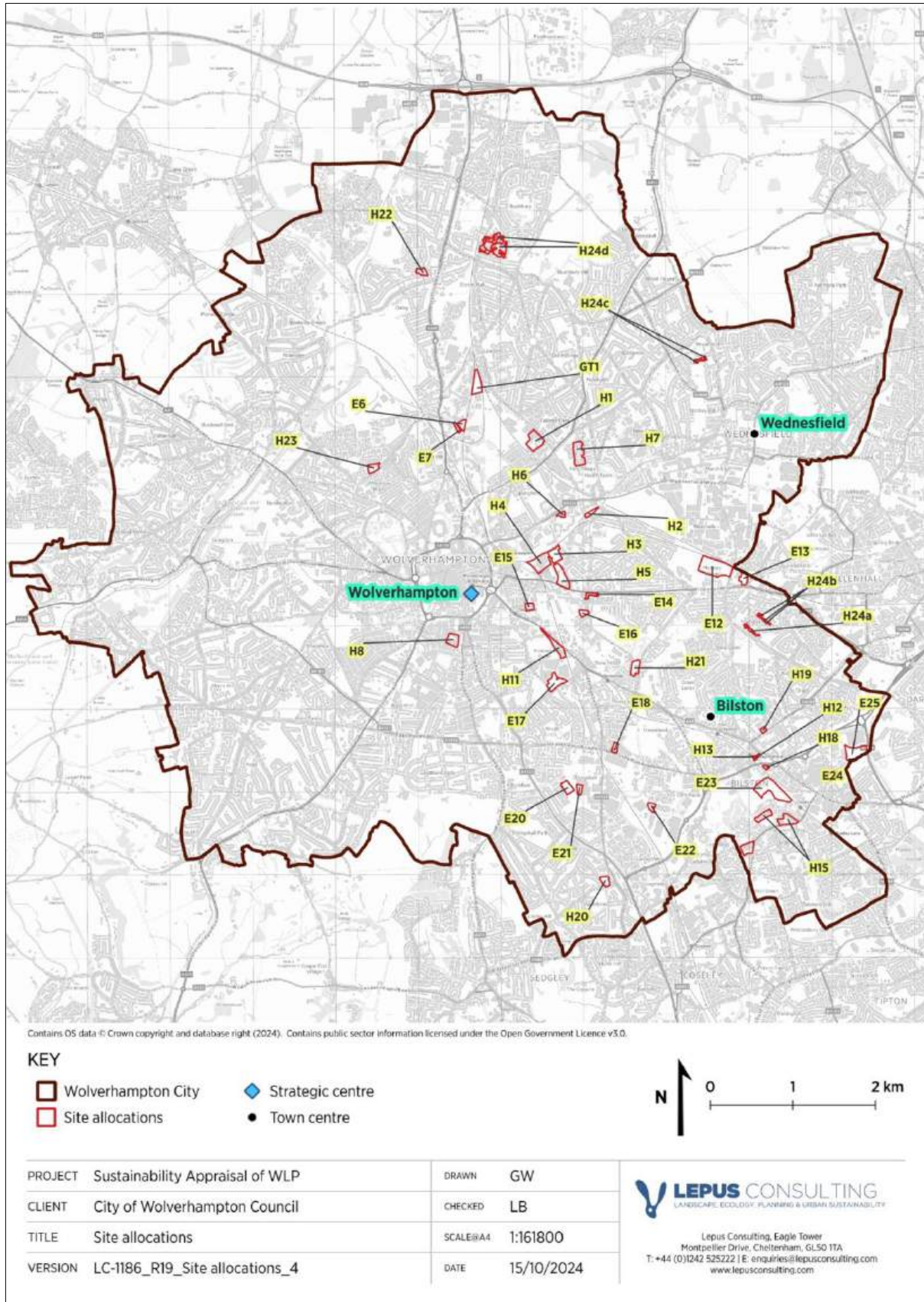


Figure 6.1: Map showing the location of development sites allocated in the WLP

Table 6.3: Summary of post-mitigation site assessments for allocated sites (extracted from **Appendix H**)

Site allocation reference	1 Cultural Heritage	2 Landscape	3 Biodiversity	4 CC Mitigation	5 CC adaptation	6 Natural resources	7 Pollution	8 Waste	9 Transport	10 Housing	11 Equality	12 Health	13 Economy	14 Education
H1	0	+	0	-	+	+	-	0	++	++	0	++	++	++
H2	0	+	-	0	+	-	-	0	++	+	0	++	++	++
H3	0	0	-	-	+	-	-	-	++	++	0	++	++	++
H4	0	+	-	-	+	+	-	-	++	++	0	+	++	++
H5	0	+	-	0	+	+	-	0	+	+	0	++	++	++
H7	0	+	0	+/-	+	+	-	0	++	0	0	++	++	++
H8	0	+	0	-	+	+	-	-	++	++	0	++	++	++
H11	0	+	-	0	+	+	-	0	++	+	0	++	++	++
H12	0	+	0	0	+	-	-	0	++	+	0	++	++	++
H13	0	+	0	0	+	+	-	0	++	+	0	++	++	++
H14	0	+	-	0	+	+	-	0	+	+	0	++	++	++
H15	0	+	-	-	+	+	-	-	++	++	0	++	++	++
H16	0	0	0	0	+	-	-	0	++	++	0	++	++	++
H17	0	+	0	0	+	-	-	0	++	+	0	++	++	++
H18	0	+	0	0	+	-	-	0	++	+	0	++	++	++
H20	0	+	0	0	+	-	-	0	+	+	0	++	++	++
H21	0	+	0	0	0	-	-	0	+	+	0	++	++	++
H22	0	+	0	0	+	-	-	0	++	+	0	++	++	++
H23	0	+	0	0	+	-	-	0	++	+	0	++	++	++
H24a	0	+	0	+/-	0	+	-	0	++	+	0	++	++	++
H24b	0	+	0	+/-	0	-	-	0	++	+	0	+	++	++
H24c	0	+	0	+/-	+	+	-	0	++	+	0	++	++	++
H24d	0	+	0	+/-	+	-	-	0	++	+	0	++	++	++
E6	0	0	0	+/-	+	-	-	+/-	++	0	0	++	++	0
E7	0	0	-	+/-	+	-	-	+/-	++	0	0	++	++	0
E12	0	+	-	+/-	+	-	-	+/-	+	0	0	++	++	0
E13	0	+	0	+/-	+	-	-	+/-	++	0	0	++	++	0
E14	0	+	0	+/-	+	-	-	+/-	+	0	0	++	++	0
E15	0	+	-	+/-	+	+	-	+/-	++	0	0	++	0	0
E16	0	+	0	+/-	+	+	-	+/-	+	0	0	+	++	0
E17	0	0	-	+/-	+	-	-	+/-	+	0	0	++	++	0
E18	0	+	-	+/-	+	+	-	+/-	++	0	0	++	++	0
E20	0	0	-	+/-	+	+	-	+/-	+	0	0	+	++	0
E21	0	+	-	+/-	+	-	-	+/-	+	0	0	+	++	0
E22	0	+	0	+/-	+	-	-	+/-	+	0	0	++	++	0
E23	0	+	0	+/-	0	-	-	+/-	++	0	0	++	++	0
E24	0	+	0	+/-	+	+	-	+/-	++	0	0	++	++	0
E25	0	0	-	+/-	0	-	-	+/-	++	0	0	+	++	0
GT1	0	0	+/-	+/-	+	-	-	+/-	++	+	0	+	++	++

6.3 Site allocation policies

6.3.1 CWC identified a range of development locations which will together support the delivery of 9,330 new homes within the WLP.

6.3.2 A total of 44 site allocation policies have been prepared by CWC and assessed in the SA process. The assessment of site policies has drawn on the findings from the post-mitigation evaluation of reasonable alternative sites as outlined in **Table 6.3** (see full assessments in **Appendix H**). However, the site policy assessments also take account of the site-specific information and mitigation proposed through the site policies for the selected sites, which was not factored into the reasonable alternative site assessments. Eight of the allocated sites have planning permission and have therefore not been assessed as part of the reasonable alternatives site exercise.

6.3.3 For many of the site policies, the assessments have resulted in the identification of further minor positive impacts or a reduction in negative impacts for landscape (SA Objective 2) and biodiversity (SA Objective 3), specifically for policies which introduce requirements for high-quality design across the site and any additional measures such as natural landscaping. The majority of scores across the SA Objectives remained unchanged from the post-mitigation assessments.

6.3.4 The impact matrices for the site policy assessments are presented in **Table 6.4** below. More detailed narrative on the site policy assessments can be found in **Appendix J**.

Table 6.4: Summary of site policy assessments (extracted from **Appendix J**)

Site Policy	1 Cultural Heritage	2 Landscape	3 Biodiversity	4 CC Mitigation	5 CC Adaptation	6 Natural Resources	7 Pollution	8 Waste	9 Transport	10 Housing	11 Equality	12 Health	13 Economy	14 Education
H1	0	+	0	-	+	+	-	0	++	++	0	++	++	++
GT1	0	0	0	+/-	+	-	-	+/-	++	+	0	+	++	++
E1	0	0	0	+/-	+	-	-	+/-	+	0	0	+	++	0
E2	0	0	0	+/-	0	-	-	+/-	++	0	0	++	++	0
E4	0	0	0	+/-	+	-	-	+/-	++	0	0	++	++	0
E6	0	+	0	+/-	+	-	-	+/-	++	0	0	++	++	0
E7	0	+	0	+/-	+	-	-	+/-	++	0	0	++	++	0
E8	0	0	0	+/-	+	-	-	+/-	++	0	0	++	++	0
H2	0	+	0	0	+	-	-	0	++	+	0	++	++	++
H3	0	+	0	-	+	-	-	-	++	++	0	++	++	++
H4	0	+	0	-	+	+	-	-	++	++	0	+	++	++
H5	0	+	0	0	+	+	-	0	+	+	0	++	++	++
H6	0	+	0	0	+	+	-	0	++	+	0	++	++	++
H7	0	+	0	+/-	+	+	-	0	++	0	0	++	++	++
E12	0	+	0	+/-	+	-	-	+/-	+	0	0	++	++	0
E13	0	+	0	+/-	+	-	-	+/-	++	0	0	++	++	0
H8	0	+	0	-	+	+	-	-	++	++	0	++	++	++
H9	0	+	0	0	+	+	-	0	++	++	0	++	++	++
H10	0	+	0	-	+	+	-	-	++	++	0	++	++	++
H11	0	+	0	0	+	+	-	0	++	+	0	++	++	++
H12	0	+	0	0	+	-	-	0	++	+	0	++	++	++
H13	0	+	0	0	+	+	-	0	++	+	0	++	++	++
H14	0	+	0	0	+	+	-	0	+	+	0	++	++	++
H15	0	+	0	-	+	+	-	-	++	++	0	++	++	++
H16	0	0	0	0	+	-	-	0	++	++	0	++	++	++

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Site Policy	Cultural Heritage	Landscape	Biodiversity	CC Mitigation	CC Adaptation	Natural Resources	Pollution	Waste	Transport	Housing	Equality	Health	Economy	Education
H17	0	+	0	0	+	-	-	0	++	+	0	++	++	++
H18	0	+	0	0	+	-	-	0	++	+	0	++	++	++
H19	0	+	0	0	+	-	-	0	++	+	0	++	++	++
E14	0	+	0	+/-	+	-	-	+/-	+	0	0	++	++	0
E15	0	+	0	+/-	+	+	-	+/-	++	0	0	++	0	0
E16	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E17	0	0	0	+/-	+	-	-	+/-	+	0	0	++	++	0
E18	0	+	0	+/-	+	+	-	+/-	++	0	0	++	++	0
E20	0	0	0	+/-	+	+	-	+/-	+	0	0	+	++	0
E21	0	+	0	+/-	+	-	-	+/-	+	0	0	+	++	0
E22	0	+	0	+/-	+	-	-	+/-	+	0	0	++	++	0
E23	0	+	0	+/-	0	-	-	+/-	++	0	0	++	++	0
E24	0	+	0	+/-	+	+	-	+/-	++	0	0	++	++	0
E25	0	0	0	+/-	0	-	-	+/-	++	0	0	+	++	0
H20	0	+	0	0	+	-	-	0	+	+	0	++	++	++
H21	0	+	0	0	0	-	-	0	+	+	0	++	++	++
H22	0	+	0	0	+	-	-	0	++	+	0	++	++	++
H23	0	+	0	0	+	-	-	0	++	+	0	++	++	++
H24	0	+	0	+/-	0	-	-	0	++	+	0	++	++	++

6.4 Whole plan appraisal

6.4.1 The following chapters present an assessment of the likely significant effects associated with the WLP 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**).

6.4.2 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. The cumulative effects assessment is presented in **Chapter 16**.

7 Air

7.1 Baseline

7.1.1 Poor air quality is among the largest environmental risks to public health in the UK. Several objectives have been established in relation to air quality at the European, UK and regional levels seeking to reduce emissions of specific pollutants to minimise adverse effects on health and the environment. Key legislation / PPPs include the Environment Act (2021)⁶⁰ which sets out air quality as a priority area, the Air Quality Plan for NO₂⁶¹ and the Clean Air Strategy⁶².

7.1.2 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 higher in Wolverhampton 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 pollution (2021)⁶³

Region	Fraction of mortality attributable to particulate air pollution
Wolverhampton	5.7%
West Midlands	5.5%
England	5.5%

7.1.3 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^{64,65}.

7.1.4 The entirety of Wolverhampton is designated as an Air Quality Management Area (AQMA), known as ‘Wolverhampton AQMA’, as shown in **Figure 7.1**. The AQMA was declared in 2005, due to exceedances in the national annual mean objectives for nitrogen dioxide (NO₂) and particulate matter (PM₁₀), mostly sourced from road traffic⁶⁶. The adjacent authorities of Dudley, Walsall and Sandwell are also wholly designated as AQMAs.

⁶⁰ Environment Act 2021. Available at: <https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted> [Date accessed: 05/08/24]

⁶¹ DEFRA and DfT (2018) Air quality plan for nitrogen dioxide (NO₂) in UK. Available at: <https://www.gov.uk/government/publications/air-quality-plan-for-nitrogen-dioxide-no2-in-uk-2017> [Date accessed: 05/09/24]

⁶² DEFRA (2019) Clean Air Strategy. Available at: <https://www.gov.uk/government/publications/clean-air-strategy-2019/clean-air-strategy-2019-executive-summary> [Date accessed: 05/09/24]

⁶³ Office for Health Improvement and Disparities (2023) Public Health Profiles: Fraction of mortality attributable to particulate air pollution (new method). Available at: <https://fingertips.phe.org.uk/search/air%20pollution#page/4/gid/1/pat/15/ati/401/are/E08000031/iid/30101/age/230/sex/4/cat/-1/ctp/-1/yr/1/cid/4/tbm/1> [Date accessed: 06/09/24]

⁶⁴ Sala, O. E. *et al.* (2000) Global biodiversity scenarios for the year 2100. *Science*. 287:1770-1774

⁶⁵ Air Pollution Information System (2016) Nitrogen Oxides (NOx). Available at: http://www.apis.ac.uk/overview/pollutants/overview_NOx.htm [Date accessed: 05/09/24]

⁶⁶ Wolverhampton City Council (2012) Air Quality Updating and Screening Assessment for: Wolverhampton City Council. In fulfilment of Part IV of the Environment Act 1995 Local Air Quality Management. Available at: <https://www.wolverhampton.gov.uk/environment-and-climate/pollution/air-pollution> [Date accessed: 10/09/24]

- 7.1.5 As all the proposed development is located within an AQMA, this is likely to lead to adverse impacts on health and may prevent the Council from achieving air quality targets. It is assumed that new development proposals within the Wolverhampton will also result in an increase in traffic and thus could potentially increase traffic-related air pollution. Both existing and future residents would be exposed to this change in air quality.
- 7.1.6 The Wolverhampton Air Quality Management Action Plan⁶⁷ sets out aims for the improvement of air quality across the WLP area in 23 proposed actions, including reducing vehicle emissions, improving public transport, improving the road network, measures to reduce traffic volumes, reducing air pollution from industry, commerce and residential areas and changing levels of travel demand/ promotion of alternative modes of transport.
- 7.1.7 It is widely accepted that the effects of air pollution from road transport decreases with distance from the source of pollution. The Department for Transport (DfT) in their Transport Analysis Guidance consider that, *“beyond 200m from the link centre, the contribution of vehicle emissions to local pollution levels is not significant”*⁶⁸. This statement is supported by Highways England and Natural England based on evidence presented in a number of research papers^{69 70}. Exposure to road transport associated emissions may have long term health impacts.

⁶⁷ Wolverhampton Air Quality Management Action Plan (currently being updated). Available at: <https://www.wolverhampton.gov.uk/environment-and-climate/pollution/air-pollution> [Date accessed: 10/09/24]

⁶⁸ Department for Transport (2019) 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 [Date accessed: 10/09/24]

⁶⁹ Bignal, K., Ashmore, M & Power, S. (2004) The ecological effects of diffuse air pollution from road transport. English Nature Research Report No. 580, Peterborough.

⁷⁰ Ricardo-AEA (2016) The ecological effects of air pollution from road transport: an updated review. Natural England Commissioned Report No. 199.

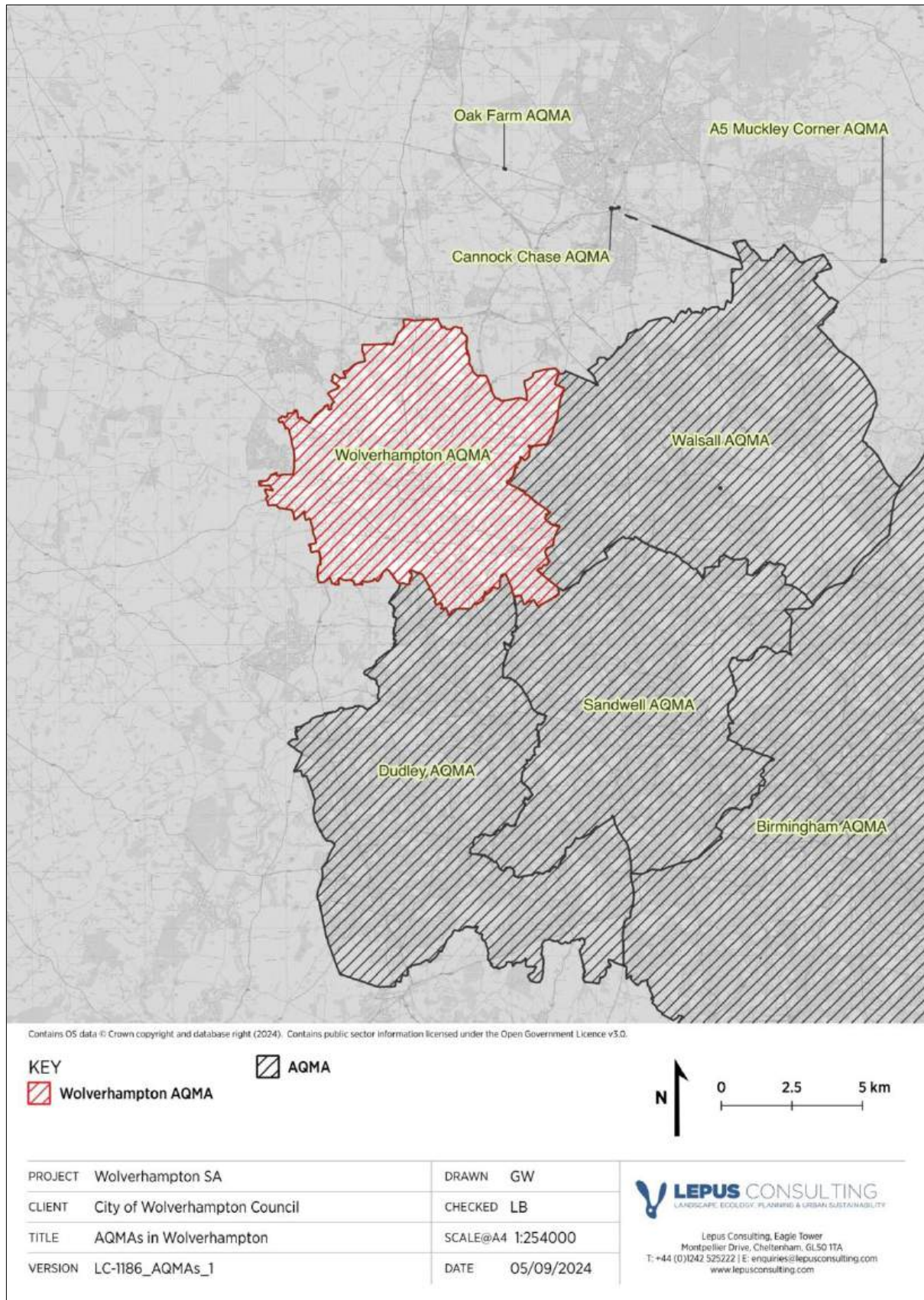


Figure 7.1: AQMAs in and around Wolverhampton

7.1.8 The issue of air quality has been considered under SA Objective 7 ‘Pollution’, which seeks to minimise the extent and impacts of water, air and noise pollution. Indicators for this objective include the number of residents in areas of poor air quality, proximity to pollutants (e.g. main roads), local increases in traffic or congestion and proximity to AQMAs.

Box 7.1: Summary of key issues for air quality in Wolverhampton



Key issues for air quality include:

- ⇒ Wolverhampton AQMA covers the whole local authority area and the principal pollutant affecting air quality is nitrogen dioxide (NO₂), mostly sourced from road traffic.
- ⇒ 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.
- ⇒ Atmospheric pollutants are expected to increase as a result of increasing traffic congestion issues.

7.2 Impacts on air

7.2.1 **Box 7.2** 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: Summary of identified effects of the WLP on air

Impact on air	Summary of identified effect
 Increased pollutant emissions	<p>Impacts on air quality may arise during the construction and occupation of different types of development proposed within the WLP. New development such as employment growth and new local services, coupled with the cumulative impact of high-density residential development, is likely to increase the volume of traffic within the WLP area. As a result, associated transport-related emissions including NO₂ and PM₁₀ will be released into the atmosphere, with potential adverse effects on local air quality.</p>
 Exposure of human and biodiversity receptors to poor air quality	<p>An increase in air pollution from new development including vehicular emissions could potentially have adverse impacts on ecological networks in Wolverhampton which are vulnerable to eutrophication, acidification and increased toxicity as a result of increased emissions.</p> <p>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 and main roads will be likely to make it more difficult to achieve National Air Quality Objectives⁷¹ within these areas.</p> <p>The entirety of Wolverhampton is currently classed as an AQMA. Consequently, all allocated sites are located within Wolverhampton AQMA. Some 22 allocated sites are located within 200m of a main road, raising the potential for exposure of site end users to atmospheric pollution from traffic.</p>

⁷¹ UK Air Quality Limits. Available at: <https://uk-air.defra.gov.uk/air-pollution/uk-eu-limits> [Date accessed: 12/09/24]

7.3 Local Plan mitigation

7.3.1 Various WLP policies, in particular Policy ENV11, aim to reduce pollution concentrations and minimise exposure to poor air quality where national objectives are not being met. These policies which will help to mitigate the impact of development on air quality are discussed in **Box 7.3**.

Box 7.3: Mitigating effects of the WLP planning policies on air

Policy mitigation for air	Summary of mitigating effect
 <p>Policy mitigation for impact of increased pollutant emissions</p>	<p>Policy ENV11 'Air quality' seeks to improve active travel routes, public transport and promotes electric vehicles as an effective alternative to petrol or diesel-powered vehicles as they emit fewer, or zero, air pollutants.</p> <p>Policy TRAN8 'Planning for low emission vehicles' will further support the integration and encourage the uptake of electric vehicles, and exploration of alternative low emission vehicle technologies.</p> <p>Policy ENV14 'Energy and sustainable design' will promote on-site renewable or low carbon technologies to be incorporated within new development. This will help to decrease reliance on energy generated from unsustainable sources, such as fossil fuels, consequentially reducing particulate emissions in the WLP area and overall air quality.</p> <p>Policy TRAN1 'Priorities for the development of the Transport Network' will help to facilitate a modal shift away from private car use to public transport and active travel. Underpinning Policy TRAN1 are Policies TRAN5 'Creating coherent networks for cycling and for walking', TRAN6 'Influencing the demand for travel and travel choices' and TRAN7 'Parking management' which together promote sustainable and active modes of transport that will help in the reduction of transport-associated emissions of NO₂ and particulate matter, improving air quality within the WLP area.</p>
 <p>Policy mitigation for exposure of human and biodiversity receptors to poor air quality</p>	<p>Policy ENV11 'Air quality' will require preparation of an Air Quality Assessment (AQA) and mitigation plan to ensure air quality objectives can be met, and will ensure that sustainable and active modes of transport are promoted that reduce NO₂ and PM₁₀ emissions alongside Policies TRAN1 'Priorities for the development of the Transport Network', TRAN5 'Creating coherent networks for cycling and for walking', TRAN6 'Influencing the demand for travel and travel choices' and TRAN7 'Parking management' as discussed above.</p> <p>Several policies including Policies ENV8 'Open Space, Sport and Recreation' and ENV10 'High quality design' will protect and enhance the GI network, and Policies ENV2 'Nature Conservation', ENV3 'Nature Recovery Network and Biodiversity Net Gain' and ENV4 'Trees and hedgerows' will retain and enhance biodiversity assets throughout the WLP area. These policies will be likely to boost air filtration ecosystem services provided by trees and vegetation.</p>

7.4 Residual effects on air

7.4.1 Although the policies discussed in **Box 7.3** will seek to address and reduce air pollution, **Box 7.4** explores the nature of the residual effects on air.

Box 7.4: Residual effects for air

Residual effect	Further details of the residual effect
<p style="text-align: center;">1</p> <p>Increased pollutant emissions</p>	<p>It is expected that with technological and infrastructural advances over time, including the transition to the widespread use of electric vehicles, greater uptake in the use of an efficient sustainable transport system, as well as legislative and behavioural changes, air quality will be improved by reducing vehicle related emissions. Various PPPs such as the emerging Wolverhampton Air Quality Management Action Plan and Air Quality Annual Status Reports, as well as the positive mitigating effects of the WLP policies presented in Box 7.3 are likely to reduce air pollution from development activities to some extent.</p> <p>However, as a result of the introduction of 9,330 dwellings and 42.9ha of employment floorspace within the Plan area there will be increased volumes of traffic and a greater demand for energy. As such, increased pollutant emissions, particularly NO₂ and PM₁₀, will be likely that cannot be fully mitigated by WLP policies alone.</p> <p>The continued transition to clean technologies will take place over the coming years. The long-term effect on emissions and air quality is likely to be positive, but short-term negative effects are expected.</p>
<p style="text-align: center;">2</p> <p>Exposure of human and biodiversity receptors to poor air quality</p>	<p>The policies outlined in Box 7.3 are expected to reduce the likelihood and extent of potential adverse impacts on human health and biodiversity assets regarding air pollution. However, as a result of the proposed development associated with the WLP including 9,330 homes and 42.9ha employment floorspace, the likely associated increases in traffic flows and reduction in air quality within an existing AQMA will be expected to have residual adverse effects which cannot be fully mitigated through the positive provisions of the WLP policies.</p> <p>There is anticipated to be a reduction in air quality across Wolverhampton which will affect health and biodiversity receptors and is expected to be a long term significant effect.</p>

8 Biodiversity, flora and fauna

8.1 Baseline

8.1.1 The conservation of biological and geological diversity and the protection and monitoring of endangered and vulnerable species and habitats is of great importance. National and European policies identify a hierarchy of designations which aim to promote the protection and enhancement of the natural environment. Key PPPs include the 25 Year Environment Plan⁷² and the Biodiversity Strategy for England⁷³ which seek to halt biodiversity loss, promote nature recovery, and expand multi-functional green infrastructure (GI) networks.

European sites

8.1.2 European 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 Directive⁷⁴ and Special Protection Areas (SPAs) classified under the Birds Directive⁷⁵. Additionally, the NPPF requires that sites listed under the Ramsar Convention are to be given the same protection as fully designated European sites.

8.1.3 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.

8.1.4 The two closest European sites to Wolverhampton are 'Fens Pools' SAC and 'Cannock Extension Canal' SAC. Threats and pressures at Fens Pools SAC which could potentially be exacerbated by the development set out in the WLP include habitat fragmentation and water pollution⁷⁶. Some of the threats and pressures to Cannock Extension Canal SAC include water pollution and air pollution⁷⁷.

⁷² HM Government (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 [Date accessed: 25/09/24]

⁷³ DEFRA (2011) Biodiversity 2020: A strategy for England's wildlife and ecosystem services. Available at: <https://www.gov.uk/government/publications/biodiversity-2020-a-strategy-for-england-s-wildlife-and-ecosystem-services> [Date accessed: 25/09/24]

⁷⁴ 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> [Date accessed: 10/09/24]

⁷⁵ 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> [Date accessed: 10/09/24]

⁷⁶ Natural England (2014) Site Improvement Plan: Fens Pools. Available at: <http://publications.naturalengland.org.uk/file/4872756676001792> [Date accessed: 10/09/24]

⁷⁷ Natural England (2014) Site Improvement Plan: Cannock Extension Canal. Available at: <http://publications.naturalengland.org.uk/file/6749431462363136> [Date accessed: 10/09/24]

- 8.1.5 A common approach taken across the UK to address recreational impacts at European sites is to establish a Zone of Influence (ZOI) based on detailed visitor survey data. The ZOI is the area within which there are likely to be significant effects arising from recreational activities undertaken by additional residents due to growth. This is often calculated by taking the distance at which 75% of interviewees surveyed have travelled to reach a particular site (based on a review of visitor survey data). No ZOIs have been identified for 'Fens Pools' SAC and 'Cannock Extension Canal' SAC at the time of writing.
- 8.1.6 'Cannock Chase' SAC lies some 11.5km to the north east of Wolverhampton, at its closest point. 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 disturbance⁷⁸. A 15km ZOI for Cannock Chase SAC has been identified through analysis of visitor survey data⁷⁹, a proportion of which falls within Wolverhampton (see **Figure 8.1**). Development proposed within this zone could potentially have an adverse impact on the SAC.
- 8.1.7 A Habitats Regulations Assessment (HRA) is being prepared alongside the development of the WLP which provides an in-depth assessment of the potential threats and pressures to European sites and analysis of potential impact pathways. The evolving outputs of this process have informed the SA.
- 8.1.8 The Regulation 19 HRA⁸⁰ identified likely significant effects (LSEs) at the following European sites as a result of the development proposed from the WLP during the Screening exercise:
- **Cannock Chase SAC** – air quality and recreational pressure LSEs;
 - **Cannock Extension Canal SAC** – air quality and water quality/quantity LSEs;
 - **Fens Pools SAC** – air quality and water quality/quantity LSEs;
 - **Humber Estuary SAC** – water quality/quantity LSE;
 - **Humber Estuary Ramsar** – water quality/quantity LSE;
 - **Midland Meres & Mosses Phase 1 Ramsar** – water quantity LSE;
 - **Midland Meres & Mosses Phase 2 Ramsar** – water quantity LSE;
 - **Mottey Meadows SAC** – water quantity LSE;
 - **Severn Estuary SAC** – water quality/quantity LSE; and
 - **Severn Estuary Ramsar** – water quality/quantity LSE.

⁷⁸ Natural England (2014) Site Improvement Plan: Cannock Chase. Available at:
<http://publications.naturalengland.org.uk/publication/4957799888977920> [Date accessed: 10/09/24]

⁷⁹ Underhill-Day, J. & Liley, D. (2012) Cannock Chase Visitor Impacts Mitigation Report. Footprint Ecology. Unpublished Report.

⁸⁰ Lepus Consulting (2024) Habitats Regulations Assessment of the Wolverhampton Local Plan. Regulation 19 Publication Consultation.

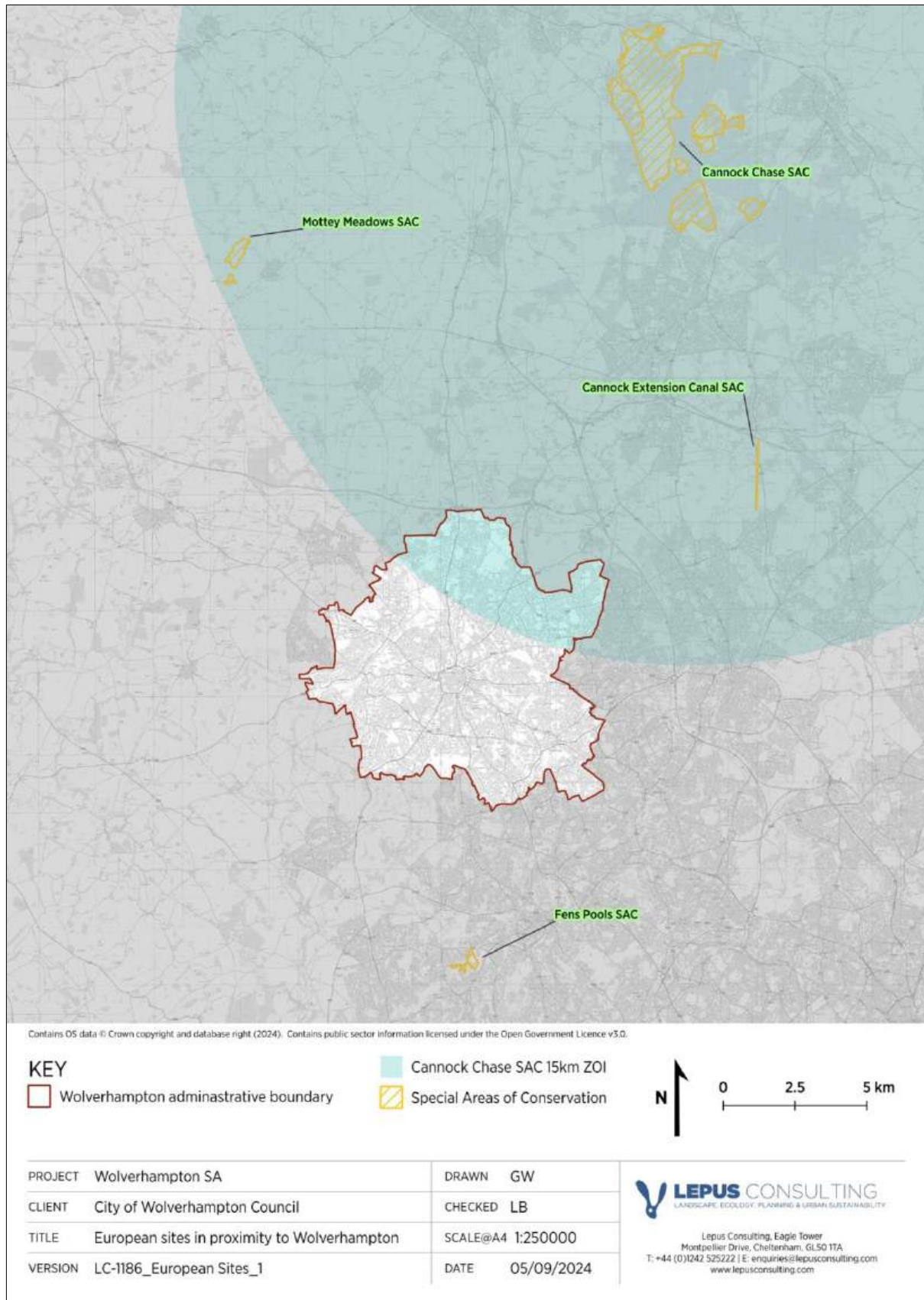


Figure 8.1: European sites in proximity to Wolverhampton

National and local designations

- 8.1.9 The WLP area contains an important network of local designations running through the urban area, including Local Nature Reserves (LNR), Sites of Importance for Nature Conservation (SINC) and Sites of Local Importance for Nature Conservation (SLINC) for their geological importance. These also form important wildlife corridors, allowing species to move between habitats. There are no National Nature Reserves (NNRs) within Wolverhampton.
- 8.1.10 Following ecological survey work conducted between 2019 and 2022, a number of candidate SINC and SLINC have been identified by the Local Sites Partnership within the Black Country. At the time of writing, recommendations for one new SINC, one new SLINC and one SLINC boundary change have not yet been formally designated through Cabinet approval. SINC and SLINC, including emerging sites, are shown in **Figure 8.2**.

Ancient woodland

- 8.1.11 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.
- 8.1.12 There are small areas of ancient woodland located within the City of Wolverhampton providing important habitat for rare and threatened species, as well as ecosystem services including soil stability and cultural value (see **Figure 8.2**).

Geodiversity

- 8.1.13 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 habitats and the ecosystem, with the soil being the link between them. There are 15 Regionally Important Geodiversity Sites within the West Midlands area, but none within the City of Wolverhampton.

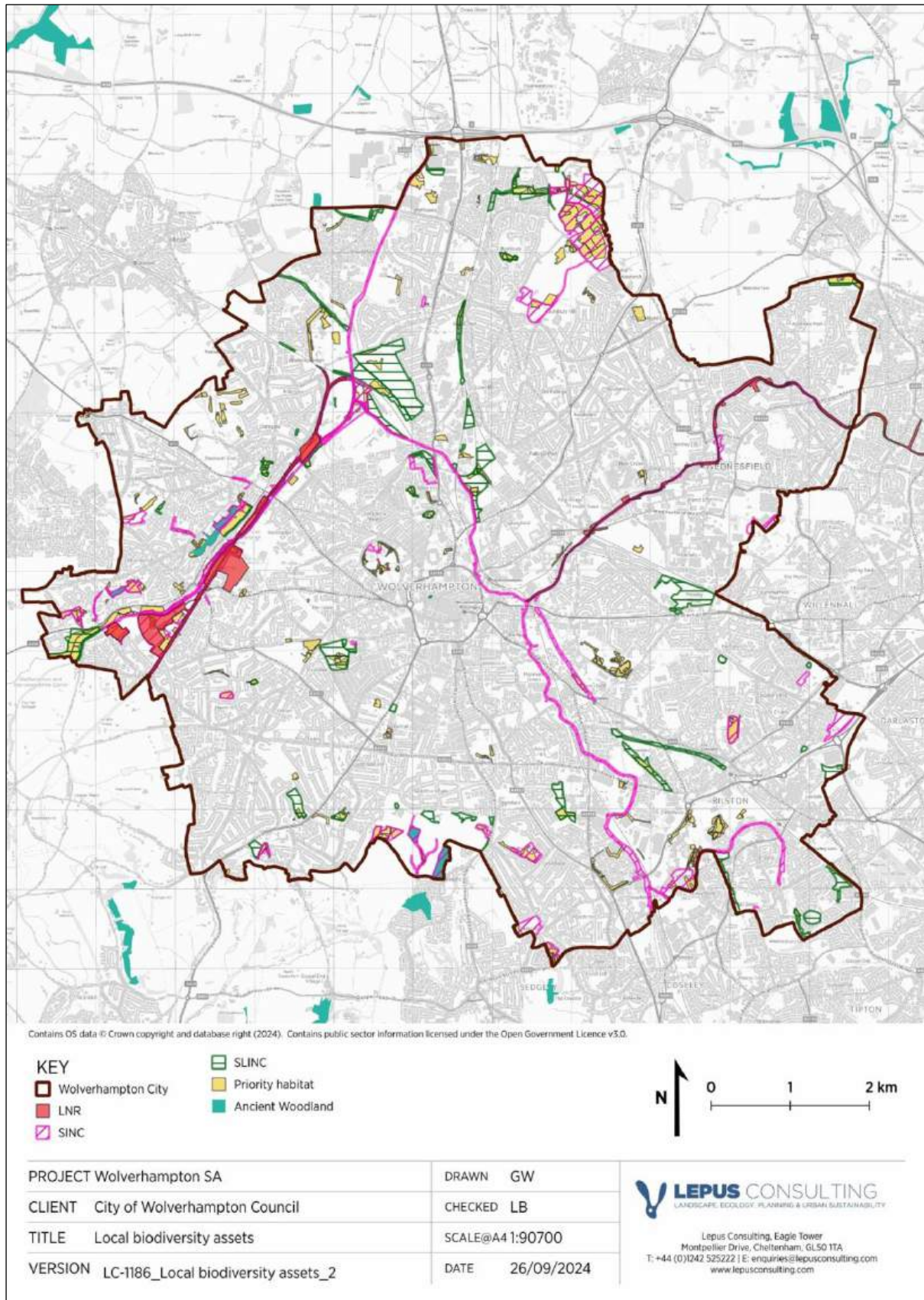


Figure 8.2: Local biodiversity designations in Wolverhampton

Green infrastructure and priority habitats

- 8.1.14 Much of the City of Wolverhampton is heavily urbanised, with a lack of mature trees within the district centres. Lack of GI, such as trees, 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.
- 8.1.15 Development proposals could potentially result in benefits to biodiversity, through the incorporation of GI, delivery of environmental net gain and contributions towards strategic Nature Recovery Networks. A Nature Recovery Network is a connected system of habitats that are important for flora and fauna⁸¹. The redevelopment of brownfield sites could also help to improve the biological and geological value of an area.
- 8.1.16 Multi-functional GI assets including natural and semi-natural features within the urban areas should also be conserved and enhanced to support ecosystem services and the emerging Local Nature Recovery Network (LNRN) for Birmingham and the Black Country as shown in **Figure 8.3**⁸².

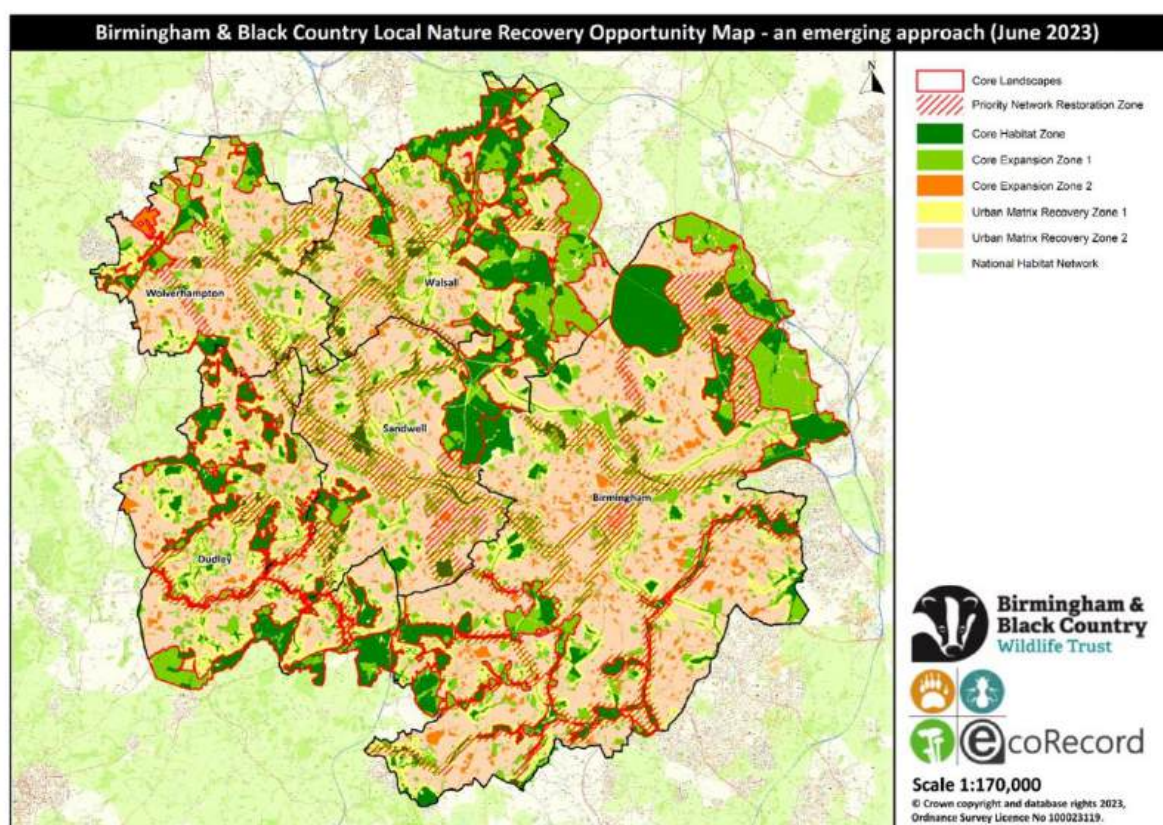


Figure 8.3: Draft Black Country Local Nature Recovery Network (source: The Wildlife Trust)

⁸¹ The Wildlife Trusts Birmingham and Black Country (no date) Nature Recovery Network. Available at: <https://www.bbcwildlife.org.uk/NatureRecoveryNetwork> [Date accessed: 10/09/2024]

⁸² Birmingham & The Black Country Wildlife Trust (2023) Local Nature Recovery Strategies. Available at: www.bbcwildlife.org.uk/local-nature-recovery-strategy-lnrns [Date accessed: 12/09/24]

- 8.1.17 CWC is a member of the Birmingham and Black Country Biodiversity Action Plan (BBC BAP) Partnership, which works to deliver priority actions set out in the BBC BAP (2010)⁸³. The BBC BAP also indicates habitat creation targets for the area from 2010 to 2026. Priority habitats present in Wolverhampton (and shown on **Figure 8.2** above) include:
- Good quality semi-improved grassland;
 - Deciduous woodland;
 - Coastal and floodplain grazing marsh;
 - Traditional orchard (small extents); and
 - Lowland meadows (small extents).
- 8.1.18 The BBC BAP states that 131 species of principal importance for the purpose of conserving biodiversity within section 41 of the NERC Act 2006 have been recorded in Birmingham and the Black Country. Biodiversity Opportunity Areas (BOAs) were also identified through the BAP, representing areas which either have a high density of priority habitat or which could be developed as a habitat network.
- 8.1.19 Biodiversity, flora and fauna have been predominantly considered under SA Objective 3 'Biodiversity, flora, fauna and Geodiversity' which aims to help protect, enhance and manage the flora, fauna, biodiversity and geodiversity assets of the borough.

Box 8.1: Summary of key issues for biodiversity, flora and fauna in Wolverhampton

Key issues for biodiversity, flora and fauna include:

- ⇒ There are a few BAP habitats and species present within the Local Plan area, which should continue to be managed and conserved appropriately, and opportunities sought for enhancement.
- ⇒ Enhancements to the WLP area's GI network will support local and sub-regional biodiversity networks through helping to improve connectivity for habitats and species.
- ⇒ Growth within the WLP area is likely to put pressure on biodiversity. There are potential impacts from habitat fragmentation resulting from new development areas and recreational pressures on wildlife sites.
- ⇒ Geodiversity is a key contributor to the WLP's natural environment and may be affected by noise or light pollution.

Key issues relating to areas designated pursuant to the Birds and Habitats Directives

- ⇒ The following LSEs have been identified in the HRA screening process for the WLP:
 - Air quality (Cannock Chase SAC, Cannock Extension Canal SAC and Fens Pool SAC).
 - Water quality and/or quantity changes (Cannock Extension Canal SAC, Fens Pools SAC, Humber Estuary SAC and Ramsar, Midland Mere and Mosses Phase 1 and Phase 2 Ramsar, Motte Meadows SAC, Severn Estuary SAC and Ramsar).
 - Recreational pressure (Cannock Chase SAC).


⁸³Wolverhampton City Council- Biodiversity Cabinet Report July 2013 final. Available at: <https://wolverhampton.moderngov.co.uk/Data/Cabinet/201307241700/Agenda/Item%2018%20-%20Birmingham%20and%20Black%20Country%20Biodiversity%20Action%20Plan.pdf> [Date accessed: 10/09/24]

8.2 Impacts on biodiversity, flora and fauna

8.2.1 **Box 8.2** 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: Summary of identified effects on biodiversity, flora and fauna



Impact on biodiversity	Summary of identified effect
 <p>Threats or pressures to European sites</p>	<p>A number of LSEs have been identified in the HRA screening process with regard to several European sites as described within section 8.1, across a number of impact pathways including air quality, water quality/quantity and recreational pressures.</p> <p>To manage identified recreational pressures at the Cannock Chase SAC a 15km recreational ZOI has been established through evidence collated by the Cannock Chase SAC Partnership. Three allocated sites (H22, H24c and H24d) are located within the identified ZOI and could give rise to recreational impacts on the European site without mitigation.</p>
 <p>Threats or pressures to nationally designated biodiversity sites</p>	<p>The majority of allocated sites are not expected to result in adverse effects on SSSIs. However, three allocated sites (H22, H24c, and H24d) are located within SSSI IRZs which require consultation with Natural England to ensure any potential adverse effects on nearby SSSIs (i.e. those underpinning Cannock Chase SAC) are identified and addressed.</p> <p>Potential impacts on SSSIs include increased recreational disturbance caused by residents visiting the designated sites and deterioration of local air quality due to increased traffic levels.</p>
 <p>Threats or pressures to locally designated and non-statutory biodiversity sites</p>	<p>Adverse impacts due to development proposed in the WLP on locally designated sites could potentially include direct impacts such as habitat loss and/or indirect impacts such as increased recreational disturbance and increased risk of water or air pollution caused by visitors to these sites.</p> <p>Four allocated sites (Sites H2, H3, H4 and H5) are located adjacent to 'Wyrley and Essington Canal' LNR.</p> <p>Ten allocated sites lie directly adjacent to SINC, and two allocated sites (E12 and E25) coincide with 'Neachells Lane Open Space' SLINC and 'Land East of Dale Street' SLINC respectively. Furthermore, four allocated sites are located adjacent to a SLINC, where Site H14 is located adjacent to 'Dudley to Priestfield Disused Railway' SLINC, Site E7 is located adjacent to 'Land at Wolverhampton Science Park' SLINC, and Sites E20 and E21 are located adjacent to 'Taylor Road' SLINC.</p> <p>Site GT1 coincides with 'Bushbury Junction Reservoir' SLINC; however, it is understood that this reservoir has since been landfilled. It is unknown whether this site is still of any importance for biodiversity; therefore, the impact of the proposed development at this site is uncertain.</p>



Impact on biodiversity	Summary of identified effect
 <p>Fragmentation of the ecological network and priority habitats</p>	<p>The majority of allocated sites (23) are located on previously undeveloped land and/or contain some land with potential environmental value. Whilst in many cases these habitats can be conserved alongside development, it is likely that in some cases of fragmentation or loss of habitats and connections between habitats will occur. Increased density within the urban area of Wolverhampton may also result in losses to the GI network, where it is important to retain ecological links amongst built form.</p> <p>Additionally, one allocated site (Site E23) partially coincides with deciduous woodland priority habitat, covering 3.3% of the site.</p> <p>Potential adverse effects associated with the development at these sites includes:</p> <ul style="list-style-type: none"> • Direct effects: permanent loss of habitats in short term; • Secondary effects: such as reduced habitat connectivity and increased fragmentation, with increased fragility of habitats; or • Indirect effects: reduced ecological coherence.

8.3 Local Plan mitigation

8.3.1 Several policies within the WLP aim to protect and enhance biodiversity within the Plan area. The policies discussed in **Box 8.3** are expected to mitigate some of the adverse impacts identified in **Box 8.2**.

Box 8.3: Mitigating effects of the WLP planning policies on biodiversity


Policy mitigation for biodiversity	Summary of mitigating effect
 <p>Threats or pressures to European sites</p>	<p>Policy ENV2 'Development affecting Cannock Chase Special Area of Conservation' requires any development leading to a net increase in homes or creates visitor accommodation within a 15km boundary of Cannock Chase SAC to carry out an appropriate assessment. Where an adverse impact is identified under the appropriate assessment sufficient measures to avoid the identified impact are required.</p> <p>Policy ENV1 'Nature Conservation' will ensure that development within Wolverhampton will safeguard nature conservation designations, including European sites.</p> <p>Policy ENV3 'Nature Recovery and Biodiversity Net Gain' requires at least 10% BNG in line with national requirements which will be expected to improve habitat connectivity including for supporting habitats to European sites.</p>
 <p>Threats or pressures to nationally designated biodiversity sites</p>	<p>Policy ENV1 'Nature Conservation' will ensure that development within Wolverhampton will safeguard nature conservation, including NNRs and SSSIs, where it states "<i>development is not permitted where it would harm...Sites of Special Scientific Interest and National Nature Reserves</i>".</p> <p>Policy ENV3 'Nature Recovery and Biodiversity Net Gain' requires BNG enhancement in line with national requirements which will help to improve habitat connectivity and including for supporting habitats to SSSIs.</p>

Policy mitigation for biodiversity	Summary of mitigating effect
 <p>Threats or pressures to locally designated and non-statutory biodiversity sites</p>	<p>Policy ENV1 'Nature Conservation' will ensure that development within Wolverhampton will safeguard nature conservation designations, including locally designated and non-statutory biodiversity assets, where it states "development is not permitted where it would harm... Local Nature Reserves and Sites of Importance for Nature Conservation... Sites of Local Importance for Nature Conservation... and geological features".</p> <p>Policy ENV6 'Geodiversity and the Black Country UNESCO Global Geopark' ensures that development proposals will protect locally significant geological sites designated as SLINC and SINC.</p>
 <p>Fragmentation of the ecological network and priority habitats</p>	<p>Policy ENV3 'Nature Recovery and Biodiversity Net Gain' alongside BNG contributions will require all developments to consider contributions to the delivery of the emerging Local Nature Recovery Strategy and will require development to protect and enhance priority habitats.</p> <p>Policy ENV4 'Trees and hedgerows' aims to create, retain and protect trees, woodland and hedgerows, including a target for achieving 20% canopy cover by 2035. Trees, woodlands and hedgerows support a vast array of important flora and fauna and can serve as useful connecting habitats to facilitate movement in the urban area and will therefore protect and enhance ecological networks within Wolverhampton.</p> <p>Policy ENV7 'Canal network' recognises the importance of the canal network in relation to Wolverhampton's green and blue infrastructure and ecological network and will seek to protect and enhance these features.</p> <p>Policy ENV8 'Open space and recreation' sets out the requirements of development to protect, manage and enhance open spaces which will be expected to increase coverage of natural habitats and provide green links and enhancements to the ecological network.</p> <p>Policy ENV10 'High quality design' will protect and enhance green and blue infrastructure (GI and BI) which will be likely to deliver additional habitats and present opportunities to better connect biodiversity features.</p>

8.4 Residual effects on biodiversity, flora and fauna

8.4.1 It is likely that the implementation of WLP policies will ensure biodiversity assets within Wolverhampton are conserved and enhanced alongside development at the majority of proposed sites. The residual effects of the WLP on biodiversity are discussed in **Box 8.4**.

Box 8.4: Residual effects for biodiversity, flora and fauna

Residual effects	Further details of the residual effect
 <p>Threats or pressures to European sites</p>	<p>As discussed within the HRA, the WLP policies set out in Box 8.3 alongside other protective measures in existing planning policy frameworks that serve to overcome any identified potential impact associated with new development set out in the WLP, including for Cannock Chase SAC, are expected to ensure that the WLP will not have any adverse impact on site integrity at any European site, either alone or in-combination.</p>

Residual effects	Further details of the residual effect
<p style="text-align: center;">2</p> <p>Threats or pressures to nationally designated biodiversity sites</p>	<p>The WLP policies will prevent development that has potential to harm SSSIs, and through BNG enhancement will be likely to help improve habitat connectivity and support nature recovery across the Plan area, including for supporting habitats to nationally designated sites.</p> <p>A negligible effect on nationally designated biodiversity sites can be expected.</p>
<p style="text-align: center;">3</p> <p>Threats or pressures to locally designated and non-statutory biodiversity sites</p>	<p>The WLP policies regarding biodiversity including ENV1 'Nature conservation' will be expected to mitigate potential adverse impacts identified on LNRs, SINC and SLINC for the majority of the allocated sites.</p> <p>However, the WLP policies will not be expected to fully mitigate adverse effects on sites which coincide with SLINCs (E12 and E25), or for sites which are directly adjacent to SLINCs/SINCs, where there is potential for direct habitat loss or degradation of the habitats associated with the designations.</p> <p>A potential long-term significant effect on locally designated and non-statutory biodiversity sites is identified.</p>
<p style="text-align: center;">4</p> <p>Fragmentation of the ecological network and priority habitats</p>	<p>The policies discussed within Box 8.3 will be likely to help enhance the connectivity between habitats and improve the resilience of ecological and GI networks to current and future pressures. The policies will help to conserve and enhance GI coverage and create additional habitats, presenting opportunities to better connect biodiversity features. Furthermore, the policies will help to protect and enhance the emerging Local Nature Recovery Network through requiring developments to make contributions to the network. These factors are likely to lead to a longer-term positive effect on biodiversity.</p>

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, although efforts can be made to help limit these increases.

9.1.2 The Climate Change Act 2008⁸⁴ is the basis for the UK’s approach to tackling and responding to climate change. It requires that emissions of carbon dioxide (CO₂) and other GHGs 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 Committee on Climate Change (CCC) report ‘Net Zero – The UK’s contribution to stopping global warming’⁸⁵ recommended new emission targets: reducing GHG emissions by at least 100% of 1990 levels (net zero) by 2050. The CCC’s latest progress report⁸⁶ discusses the need for further measures to be implemented to ensure the UK meets the next target of reducing emissions in 2030 by 68% compared to 1990 levels.

9.1.4 CWC declared a Climate Emergency in July 2019; all actions that the Council is undertaking against climate change fall into three fields – Council, City and Community⁸⁷.

Renewable energy

9.1.5 One strategy to combat GHG emissions is to reduce the quantity of energy produced via fossil fuel led energy production⁸⁸. In the last two decades, there has been a significant increase in the volume of energy generated through renewable sources (see **Table 9.1**).

9.1.6 The promotion of on-site renewable or low carbon technologies incorporated with new development in the WLP will 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 CWC’s contributions towards the causes of climate change.

Table 9.1: Total renewable energy generation in Wolverhampton and West Midlands between 2019 and 2022⁸⁹

Renewable Energy Generation (MWh)	2019	2020	2021	2022
Wolverhampton	26.4	26.8	27.4	28.3
West Midlands	2123.5	2128.5	2146.1	2308.1

⁸⁴ Climate Change Act 2008. Available at: <http://www.legislation.gov.uk/ukpga/2008/27/contents> [Date accessed: 10/09/24]

⁸⁵ CCC (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/> [Date accessed: 10/09/24]

⁸⁶ CCC (2024) Progress in reducing emissions: 2024 Report to Parliament. Available at: <https://www.theccc.org.uk/publication/progress-in-reducing-emissions-2024-report-to-parliament/> [Date accessed: 10/09/24]

⁸⁷ CWC (2020) Our Climate Commitment. Available at: <https://www.wolverhampton.gov.uk/sites/default/files/2020-01/Future%20Generations%20-%20Our%20Climate%20Commitment.pdf> [Date accessed: 10/09/24]

⁸⁸ 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/> [Date accessed: 10/09/24]

⁸⁹ DBEIS (2019) Renewable electricity by local authority. Available at: <https://www.gov.uk/government/statistics/regional-renewable-statistics> [Date accessed: 10/09/24]

9.1.7 The layout and design of development can have benefits to sustainability and reducing contributions to climate change. The WLP could potentially help encourage the development of more energy efficient homes to help reduce the overall carbon emissions of Wolverhampton, such as Eco Houses, Zero Carbon Homes and Passivhaus⁹⁰.

Carbon emissions

9.1.8 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 GHG emissions by 55% by 2025, 68% by 2030, 78% by 2035 and 100% by 2050⁹¹. It will therefore be an important role of the Local Plan to encourage sustainable development and construction and support low carbon energy sources. The emerging Wolverhampton Net Zero City 2041 Strategy and Action Plan is expected to address these issues⁹².

9.1.9 As of 2022, Wolverhampton's per capita emissions are lower than the West Midlands and the national average (see **Table 9.2**). The largest source of CO₂ emissions in Wolverhampton has remained as domestic sources, closely followed by transport (see **Table 9.3**). It is likely that residential development proposed within the WLP will result in an associated increase in domestic emissions, as well as an increase in the number of vehicles on the road in the Plan area with a consequent increase in transport emissions, contributing to the Greenhouse Effect and exacerbating anthropogenic climate change.

Table 9.2: Total and per capita territorial carbon dioxide emissions in 2022 in Wolverhampton⁹³

Local authority	Total emissions (ktCO ₂)	Population estimate	Per capita emissions (tCO ₂)
Birmingham	3,803.3	1,157,000	3.3
Dudley	1,018.3	325,000	3.1
Sandwell	1,247.3	344,000	3.6
Walsall	975.2	286,000	3.4
Wolverhampton	654.5	267,000	3.2
West Midlands total	26,732.4	6,021,000	4.4
England	243,641.3	57,106,000	4.3

Table 9.3: CO₂ emissions within Wolverhampton by sector for each year from 2020-2022⁹⁴

Period	Industry	Commercial	Public Sector	Domestic	Transport	Agriculture	Waste Management	Total
2020	117.7	105.8	49.6	338.1	255.7	0.3	0.3	870.4
2021	137.6	115.8	52.0	347.3	273.0	0.2	0.3	929.3
2022	129.9	109.9	47.7	297.0	266.3	0.2	0.3	845.5

⁹⁰ 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 [Date accessed: 13/09/24]

⁹¹ Ibid

⁹² City of Wolverhampton Council (2024) Our Net Zero City: 2041. Available at: <https://consultation.wolverhampton.gov.uk/green-cities/our-net-zero-city/#:~:text=Working%20with%20other%20organisations%2C%20the,through%20increased%20planting%20and%20landscaping.> [Date accessed: 22/10/24]

⁹³ DESNZ & DBEIS (2023) UK local authority and regional greenhouse gas emissions and national statistics 2005 – 2022. Available at: <https://www.gov.uk/government/collections/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics> [Date accessed: 13/09/24]

⁹⁴ Ibid

9.1.10 As presented in **Figure 9.1**, embodied emissions are present throughout the whole lifecycle of a building or infrastructure. Around 1 in 10 tonnes of the UK’s total GHG emissions are embodied emissions, totalling 64 million tonnes of CO₂ a year⁹⁵. Reducing embodied carbon alongside operational carbon is therefore vital in reaching net zero carbon objectives. Proposals for an amendment to the Building Regulations⁹⁶ known as ‘Part Z’ would see embodied carbon regulated throughout development. Reducing embodied carbon can be achieved through several changes, including:

- Reusing buildings;
- Use low-carbon concrete mixes;
- Use less carbon-intensive materials;
- Reuse materials;
- Use fewer finishes; and
- Design for material efficiency.

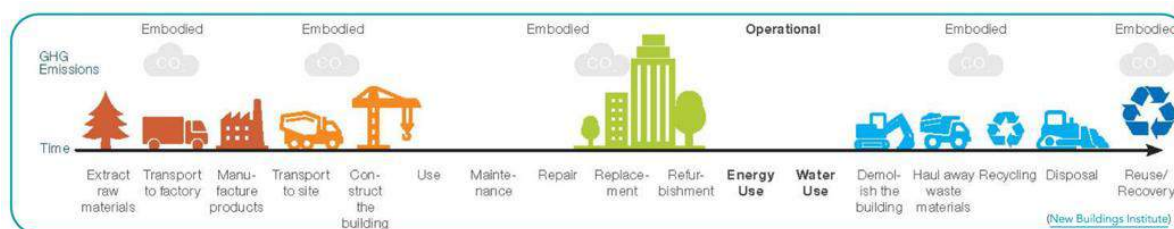


Figure 9.1: Embodied and operational GHG emissions⁹⁷

Flooding

9.1.11 Climate change is anticipated to increase the risk of extreme weather events. Of particular concern in the UK is the increasing frequency and severity of fluvial, surface water and coastal flooding. Flooding is the most significant issue related to climate change impacts in the WLP area. The risk of surface water flooding in urban areas may increase in particular in the light of more torrential and frequent rainfall events especially during winter.

9.1.12 A network of waterways course through the WLP area, associated with the River Severn and River Humber. Associated with these waterways are differing extents of fluvial flood risk. As shown in **Figure 9.2**, the significant majority of the WLP area is within Flood Zone 1, where fluvial flood risk is low; however, there are some extents of Flood Zone 2 and 3 located to the north, south west and south east of Wolverhampton. **Figure 9.2** also shows ‘Indicative Flood Zone 3b’ identified in the Strategic Flood Risk Assessment (SFRA) prepared for the former BCP⁹⁸, within the WLP area, which was compiled using available hydraulic modelling scenarios.

⁹⁵ Policy Position Paper: Embodied carbon regulation – alignment of industry policy recommendations. January 2024. Available at: www.istructe.org/getattachment/05855cb7-990a-477e-8672-9329aa3307ca/attachment.aspx [Date accessed: 05/08/24]

⁹⁶ An industry-proposed amendment to the Building Regulations 2010. Whole life carbon. Industry-proposed document. January 2024. Available at: <https://part-z.uk/proposal> [Date accessed: 10/09/24]

⁹⁷ UK GBC. Operational and Embodied Carbon. Explainer Guide. Available at: <https://ukgbc.org/wp-content/uploads/2023/02/operational-and-embodied-carbon-1.pdf> [Date accessed: 05/08/24]

⁹⁸ JBA Consulting (2020) The Black Country Authorities Level 1 Strategic Flood Risk Assessment. Final Report, 25th June 2020. Available at: <https://blackcountryplan.dudley.gov.uk/t2/p4/t2p4h/> [Date accessed: 09/10/24]

- 9.1.13 CWC commissioned an updated Level 1 SFRA⁹⁹ which identified flood risk across Wolverhampton from all sources, and potential increases in flood risk due to climate change, and produced modelled outputs. The Level 2 SFRA¹⁰⁰ includes a screening of proposed WLP allocations to identify any risks of flooding in line with PPG, and to allow the Sequential Test and Exceptions Test to be applied correctly.
- 9.1.14 The SFRA (2024) identified fluvial (river) and surface water flooding as the most significant sources of flood risk. The primary fluvial flood risk is along the Smestow Brook and along a culverted tributary of the River Tame. Culverted or heavily modified watercourses have the potential to cause or exacerbate flood risk, for example due to blockages forming in culverts or becoming overwhelmed in high rainfall events. Future development within the area could increase the risk of flooding posed to neighbouring areas if not carefully managed. Surface water flood risk is high across many areas of the WLP area (see **Figure 9.3**), owing to the urbanised nature of Wolverhampton, with particularly high risk areas including Pendeford, Perry Hall, Ettingshall and land between Dunstall Hill and Low Hill. Surface water flooding typically occurs when intense rainfall overwhelms drainage systems¹⁰¹; this is usually temporary and low impact in comparison to fluvial flood events.
- 9.1.15 In addition to fluvial and surface water flooding, properties and infrastructure within Wolverhampton are also at risk of flooding from other, more localised, sources. Other potential sources of flooding include groundwater flooding associated with the emergence of groundwater at the surface away from river channels, or the rising of groundwater into man-made ground¹⁰², leading to increased risk of sewer flooding if the water table rises above the level at which a sewer has been laid.
- 9.1.16 The SFRA (2024) sets out the results of a cumulative assessment that considered historic flood risk, surface water flood risk, potential development, predicted flood risk from increased runoff upstream and sewer flooding to rank catchments within Wolverhampton and surrounding local authorities such as Dudley and Sandwell. Each catchment within Wolverhampton was allocated a risk ranking (see **Figure 9.4**), indicating a small proportion of the area is located within a high risk catchment, however the remaining catchments are considered to be medium and low risk.
- 9.1.17 Increased naturalisation of watercourses and restoration of the floodplain, including the opening up of culverts where possible, would help to reduce the risk of flooding, as well as provide benefits to biodiversity, amenity and water quality.

⁹⁹ JBA Consulting (2024) City of Wolverhampton Council Level 1 Strategic Flood Risk Assessment. Draft, August 2024.

¹⁰⁰ JBA Consulting (2024) Wolverhampton Level 2 Strategic Flood Risk Assessment. Draft, October 2024.

¹⁰¹ Environment Agency. Flood risk maps for surface water: how to use the map. Available at: <https://www.gov.uk/government/publications/flood-risk-maps-for-surface-water-how-to-use-the-map> [Date accessed: 10/09/24]

¹⁰² British Geological Survey (2022) Groundwater flooding research overview. Available at: https://www2.bgs.ac.uk/groundwater/flooding/groundwater_flooding.html [Date accessed: 10/09/24]

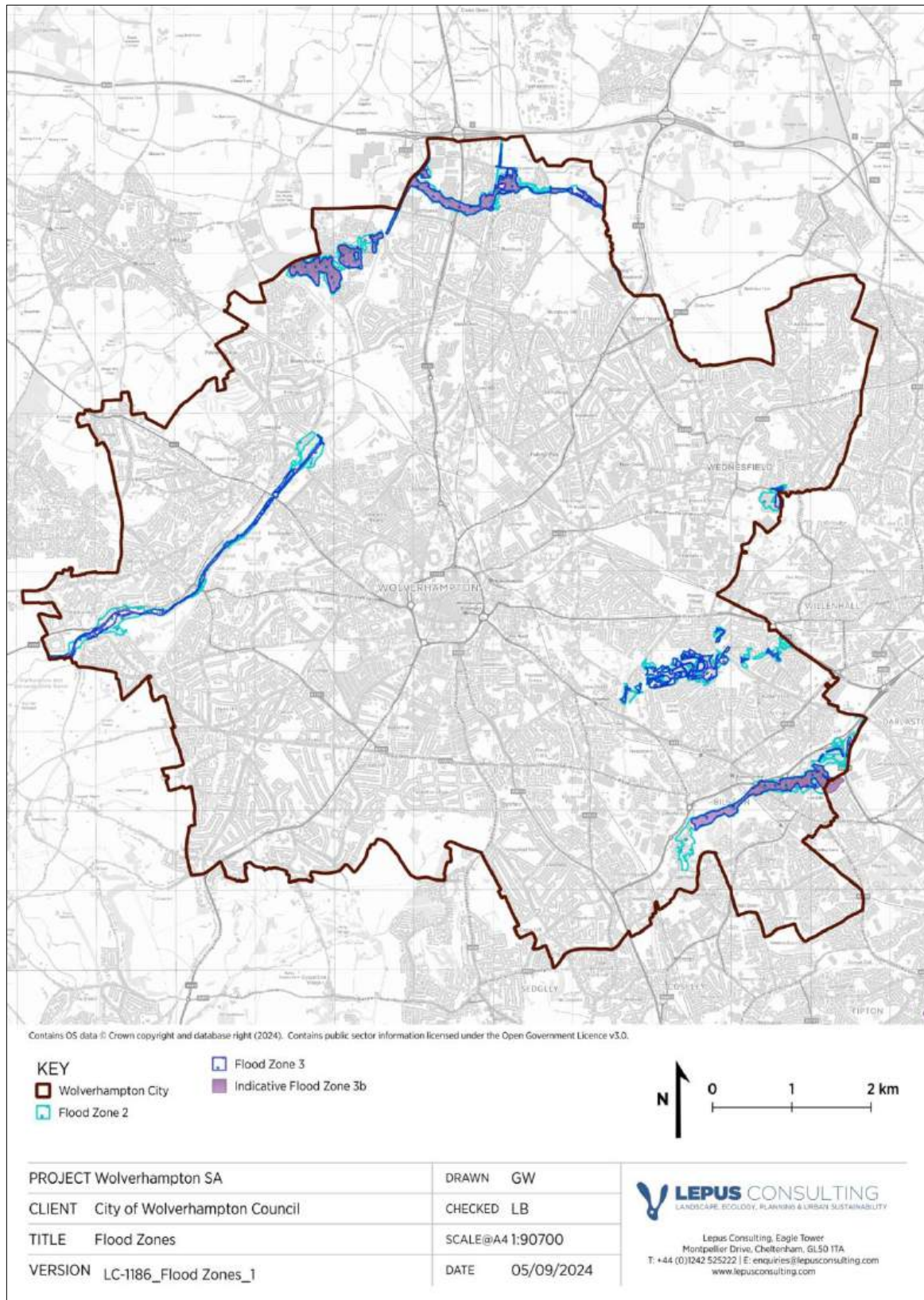


Figure 9.2: Flood zones in Wolverhampton

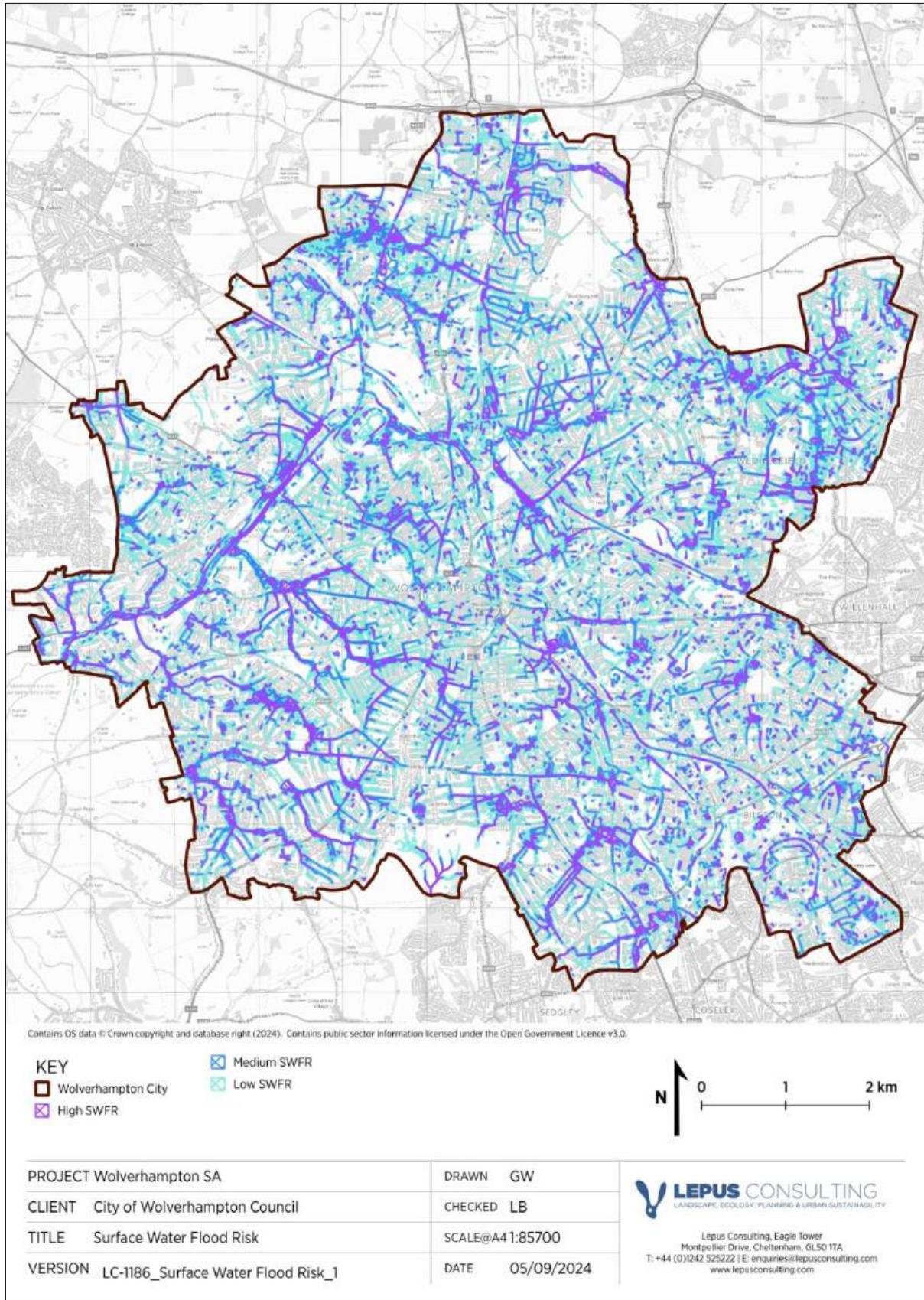


Figure 9.3: Surface water flood risk in Wolverhampton

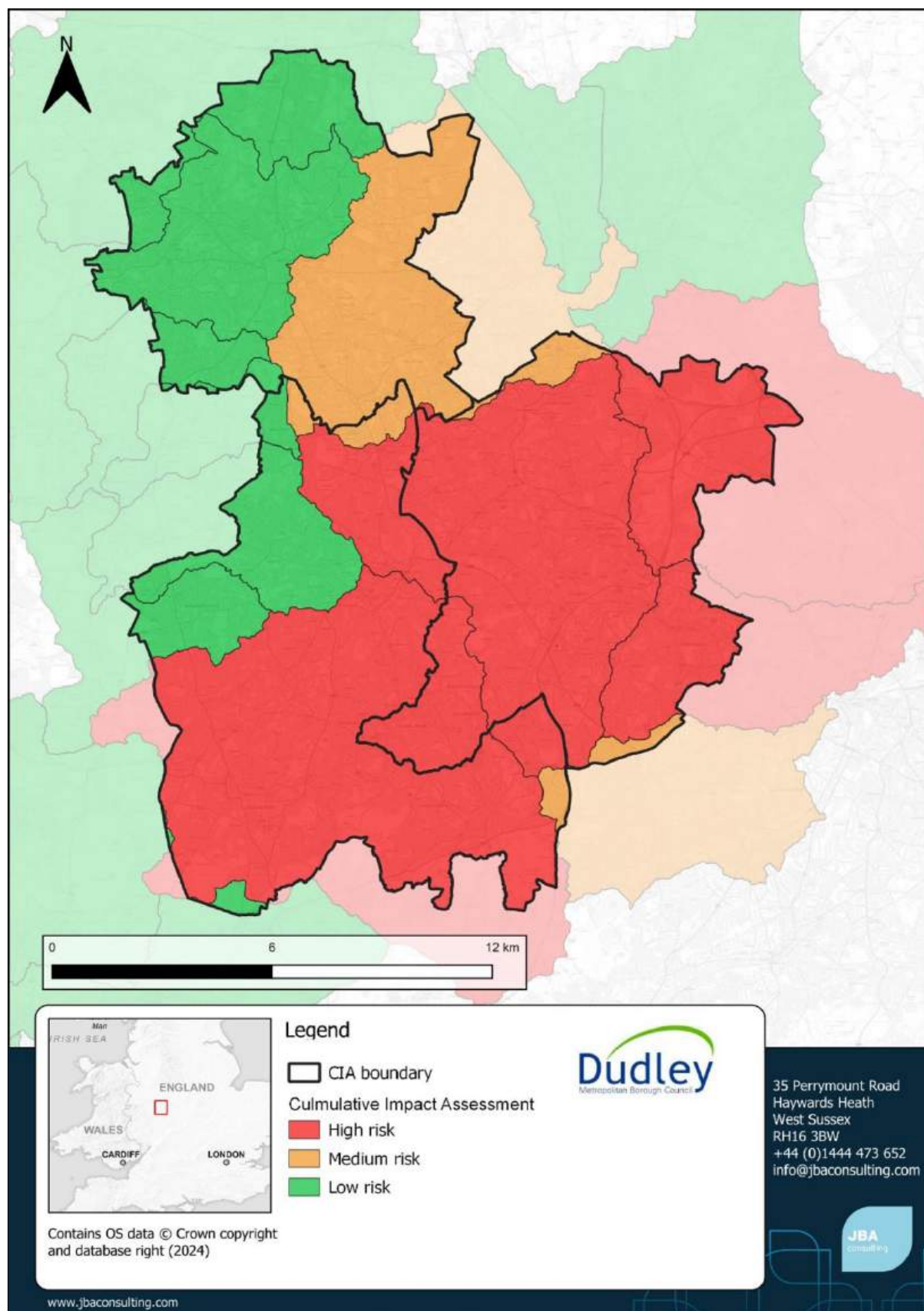


Figure 9.4: RAG rating of catchments in Wolverhampton, Sandwell and Dudley (extracted from the SFRA¹⁰³)

¹⁰³ JBA Consulting (2024) City of Wolverhampton Council Level 1 Strategic Flood Risk Assessment. Draft, August 2024.

Green Infrastructure

- 9.1.18 Climate change has the potential to result in a range of environmental risks within the WLP area and nationally, such as those associated with increased heatwaves in the summer months and more frequent storm events in the winter. This can have knock-on 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.
- 9.1.19 Wolverhampton's GI network includes LNRs, SLINCs, SINCs, allotments, playing fields, parks, woodlands, agricultural land and margins, hedgerows, ridgelines, disused railways and canals. These green assets should be protected, maintained and enhanced, in order to safeguard the ecosystem services they provide, including the natural storage of flood water and slowing of surface water run-off rates.
- 9.1.20 GI has many benefits including, human health and wildlife value¹⁰⁴ and 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 runoff¹⁰⁵.

Adapting to climate change

- 9.1.21 Site allocations on undeveloped land, or that will result in a net loss of GI / vegetation, could potentially result in a reduced capability of the environment to provide ecosystem services including carbon storage, the storage and filtration of water including natural flood protection, as well as reduced availability and connectivity of habitats enabling movement of species. Loss of previously undeveloped land has been considered within **Chapter 14 – Soil**.
- 9.1.22 Natural England's GI Framework¹⁰⁶ seeks to ensure that LPAs and developers can meet the requirements in the NPPF to consider GI in local plans and in new development in a way that will recognise and maximise the multi-functional benefits of GI including for water regulation, climate resilience, and spaces for recreation and education. The WLP area will benefit from GI enhancements to receive the associated positive effects.
- 9.1.23 Throughout the SA process, climate change has been considered under SA Objective 4 'Climate change mitigation' which seeks to minimise Wolverhampton's contributions towards climate change, and SA Objective 5 '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.

¹⁰⁴ Forest Research (2010) Benefits of green infrastructure. Available at: <https://www.forestresearch.gov.uk/publications/benefits-of-green-infrastructure/> [Date accessed: 10/09/24]

¹⁰⁵ Landscape Institute (no date) Green Infrastructure (GI). Available at: <https://www.landscapeinstitute.org/policy/green-infrastructure/> [Date accessed: 10/09/24]

¹⁰⁶ Natural England (2023) Green Infrastructure Framework. Available at: <https://www.gov.uk/government/news/natural-england-unveils-new-green-infrastructure-framework> [Date accessed: 05/08/24]

Box 9.1: Summary of key issues for climatic factors in Wolverhampton


Key issues for climatic factors include:



- ⇒ Flooding from main rivers is an issue across the WLP area. Surface water run-off management in the WLP area is an important issue on all developments of any size, clearly highlighting the need for a sustainable drainage system (SuDS) that maximise source control measures.
- ⇒ Climate change has the potential to increase the risk of fluvial and surface water flooding.
- ⇒ A range of further risks linked to climate change may affect the WLP area. These include the following:
 - an increased incidence of heat related illnesses and deaths during the summer, and injuries and deaths due to more storm and flooding events;
 - adverse effect on water quality from watercourse 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; and
 - increased drought and flood related problems such as soil shrinkages and subsidence.
- ⇒ GI should be enhanced and expanded to maximise ecosystem services and climate resilience.
- ⇒ New development needs to incorporate energy efficiency measures and climate change adaptive features in order to respond to predicted levels of climate change.

9.2 Impacts on climatic factors

9.2.1 **Box 9.2** 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: Summary of identified effects on climatic factors


Impact on climatic factors	Summary of identified effect
 <p>Fluvial and surface water flood risk</p>	<p>Development within Flood Zones 2 or 3 (including 3a and 3b) will locate site end users in areas 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.</p> <p>The majority of allocated sites lie in Flood Zone 1; however, five sites (residential-led Sites H21, H24a, H24b and employment-led Sites E23 and E25) partially coincide with some areas of Flood Zones 2 and 3, which makes up approximately 11.68ha of allocated land. Sites E23 and E25 also lie partially within Indicative Flood Zone 3b indicating that flood risk will potentially increase in the future due to climate change.</p> <p>Additionally, development in areas of surface water flood risk may lead to safety implications for site end users, and further exacerbate flood risk in the surrounding area. A total of 28 allocated sites coincide with varying extents of surface water flood risk, including five sites with some land identified as high risk.</p> <p>The Level 2 SFRA (2024) highlights a number of allocations that are sensitive to changes in fluvial and surface water flood risk due to climate change.</p>

Impact on climatic factors	Summary of identified effect
 <p>Increased GHG emissions</p>	<p>The proposed development of 9,330 dwellings and 42.9ha of employment floorspace within the WLP area will be likely to increase GHG emissions to some extent through 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 / release of embodied carbon associated with redevelopment sites. This impact will be expected to contribute towards cumulative effects which exacerbate global climate change issues such as sea level rise and extreme weather events.</p>
 <p>Loss of multi-functional green infrastructure</p>	<p>The proposed development within the WLP will cumulatively result in the loss of a significant area of previously undeveloped land or land with environmental/ecological value, despite there being 16 allocated sites wholly situated on previously developed land. Some of the proposed development could potentially also result in the loss of trees, hedgerows and other vegetation currently on site. Multi-functional GI is vital in helping to reduce adverse impacts of climate change.</p>

9.3 Local Plan mitigation

9.3.1 The contents of the WLP would be likely to help reduce the adverse impacts of the Plan in relation to climatic factors, with policies focusing on delivering new development that incorporates GI and seeks opportunities to use renewable or low carbon energy sources, and encouraging sustainable and low-emission travel. Policies which are anticipated to help mitigate the impacts identified in **Box 9.2**, are discussed in **Box 9.3**.

Box 9.3: Mitigating effects of the WLP planning policies on climatic factors

Policy mitigation for climatic factors	Summary of mitigating effect
 <p>Fluvial and surface water flood risk</p>	<p>Policy ENV12 'Flood risk and water quality' requires the Sequential Test to be applied to ensure development is in areas of the lowest flood risk. Furthermore, development proposals are to incorporate natural flood management measures to reduce the risk of flooding within the WLP area.</p> <p>Policy ENV13 'Sustainable drainage systems and surface water management' requires development proposals to incorporate sustainable water drainage strategies that include SuDS, and requires major developments to ensure the reduction of surface water flows to equivalent greenfield rates.</p> <p>Policy ENV13 and several other policies including CSP1 'Spatial Strategy', ENV8 'Open Space, Sport and Recreation', ENV9 'Playing Fields and Sports Facilities' and ENV10 'High quality design', will protect and enhance the GI and BI network within the WLP area, which provides multifunctional benefits including for alleviating flood risk and storage of water.</p> <p>Policy CPS2 'Placemaking: achieving well designed places' encourages well designed places, including open spaces, where the policy states "<i>properly designed and well-located open spaces will mitigate flood risk</i>".</p>

Policy mitigation for climatic factors	Summary of mitigating effect
 <p>Increased GHG emissions</p>	<p>Policy ENV11 'Air quality' will require development proposals to promote the use of pedestrian and cycle routes, access to rail, the metro and bus transport networks, and provide electric car charging points. These measures will be expected to support a modal shift to the use of public transport and more sustainable travel options. In terms of GHG emissions, electric vehicles are an effective alternative to petrol or diesel-powered vehicles as they emit fewer, or zero, air pollutants including CO₂. By discouraging the use of the private car, this policy will be expected to help reduce transport-associated emissions and decrease overall GHG emissions.</p> <p>Policy ENV14 'Energy and sustainable design' will promote on-site renewable or low carbon technologies to be incorporated within new development. This will help to decrease reliance on energy generated from unsustainable sources, such as fossil fuels, consequentially reducing GHG emissions in the WLP area.</p> <p>Policy TRAN1 'Priorities for the development of the Transport Network' will help to facilitate a modal shift away from private car use to public transport use and active travel, reducing transport-associated emissions of GHGs. Underpinning Policy TRAN1, Policies TRAN5 'Creating coherent networks for cycling and for walking', TRAN6 'Influencing the demand for travel and travel choices' and TRAN7 'Parking management' will promote sustainable modes of transport and active transport that will help in the reduction of transport-associated emissions of GHGs. Furthermore, Policy TRAN8 'Planning for low emission vehicles' will encourage the exploration of alternative low emission vehicle technologies and ensure appropriate infrastructure is within the WLP area to encourage low emission vehicle uptake.</p> <p>Several policies including Policies CSP1 'Spatial Strategy', ENV8 'Open Space, Sport and Recreation' and ENV10 'High quality design', will protect and enhance the GI network within the WLP area, that provides ecosystem services such as carbon sequestration and storage.</p>
 <p>Loss of multi-functional green infrastructure</p>	<p>Under Policy CSP1 'Spatial Strategy' the majority of development will be located within the existing urban areas and maximising use of previously developed land, thereby helping to safeguard greenfield and undeveloped land elsewhere.</p> <p>Several policies including Policy ENV3 'Nature Recovery and Biodiversity Net Gain', ENV8 'Open Space, Sport and Recreation', Policy ENV9 'Playing Fields and Sports Facilities' and Policy ENV10 'High quality design', will protect and enhance the GI network within the WLP area, that will provide multi-functional benefits including for conservation of soils.</p> <p>Policy ENV7 'Canal network' recognises the importance of the canal network in relation to Wolverhampton's green and blue infrastructure and ecological network and will seek to protect and enhance these features.</p> <p>Policy ENV4 'Trees and hedgerows' aims to create, retain and protect trees, woodland and hedgerows, including a target for achieving 20% canopy cover by 2035, which will be likely to contribute towards ecosystem services and climate change resilience, including providing urban cooling functions.</p>

9.4 Residual effects on climatic factors

9.4.1 The WLP sets out several policies which aim to help mitigate the adverse impacts relating to climatic factors (see **Box 9.3**). However, the implementation of these requirements will not be expected to fully mitigate the adverse impacts associated with net increases in GHGs. **Box 9.4** lists the likely residual effects of the WLP in relation to climatic factors.

Box 9.4: Residual effects for climatic factors

Residual effects	Further details of the residual effect
<p style="text-align: center;">1</p> <p style="text-align: center;">Fluvial and surface water flood risk</p>	<p>The Level 2 SFRA (2024) sets out a range of requirements for developers, including to ensure that flood risk is fully explored at the planning application stage, underground culverts are opened up to restore natural drainage, development is designed to accommodate the floodplain, SuDS are well designed to reduce surface run-off and improve water quality and that water companies are consulted to ensure the aims of drainage and wastewater management plans can be met. Various WLP policies as detailed in Box 9.3 reflect these recommendations.</p> <p>The SFRA also includes information relating to each WLP site allocation affected by flood risk, and provides detail on how the Sequential Test can be met for each, and highlights which sites are likely to require application of the Exception Test.</p> <p>CWC has ensured that development is directed in the first instance towards sites at the lowest risk of flooding based on the SFRA mapping, and considers that the Sequential Test has been met for all of the WLP site allocations. Assuming that the measures as highlighted in the SFRA are undertaken to allow the development to proceed, and the Exception Test applied where necessary, there are anticipated to be no significant adverse effects associated with development proposed in the WLP on fluvial or surface water flooding.</p>
<p style="text-align: center;">2</p> <p style="text-align: center;">Increased GHG emissions</p>	<p>The proposed development associated with the WLP of 9,330 dwellings and 42.9ha of employment floorspace will be anticipated to increase GHG emissions with increased domestic and traffic emissions and a greater demand for energy.</p> <p>Whilst the policies detailed in Box 9.3 will be expected to contribute positively to reducing GHG emissions particularly through efficient design, the encouragement of sustainable and active methods of transport as well as the use of low carbon energy sources, these will not be expected to fully mitigate the impacts associated with the large quantum of growth planned through the WLP.</p> <p>An increase in GHG emissions as a consequence of the proposed WLP development is expected to be a long-term significant effect.</p>
<p style="text-align: center;">3</p> <p style="text-align: center;">Loss of multi-functional green infrastructure</p>	<p>Although there may be some loss of previously undeveloped land associated with development sites that comprise or contain greenfield land, as detailed in Box 9.3 various WLP policies seek to conserve and enhance multi-functional green and blue infrastructure across the Plan area as a whole, including through incorporation of GI in new development including trees, hedgerows, green roofs and walls and water features and increasing connectivity to the wider GI network.</p> <p>Through supporting the provision of GI across the Plan area and mitigating potential harmful impacts of development, a positive effect is identified in terms of promoting resilience to climate change in Wolverhampton.</p>

10 Cultural heritage

10.1 Baseline

10.1.1 Historic environment priorities from international to local levels seek to address a range of issues, particularly in relation to the conservation and enhancement of heritage assets that are irreplaceable and play an important role in placemaking and the quality of life.

10.1.2 National and local policy and guidance seeks to protect the significance of designated and non-designated heritage assets and their settings.

10.1.3 Various PPPs seek to ensure that cultural aspects of landscapes are recognised and protected against inappropriate development, encourage recognition of the potential and actual value of unknown and undesignated assets, as well as the conservation and enhancement of sites and landscapes of archaeological and heritage interest so that they may be enjoyed by both present and future generations.

Designated features

10.1.4 Wolverhampton has a rich industrial history, previously being a medieval town which is estimated to have originated as a Mercian royal estate¹⁰⁷. Some of the oldest historic assets include a late Saxon Cross in Wolverhampton. Many of the listed buildings and other designated heritage assets within the Plan area are associated with the numerous warehouses, factories, and network of canals that were opened during the Industrial Revolution, as well as the main town centre of Wolverhampton.

10.1.5 There are two Registered Parks and Gardens (RPG), four Scheduled Monuments (SM), 31 conservation areas (CA), two Grade I, 23 Grade II* and 352 Grade II Listed Buildings located within the Plan area. Listed buildings within the WLP area are shown in **Figure 10.1**. SMs, RPGs and CAs in and around Wolverhampton are shown in **Figure 10.2**.

10.1.6 Since 2008, Historic England has released an annual Heritage at Risk Register, which in Wolverhampton includes¹⁰⁸:

- Bilston Town Centre, CA – very bad condition
- Bilston Canal Corridor, CA – very bad condition
- Bushbury Hill, CA – very bad condition
- Cleveland Road, CA – very bad condition
- Park, CA – poor condition
- Springfield Brewery, CA – very bad condition
- The Oaks (Merridale Road), CA – very bad condition
- Union Mill, CA – very bad condition
- Worcester Street, CA – very bad condition
- Methodist Church, Grade II* Listed Building – poor condition

¹⁰⁷ Black County History. Wolverhampton: Medieval Town. Available at: <https://www.blackcountryhistory.org/> [Date accessed: 10/09/24]

¹⁰⁸ Historic England Heritage at Risk Register. Available at: <https://historicengland.org.uk/advice/heritage-at-risk/search-register> [Date accessed: 10/09/24]

- Catholic Church of St Mary and St John, Grade II* Listed Building – poor condition
- Church of St Paul, Grade I Listed Building – poor condition
- Church of St Leonard, Grade II Listed Building – poor condition
- Church of St Martin and attached cloister and vicarage, Grade II Listed Building – poor condition
- The Greyhound and Punchbowl Inn (formerly Stow Heath Manor House), Grade II* Listed Building – very bad condition
- Church of St Luke, Grade II* Listed Building – poor condition

10.1.7 Impacts on heritage assets will be largely determined by the specific layout and design of development proposals, as well as the nature and significance of the heritage asset. The level of the impact has been assessed based on the nature and significance of, and proximity of the proposal to, the heritage asset in question.

10.1.8 Adverse impacts on heritage assets can include direct loss or truncation of an asset, impacts on the existing setting of the asset and the character of the local area, as well as adverse impacts on views of, or from, the asset. These negative impacts are expected to be long-term and irreversible.

10.1.9 It is assumed that designated heritage assets will not be lost as a result of development, unless otherwise specified by the WLP. It is anticipated that the WLP will require a Heritage Statement and/or Archaeological Desk-Based Assessment to be prepared to accompany future planning applications, where appropriate. The Heritage Statement should describe the significance of any heritage assets affected by the proposals, including any contribution made by their settings.

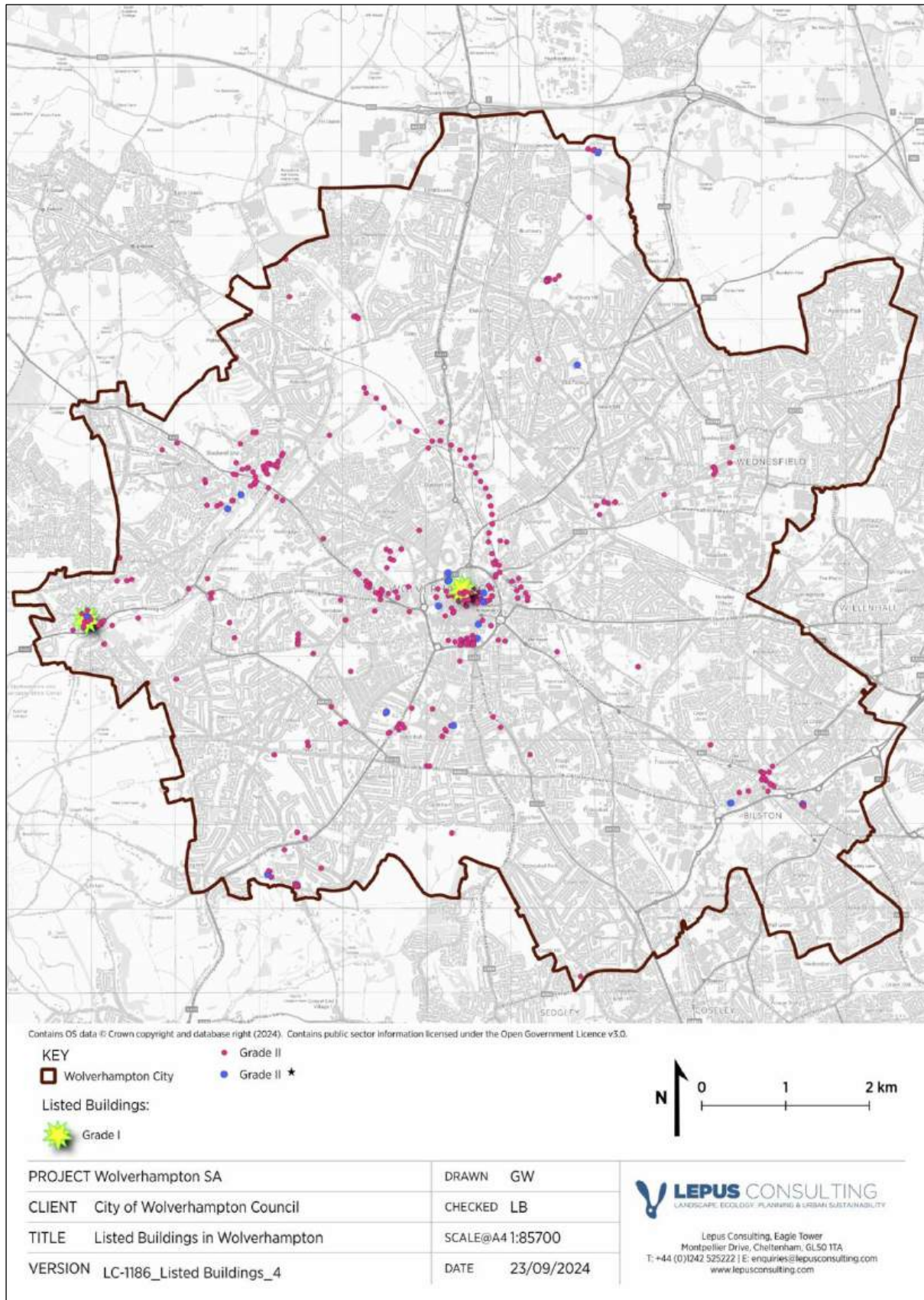


Figure 10.1: Listed Buildings in Wolverhampton

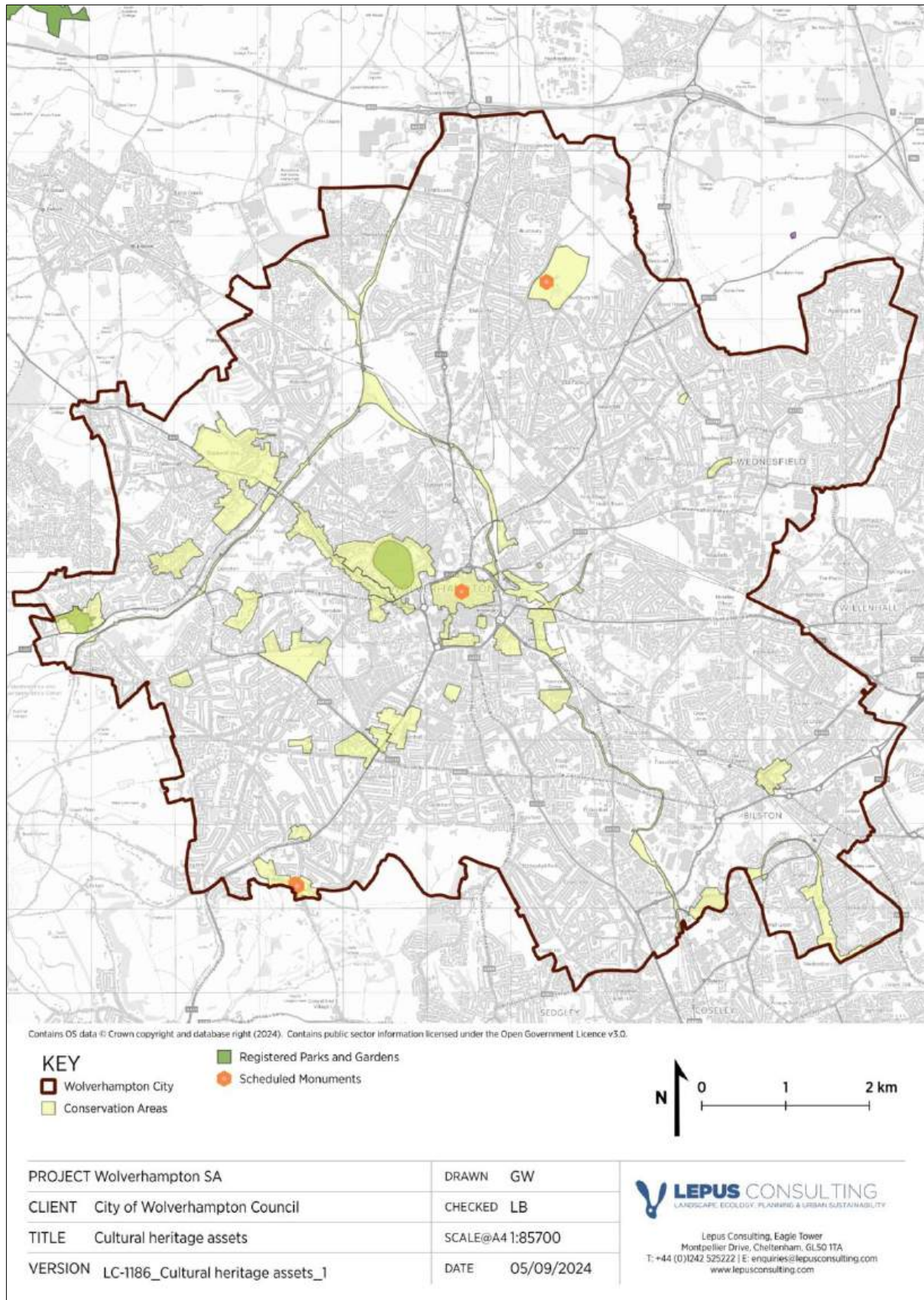


Figure 10.2: Cultural heritage assets in Wolverhampton

Non-designated features

- 10.1.10 Non-designated features comprise a significant aspect of heritage. This may include buildings and other features of historic interest which are not listed, as well as both discovered and undiscovered archaeological remains.
- 10.1.11 The Black Country Historic Landscape Characterisation (HLC) Study¹⁰⁹ aimed to create a strategic landscape-level understanding of the historic character and environment of the Black Country. The HLC identified several Historic Environment Area Designations (HEADs), including Archaeological Priority Areas (APAs), which are defined as “*sites with a high potential for archaeological remains of regional or national significance that have not been considered for designation as scheduled monuments, or where there is insufficient data available about the state or preservation of any remains to justify a designation*”. APAs were identified using Historic England guidance regarding nationally important but non-scheduled monuments¹¹⁰.
- 10.1.12 Areas of High Historic Townscape Value (AHHTVs) and Designed Landscapes of High Historic Value (DLHHVs) have also been identified within the HLC. AHHTVs are areas “*where built heritage makes a significant contribution to the local character and distinctiveness*” and have been identified due to their sense of place, street plan and form, streetscape, views and setting, and representation. DLHHVs are “*designed landscapes that make an important contribution to local historic character but do not meet the criteria for inclusion on the national Register of Parks and Gardens*” and have been identified due to the date, preservation, aesthetics, and associations with people and past events.
- 10.1.13 Maintaining local distinctiveness, character and sense of place alongside delivering development can present challenges, but can also stimulate new investment and potentially enhance townscapes or better reveal heritage assets. Historic England advocate seeking opportunities for delivering heritage-led regeneration¹¹¹, creating, revealing or enhancing local distinctiveness, encouraging the use of traditional building skills, and promoting climate change resilience and innovative reuse of historic buildings where appropriate. Engaging with and celebrating cultural heritage also provides a number of opportunities to benefit wellbeing, social inclusion and equality¹¹².
- 10.1.14 The Queen Street Gateway Townscape Heritage Scheme¹¹³ is a local heritage initiative within Wolverhampton. The scheme is supported by heritage lottery funding and will provide assistance towards the cost of external repairs and enhancements to Queen Street’s historic buildings.

¹⁰⁹ Oxford Archaeology (2019) Black Country Historic Landscape Characterisation Study. Available at: <https://blackcountryplan.dudley.gov.uk/t2/p4/t2p4h/> [Date accessed: 10/09/24]

¹¹⁰ Historic England. Scheduled Monuments. Available at: <https://historicengland.org.uk/listing/what-is-designation/scheduled-monuments/> [Date accessed: 10/09/24]

¹¹¹ Deloitte (2017) Heritage Works: A toolkit of best practice in heritage regeneration. Available at: <https://historicengland.org.uk/images-books/publications/heritage-works/> [Date accessed: 05/08/24]

¹¹² 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/> [Date accessed: 05/08/24]

¹¹³ City of Wolverhampton Council (2019). The Queen Street Gateway Townscape Heritage Scheme. Available at: www.wolverhampton.gov.uk/visiting/local-history-heritage/queen-street-gateway [Date accessed: 13/09/24]

10.1.15 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.

Box 10.1: Summary of key issues for cultural heritage in Wolverhampton


Key issues for cultural heritage include:


- ⇒ Even though heritage assets will continue to benefit from legislative protection, development in the WLP area 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 have the potential to be affected by new development areas.

10.2 Impacts on cultural heritage

10.2.1 **Box 10.2** 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: Summary of identified effects on cultural heritage



Impact on cultural heritage	Summary of identified effect
 <p>Alter character and/or setting of designated heritage assets</p>	<p>Development which coincides with or is located in close proximity to heritage assets 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.</p> <p>Site H13 coincides with Grade II Listed Building ‘Pipe Hall’ (listed as ‘Top Cats Night Spot’) and Sites E6 and E7 are located adjacent to ‘Viaduct on Stour Valley Line’ and ‘no 16 and 17 Birmingham Canal locks’ Grade II Listed Buildings. The proposed development at a further two allocated sites (H8 and H12) are located in close proximity to Grade II Listed Buildings.</p> <p>Four allocated sites are located wholly or partially within a conservation area (CA). Sites H12 and H13 are located within ‘Bilston Town Centre’ CA and Sites H14 and E15 are located within ‘Bilston Canal Corridor’ CA, where new development will have potential to affect the character of the CA. Some 10 allocated sites are located adjacent or in close proximity to CAs, with potential to affect the setting of the CAs. It is however acknowledged that the replacement of buildings which currently have 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).</p> <p>No allocated sites are expected to affect SMs or RPGs, or their settings.</p>

Impact on cultural heritage	Summary of identified effect
 <p>Effects on non-designated heritage assets and historic character</p>	<p>The Black Country Historic Landscape Characterisation (HLC) Study¹¹⁴ identified a number of Archaeological Priority Areas (APAs), where the potential for archaeological remains to be present is considered medium to high. Three allocated sites (H12, H13 and E16) coincide with APAs, where development will have potential to affect the setting of the APAs.</p> <p>Several Areas of High Historic Townscape and Landscape Value (AHHTVs / AHHLVs) and Designed Landscapes of High Historic Value (DLHHVs) were also identified within the Black Country HLC, comprising areas or landscapes which make an important contribution to historic character. Four allocated sites (H1, H8, H14 and H24d) are located within a AHHTV and have potential to affect the setting of these historic features.</p>

10.3 Local Plan mitigation

10.3.1 The WLP policies, namely ENV5, seek to conserve and enhance cultural heritage features and the wider historic environment alongside the proposed development, as discussed in **Box 10.3**.

Box 10.3: Mitigating effects of the WLP planning policies on cultural heritage

Policy mitigation for cultural heritage	Summary of mitigating effect
 <p>Alter character and/or setting of designated heritage assets</p>	<p>Policy ENV5 'Historic character and local distinctiveness' requires all development to conserve and enhance designated heritage assets. Furthermore, the policy requires that the scale and design of development is informed by the local character and distinctiveness of the area to enhance local distinctiveness and the settings of heritage assets.</p> <p>Several policies including CPS2 'Placemaking: achieving well designed places', ENV10 'High quality design' and CEN2 'Wolverhampton's centres' seek to protect the historic landscape and townscape character and local distinctiveness of Wolverhampton through ensuring high quality design protects and enhances heritage assets.</p>
 <p>Effects on non-designated heritage assets and historic character</p>	<p>Policy ENV5 'Historic character and local distinctiveness' requires all development to conserve and enhance non-designated assets and will ensure the scale and design of development is informed by local character and distinctiveness.</p> <p>Policies ENV6 'Geodiversity and the Black Country UNESCO Global Geopark' and EMP6 'Cultural facilities and the visitor economy' seek to protect geological and historic assets through encouraging and supporting heritage related tourism, ensuring the local historic character and geodiversity are maintained and appreciated by the local community.</p> <p>Policy CEN2 'Wolverhampton's centres' seeks to protect Wolverhampton's historic landscape/townscape character and local distinctiveness through ensuring high quality design that protects and enhances heritage assets.</p> <p>Policy ENV7 'Canal network' will require development proposals to protect and enhance the historic features of the canal network which could lead to benefits to the surrounding character and appearance of historic assets.</p>

¹¹⁴ Oxford Archaeology (2019) Black Country Historic Landscape Characterisation Study. Available at: <https://blackcountryplan.dudley.gov.uk/t2/p4/t2p4h/> [Date accessed: 27/08/24]

10.4 Residual effects on cultural heritage

10.4.1 Drawing on the provisions of the WLP policies mentioned in **Box 10.3**, potential residual impacts of the proposed allocations on cultural heritage are discussed in table **Box 10.4**.

Box 10.4: Residual effects for cultural heritage

Residual effects	Further details of the residual effect
<p style="text-align: center;">1</p> <p style="text-align: center;">Alter character and / or setting of designated heritage assets</p>	<p>Adverse impacts on the character and setting of designated heritage assets including listed buildings, CAs, and their settings are anticipated to be mitigated through various WLP policies such as ENV5 'Historic character and local distinctiveness' as well as more area-specific policies such as CEN2 'Wolverhampton's centres'.</p> <p>A range of plans, programmes and legislation including the NPPF and Black Country Historic Landscape Characterisation Study, as well as local guidance also affords protection to heritage assets in line with their significance.</p> <p>The WLP will be expected to help avoid or mitigate the potential for significant impacts on designated heritage assets arising from proposed development, with a negligible impact identified overall.</p>
<p style="text-align: center;">2</p> <p style="text-align: center;">Effects on non-designated heritage assets and historic character</p>	<p>Across Wolverhampton potential adverse impacts which may occur as a result of development proposed through the WLP on APAs, AHHTVs and AHHLVs identified in the Black Country HLC will be expected to be mitigated through various WLP policies identified in Box 10.3, including EMP6 'Cultural facilities and the visitor economy'. Area-specific policies including CEN2 'Wolverhampton's centres' will be expected to conserve, enhance and protect the historic, archaeological and architectural assets present within the heart of Wolverhampton which may lead to further benefits for the Plan area including regeneration and redevelopment of medieval settlement centres (Wolverhampton city centre) as well as the historic canal corridors. Overall, a positive effect is identified in protecting Wolverhampton's historic environment.</p>

11 Human health

11.1 Baseline

11.1.1 National and local health strategies and policies seek to promote the development of healthy communities, such as through delivering age-friendly environments for the elderly, encouraging healthier food choices and facilitating active travel. In line with the NPPF, LPAs 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.

11.1.2 Key PPPs include Public Health England's Strategy for 2020–2025¹¹⁵ which sets out priorities within the health system including a focus on addressing health inequalities, an issue that is particularly relevant within the Black Country.

Air quality

11.1.3 As discussed in **Chapter 7** of this report, the entirety of the WLP area is designated as AQMA¹¹⁶. Development proposals within 200m of AQMAs or main roads will be likely to expose site end users to transport associated noise and air pollution, with adverse impacts on health and wellbeing¹¹⁷.

11.1.4 As all the proposed development within the WLP is located within an AQMA, this is likely to lead to adverse impacts on health and may prevent CWC from achieving air quality targets. It is assumed that new development proposals within Wolverhampton would also result in an increase in traffic and thus traffic-related air pollution. Both existing and future residents would be exposed to this change in air quality.

Health and wellbeing

11.1.5 Estimates of personal wellbeing in the UK are published by the ONS annually, with scores for anxiety, happiness, life satisfaction, and feeling that life is worthwhile. Overall scores are based on surveying a representative sample of the population and are scored out of 10 (e.g. for happiness 0 is 'not at all happy' and 10 is 'completely happy')¹¹⁸.

11.1.6 Levels of reported anxiety in Wolverhampton were 1.8 in 2014 and 3.1 in 2023; in the rest of England average levels of anxiety are currently 3.2. Reported levels of happiness in Wolverhampton in 2023 were 7.5, in line with the England average and up from 7.2 in 2014. Wolverhampton is the 7th happiest metropolitan district in England. Life satisfaction scores in Wolverhampton for 2023 are 7.3 and were 7.0 in 2014.

¹¹⁵ Public Health England (2019) PHE Strategy 2020 to 2025. Available at: <https://www.gov.uk/government/publications/phe-strategy-2020-to-2025> [Date accessed: 05/08/24]

¹¹⁶ Black Country Air Quality Supplementary Planning Document (SPD) September 2016. Available at: <https://www.dudley.gov.uk/media/6381/adopted-black-country-air-quality-spd-september-2016.pdf> [Date accessed: 10/09/24]

¹¹⁷ Department for Transport (2022) 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 [Date accessed: 10/09/24]

¹¹⁸ Demographics of Wolverhampton. Available at: <https://www.varbes.com/demographics/wolverhampton-demographics> [Date accessed: 10/09/24]

11.1.7 The health and wellbeing of residents in Wolverhampton is varied; whilst Wolverhampton performs better than the regional and national average for some key health indicators as shown in **Table 11.1**, including a lower suicide rate, the borough shows a slightly higher than average proportion of overweight adults and lower average life expectancy.

Table 11.1: Health statistics for Wolverhampton in comparison with the regional and national average (2023)¹¹⁹

	Deprivation score (IMD 2019)	Male life expectancy (yrs)	Female life expectancy (yrs)	Suicide rate (per 100,000)	Physically active adults (%)	Overweight / obese adults (%)
Wolverhampton	32.1	77.4	81.0	8.3	55.8	70.6
West Midlands	25.3	78.7	82.6	10.7	64.0	67.0
England	21.7	79.3	83.2	10.3	67.1	64.0

Healthcare facilities

11.1.8 In order to facilitate healthy and active lifestyles for existing and new residents, the WLP should seek to ensure that residents have good access to NHS hospitals and GP surgeries.

11.1.9 There is one NHS hospital with an A&E department located within Wolverhampton (New Cross Hospital) and a total of 61 healthcare centres. Ideally, residents should be within an approximate ten-minute walking distance to their nearest GP surgery, whilst a hospital within 5km would be considered a sustainable distance. **Figure 11.1** shows the proportion of Wolverhampton within a sustainable 15-minute walking distance or travel time via public transport to a GP surgery. **Figure 11.2** shows the location of NHS hospitals with respect to Wolverhampton; the eastern WLP area also falls within the 5km target distance of Manor Hospital, located in the adjacent district of Walsall.

11.1.10 New housing developments can increase demand on local healthcare services. The government provides guidance for general practice capacity for large scale developments¹²⁰ as well as resources for planning and designing healthier places¹²¹.

¹¹⁹ Office for Health Improvement & Disparities (2024) Local Authority Health profiles: Wolverhampton. Available at: <https://fingertips.phe.org.uk/profile/health-profiles/data#page/1/gid/1938132701/pat/6/ati/501/are/E08000031/iid/90366/age/1/sex/1/cat/-1/ctp/-1/yr/3/cid/4/tbm/1> [Date accessed: 16/07/24]

¹²⁰ UK Parliament (2022) General practice capacity for large-scale housing developments. Available at: <https://commonslibrary.parliament.uk/research-briefings/cdp-2022-0067/> [Date accessed: 16/07/24]

¹²¹ 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 [Date accessed: 16/07/24]

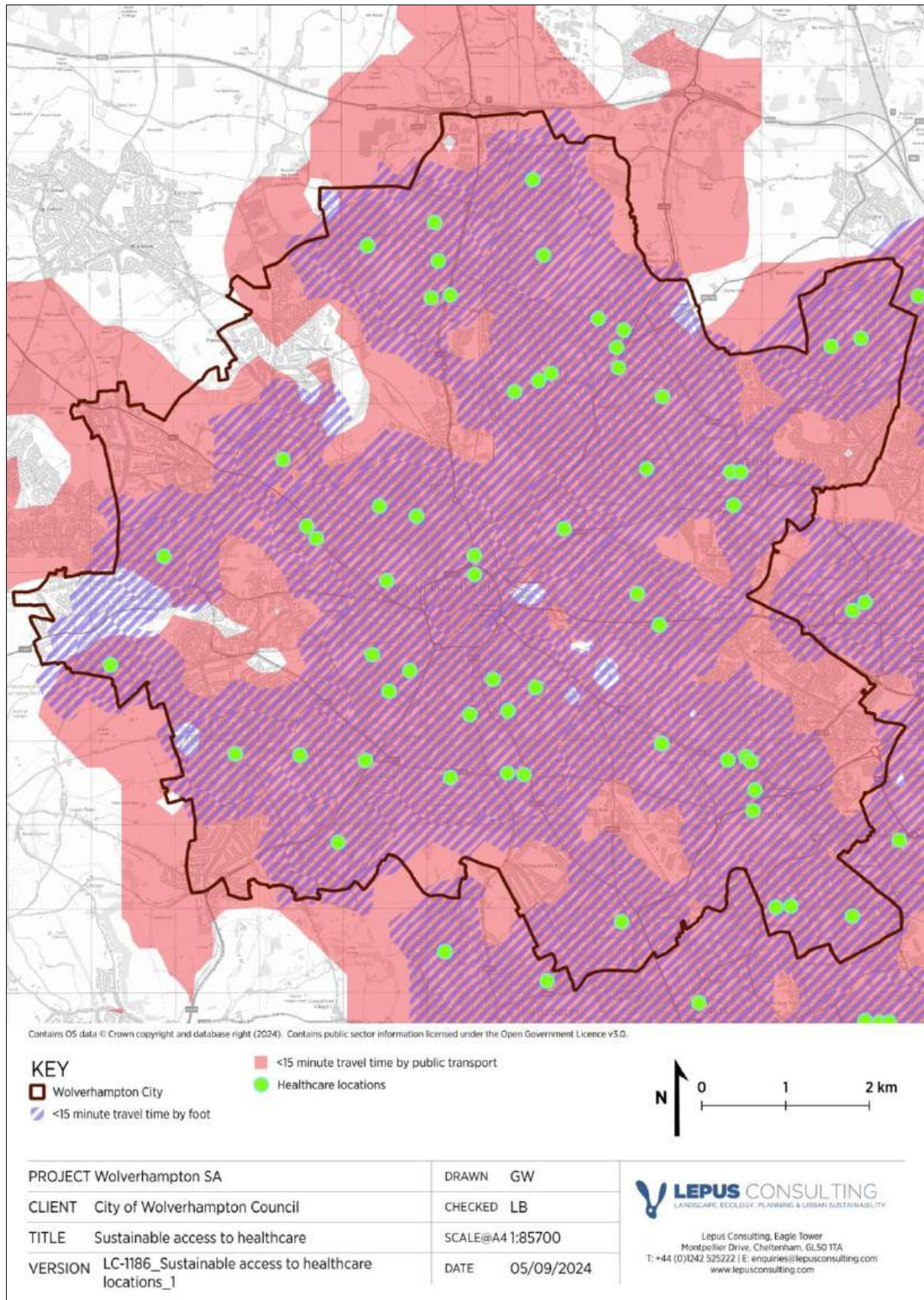


Figure 11.1: Travel times to healthcare in Wolverhampton

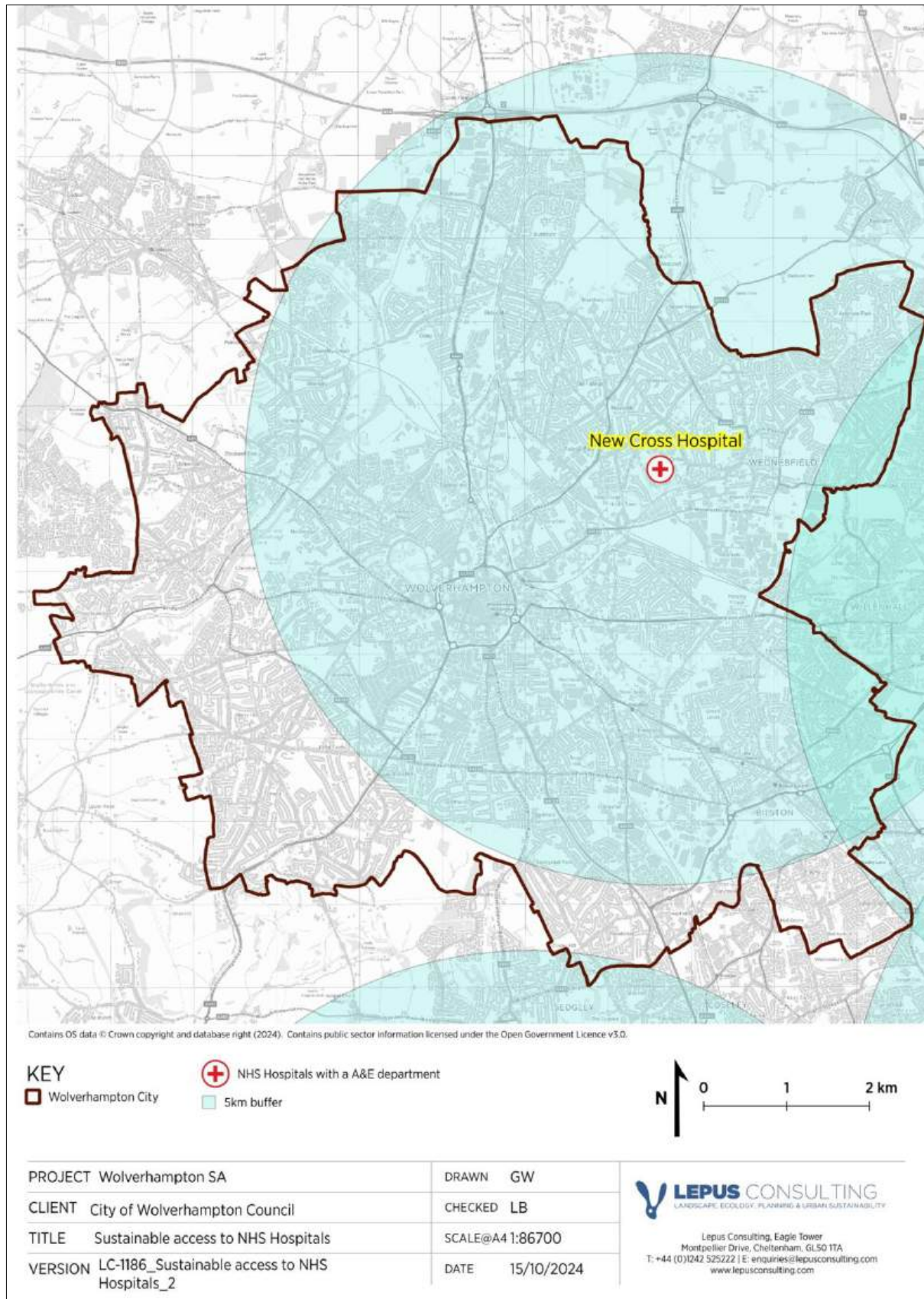


Figure 11.2: Travel times to NHS hospitals in Wolverhampton

Green spaces and natural habitats

- 11.1.11 In line with the NPPF, LPAs should seek to promote social interaction, create communities which are safe and accessible, and provide a range of GI and sports facilities. Opportunities to experience a diverse range of natural habitats and recreational spaces is known to be beneficial for physical and mental health. Good access to such areas can reduce stress, fatigue, anxiety and depression¹²², as well as physical health indicators such as reduced rates of obesity and type 2 diabetes. Impacts of restricted access to the natural environment are particularly significant for lower socio-economic groups.
- 11.1.12 Within the WLP area and its surroundings, there is a rich and diverse range of public open spaces, formal parks, outdoor recreational spaces, as well as the PRow network and the canal system. 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.
- 11.1.13 The WLP area supports a network of biodiversity sites, providing local residents with opportunities to visit natural outdoor spaces and view wildlife. This includes LNRs and LWSs (see **Chapter 8** of this report). In addition to this, there are a variety of open space and recreational facilities: West Park, Northycote Farm, Country Park, WV Active Aldersley, Bilson-Bert Williams, WV Active Central and Wolverhampton Swimming and Fitness Centre. CWC has also produced an Open Space Strategy and Action Plan (2024)¹²³ which has assessed the current provision of open space and considering future and local needs to ensure residents have access to open and green spaces.

Health Impact Assessment

- 11.1.14 Health is influenced by numerous social, economic, environmental and cultural impacts¹²⁴. Whilst Health Impact Assessments (HIAs) are not statutory requirements for local plans, they can be a useful tool to ensure that local health needs have been considered, and to ensure that planning policies support healthy and happy communities.
- 11.1.15 In the absence of any locally/regionally specific HIA guidance or toolkits for Wolverhampton, the London Healthy Urban Development Unit (HUDU) Rapid HIA Tool¹²⁵ has been considered during the preparation of the SA/SEA. The rapid HIA tool provides an assessment matrix based on eleven topics, which have been embedded into the SA Framework (see **Appendix B**) which has been used to assess site allocations, policies and reasonable alternatives throughout the SA/SEA process.
- 11.1.16 **Table 11.2** indicates these HIA themes, and how they have been incorporated into the SA process. This is primarily within the assessments against SA Objective 12 – Health but also includes overlap with several other aspects of the SA Framework.

¹²² Houlden. V., Weich. S. and Jarvis. S. (2017) A cross-sectional analysis of green space prevalence and mental wellbeing in England.

¹²³ LUC (2024) Wolverhampton Open Space Strategy and Action Plan 2024-2039. Draft, July 2024.

¹²⁴ Department of Health (2010) Health Impact Assessment Tools. Available at: <https://www.gov.uk/government/publications/health-impact-assessment-tools> [Date accessed: 27/09/24]

¹²⁵ London Healthy Urban Development Unit (2019) HUDU Planning for Health: Rapid Health Impact Assessment Tool. Available at: <https://www.healthyrbandevelopment.nhs.uk/wp-content/uploads/2019/10/HUDU-Rapid-HIA-Tool-October-2019.pdf> [Date accessed: 27/09/24]

Table 11.2: Incorporation of Health Impact Assessment into the SA process

HUDU HIA topic	Relevance to the WLP policies and proposals	Consideration within the SA process
1. Housing design and affordability	The quality and design of housing, space standards, provision of a mixture of housing types to meet accessibility needs and increase affordability.	<ul style="list-style-type: none"> SA Objective 10 – Housing SA Objective 11 – Equality SA Objective 12 – Health
2. Access to health and social care services and other social infrastructure	Provision of, and accessibility to, healthcare facilities and social infrastructure including local services, schools and higher education opportunities.	<ul style="list-style-type: none"> SA Objective 9 – Transport and Accessibility SA Objective 12 – Health SA Objective 14 – Education, Skills and Training
3. Access to open space and nature	Provision or enhancement of open spaces and GI including natural green spaces, opportunities for leisure and recreation and play space for children, and ensuring these spaces are safe and accessible for all.	<ul style="list-style-type: none"> SA Objective 2 – Landscape SA Objective 3 – Biodiversity, Flora, Fauna and Geodiversity SA Objective 11 – Equality SA Objective 12 – Health
4. Air quality, noise and neighbourhood amenity	Minimising the generation of, and exposure to, air and noise pollution from traffic and other uses, and dust, vibration and odours from construction.	<ul style="list-style-type: none"> SA Objective 7 – Pollution SA Objective 12 – Health
5. Accessibility and active travel	Creation of a safe, accessible and well-connected public realm that prioritises walking and cycling and use of public transport over private cars.	<ul style="list-style-type: none"> SA Objective 9 – Transport and Accessibility SA Objective 12 – Health
6. Crime reduction and community safety	Reducing crime through design, to create attractive and multi-use spaces that address local issues and allow people to feel secure	<ul style="list-style-type: none"> SA Objective 11 – Equality
7. Access to healthy food	Provision of, and accessibility to, local services including healthy food options and avoiding over-concentration of hot food takeaways.	<ul style="list-style-type: none"> SA Objective 10 – Transport and Accessibility SA Objective 12 – Health
8. Access to work and training	Provision of, and accessibility to, local employment and training opportunities and healthy workplaces.	<ul style="list-style-type: none"> SA Objective 13 – Economy SA Objective 14 – Education, Skills and Training
9. Social cohesion and inclusive design	Provision of, and accessibility to, inclusive and age-friendly local services and facilities with opportunities for community adhesion that seek to reduce inequalities.	<ul style="list-style-type: none"> SA Objective 9 – Transport and Accessibility SA Objective 11 – Equality EqlA (see Appendix K)
10. Minimising the use of resources	Encouraging sustainable construction and design principles to make the best use of existing land and resources, and encourage recycling of waste.	<ul style="list-style-type: none"> SA Objective 6 – Natural Resources SA Objective 8 – Waste
11. Climate change	Provision of new buildings and public spaces that promote resilience to changing climates, enhance biodiversity and incorporate renewable energy and sustainable flood management techniques.	<ul style="list-style-type: none"> SA Objective 3 – Biodiversity, Flora, Fauna and Geodiversity SA Objective 4 – Climate Change Mitigation SA Objective 5 – Climate Change Adaptation

Box 11.1: Summary of key issues for human health in Wolverhampton




Key issues for human health include:

- ⇒ As all the proposed development within the WLP is located within an AQMA, this is likely to lead to adverse impacts on health, without intervention.
- ⇒ The increasing population in the City of Wolverhampton could have place pressure on the capacity of health infrastructure and leisure facilities.
- ⇒ The life expectancy of men and women is anticipated to rise over time, in line with national trends, leading to a greater proportion of older residents with specific needs for housing and services.
- ⇒ Residents in Wolverhampton have a slightly higher than average proportion of overweight adults and lower average life expectancy in comparison to the West Midlands average and national average.

11.2 Impacts on human health

11.2.1 **Box 11.2** presents a plan-wide summary of the adverse impacts on human health that have been identified through the SA process, prior to mitigation considerations.

Box 11.2: Summary of identified effects on human health

Impact on human health	Summary of identified effect
 <p>Sustainable access to healthcare facilities</p>	<p>Wolverhampton benefits from the presence of many health facilities serving existing communities. New Cross Hospital located within Wolverhampton and Manor Hospital located within the neighbouring authority of Walsall provide A&E services, and most of the WLP area lies within sustainable travel times to GP surgeries.</p> <p>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. Two allocated sites (H14 and H20) are located outside of the 5km sustainable target distance to NHS hospitals providing an A&E service. Nine allocated sites are located outside of the 15-minute travel time via walking or public transport to GP surgeries.</p>
 <p>Exposure to air / noise pollution (from AQMAs / main roads)</p>	<p>The long-term health of residents, in particular vulnerable groups including children and the elderly, could be adversely affected by local reductions in air quality. Development within Wolverhampton AQMA or within 200m of a main road could potentially expose site end users to increased levels of traffic related air pollution or noise impacts, with adverse implications for health. This impact is discussed further in Chapter 7.</p>
 <p>Net loss of public greenspace</p>	<p>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. All allocated sites are located within sustainable distance to public green or open spaces, however six allocated sites (H3, H7, H24b, H24d, E12 and E14) have potential to result in a net loss of green space owing to the presence of existing green spaces within the indicative red line development boundaries. For example, Site H24b coincides with 'Alamein Road' Open Space and Site E14 coincides with 'Willenhall Road' Open Space.</p>

11.3 Local Plan mitigation

11.3.1 Several policies aim to promote healthy and active lifestyles and improve access to healthcare facilities and open space. Mitigation for the identified effects in **Box 11.2** is discussed further in **Box 11.3**.

Box 11.3: Mitigating effects of the WLP planning policies on human health

Policy mitigation for human health	Summary of mitigating effect
 <p>Sustainable access to healthcare facilities</p>	<p>Policies HW1 'Health and wellbeing', HW3 'Healthcare facilities' and TRAN1 'Priorities for the development of the Transport Network' seek to promote the health and wellbeing of residents across new development as well as seeking to ensure current and future residents have access to the healthcare infrastructure they require and are able to travel to and from the facilities sustainably.</p> <p>Policy TRAN1 'Priorities for the development of the Transport Network' will provide improved transport infrastructure that will enable improved and more sustainable access to healthcare including hospitals and GP surgeries.</p> <p>Policy HW2 'Health Impact Assessments' also sets out the requirement of new development proposals to undertake an HIA which will be likely to ensure that developments do not adversely impact access to healthcare facilities, helping to ensure that demands can be met and ensuring development promotes healthy lifestyles.</p> <p>Policy HOU4 'Housing for people with specific needs' supports the development of care homes and facilities which could help to relieve pressure on healthcare facilities.</p>
 <p>Exposure to air / noise pollution (from AQMAs / main roads)</p>	<p>As discussed in Box 7.3, various WLP policies including Policy ENV11 'Air quality' will ensure air quality objectives can be met on new development sites and transport policies TRAN1 'Priorities for the development of the Transport Network', TRAN5 'Creating coherent networks for cycling and for walking' and TRAN6 'Influencing the demand for travel and travel choices' will help to promote sustainable and active modes of transport that will reduce transport-associated emissions of NO₂ and PM₁₀, improving air quality. WLP policies that will increase GI coverage (including ENV8 'Open Space, Sport and Recreation', ENV10 'High quality design' and ENV4 'Trees and hedgerows') will be likely to boost air filtration ecosystem services provided by trees and vegetation.</p>
 <p>Net loss of public greenspace</p>	<p>Policies ENV8 'Open space and recreation' and ENV9 'Playing fields and sports facilities' will seek to ensure that open space, sport and recreation facilities throughout the Plan area will be protected, managed and enhanced, in order to provide safe and accessible community facilities for existing and future residents.</p> <p>Policies ENV10 'High quality design', CSP2 'Placemaking: achieving well designed places', CEN2 'Wolverhampton's centres' and HOU10 'Housing density, type and accessibility' will be expected to ensure GI, multifunctional open, green and amenity spaces are incorporated into new development and the wider public realm.</p>

11.4 Residual effects on human health

11.4.1 Many of the policies would be expected to mitigate and result in positive impacts in relation to human health and wellbeing, as outlined in **Box 11.3**. Residual positive and negative effects of the WLP on human health are discussed in **Box 11.4**.

Box 11.4: Residual effects for human health

Residual effects	Further details of the residual effect
<p style="text-align: center;">1</p> <p>Sustainable access to healthcare facilities</p>	<p>The majority of site allocations within the WLP are located within a sustainable distance to healthcare facilities. Although the growth proposed through the WLP will be expected to increase demand for and pressure on existing healthcare facilities, the WLP policies detailed in Box 11.3 will help to prevent the loss of existing facilities and, coupled with policies that will improve public transport, will help to ensure that residents within Wolverhampton have improved sustainable access to healthcare facilities. Proposals for new facilities in accordance with the growth in the WLP area will ensure there is adequate capacity to support new and existing residents, reducing the potential for adverse effects; an overall negligible effect on access to healthcare is identified.</p>
<p style="text-align: center;">2</p> <p>Exposure to air / noise pollution (from AQMAs / main road)</p>	<p>As discussed in Box 7.4, and summarised Box 11.3, several of the WLP are expected to reduce the likelihood and extent of potential adverse impacts on human health and biodiversity assets regarding air pollution. However, as a result of the proposed development associated with the WLP including 9,330 homes and 42.9ha employment floorspace, the likely associated increases in traffic flows and reduction in air quality within an existing AQMA will be expected to have residual adverse effects which cannot be fully mitigated through the positive provisions of the WLP policies.</p> <p>Adverse effects on health as a result of poor air quality across Wolverhampton is expected to be a long term significant effect, although the extent of this impact may reduce over time as clean technologies improve.</p>
<p style="text-align: center;">3</p> <p>Net loss of public greenspace</p>	<p>As detailed in Box 11.3 various WLP policies seek to conserve and enhance multi-functional green and blue infrastructure across the Plan area including through incorporation of GI in new development and protecting and maintaining open and recreational green spaces and amenity facilities.</p> <p>The WLP policies will be expected to ensure that development proposals do not result in a loss of public greenspace across the WLP area, leading to a negligible overall effect. Further positive impacts on access to greenspace could be achieved in the longer term, through the provision of on-site or off-site GI provisions, dependent on more site-specific context and information.</p>

12 Landscape

12.1 Baseline

12.1.1 Landscape can be described as comprising natural, cultural, social, aesthetic and perceptual elements, this includes flora, fauna, soils, land use, settlement, sight, smells and sound¹²⁶. The link between landscapes and a range of other aspects can be provided with a close focus on GI provision, with multi-functional benefits. In this respect, policies advocate the provision of open space, green networks and woodland as opportunities for sport and recreation, creating healthier communities as well as supporting and enhancing biodiversity. National Design Guidance¹²⁷ advocates well-designed places that are functional, attractive and provide a sense of safety, inclusion and community cohesion.

Cannock Chase Area of Outstanding Natural Beauty (AONB)

12.1.2 Cannock Chase AONB is a nationally designated landscape, located approximately 7km to the north of the Plan area at its closest point. Whilst new development in the WLP could potentially lead to adverse impacts on the AONB, such as through increased visitor pressures (see also **Chapter 8** in terms of effects on Cannock Chase SAC), it is not anticipated that there would be any adverse visual impacts on the AONB as a result of development proposed within the WLP, due to the distance from the development to the AONB.

Green Belt

12.1.3 The WLP area is heavily urbanised, but also contains some areas within the Black Country Green Belt (see **Figure 12.1**) surrounding the West Midlands Conurbation. 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. New development could potentially increase noise and light pollution and reduce the perception of tranquillity in some areas.

12.1.4 Whilst the Green Belt is not a statutory landscape designation, it is a significant element of landscape protection in the area. The Green Belt is intended to¹²⁸:

- check the unrestricted sprawl of larger built-up areas;
- prevent neighbouring towns from merging into one another;
- assist in safeguarding the countryside from encroachment;
- preserve the setting and special character of historic towns; and
- assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

¹²⁶ 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> [Date accessed: 11/09/24]

¹²⁷ Ministry of Housing, Communities & Local Government (2021) National Design Guide: Planning practice guidance for beautiful, enduring and successful places. Available at: <https://www.gov.uk/government/publications/national-design-guide> [Date accessed: 11/09/24]

¹²⁸ NPPF (2019) Chapter 13: Protecting Green Belt land. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf [Date accessed: 11/09/24]

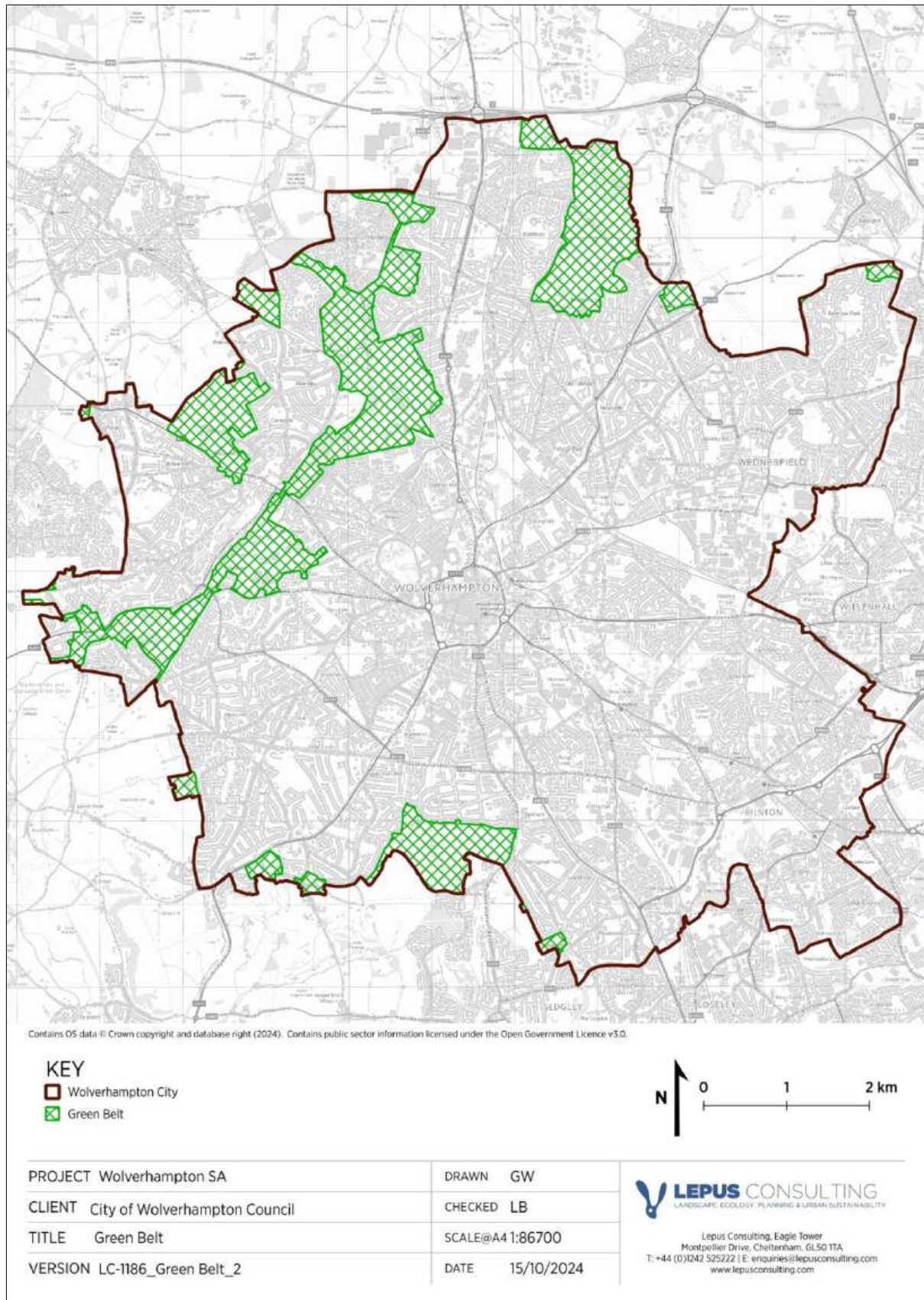


Figure 12.1: Areas of Green Belt within Wolverhampton

12.1.5 For the purposes of the WLP, CWC is not proposing to review the Green Belt. Should any potential for release of Green Belt land for development be considered in future local plan reviews, this should be informed by a Green Belt Study¹²⁹ to assess the potential harm caused to the purposes of the Green Belt by removing different land parcels.

12.1.6 Furthermore, information from the Landscape Sensitivity Assessment¹³⁰ or any subsequent update should be used to inform any future development in terms of the extent to which the character and quality of Green Belt land is susceptible to change as a result of future housing and commercial development.

Tranquillity

12.1.7 New employment, residential and retail growth can have significant effects on landscape quality, including through impacts of noise pollution, light pollution and broader effects on people's perceptions of tranquillity. Research in mapping the tranquillity of England has identified the Black Country, including the Wolverhampton, as amongst the least tranquil areas of the region¹³¹.

Townscape character

12.1.8 Townscapes can be defined as "*the landscape within the built-up area, including the buildings, the relationship between them, the different types of urban open spaces, including green spaces and the relationship between buildings and open spaces*"¹³².

12.1.9 The character of townscapes interacts strongly with cultural heritage and designations such as conservation areas (see **Chapter 10**). The Black Country HLC Study¹³³ identifies 12 Character Areas within Wolverhampton, as shown in **Figure 12.2**. The area's history and industrial legacy provides distinctive character and a sense of local identity but can also present challenges in terms of maintaining and enhancing the local character when historic buildings are no longer in active use.

12.1.10 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.

¹²⁹ LUC (2019) Black Country Green Belt Study. Available at: <https://blackcountryplan.dudley.gov.uk/t2/p4/t2p4i/> [Date accessed: 11/09/24]

¹³⁰ LUC (2019) Black Country Landscape Sensitivity Assessment. Available at: <https://blackcountryplan.dudley.gov.uk/t2/p4/t2p4i/> [Date accessed: 11/09/24]

¹³¹ CPRE (2008) Tranquillity Mapping: Developing a robust methodology for planning support. <https://www.cpre.org.uk/resources/tranquillity-mapping-developing-a-robust-methodology-for-planning-support/> [Date accessed: 11/09/24]

¹³² Landscape Institute (2017) Townscape character assessment. Available at: <https://www.landscapeinstitute.org/technical-resource/townscape/> [Date accessed: 11/09/24]

¹³³ Oxford Archaeology (2019) Black Country Historic Landscape Characterisation Study. Available at: <https://blackcountryplan.dudley.gov.uk/t2/p4/t2p4h/> [Date accessed: 11/09/24]

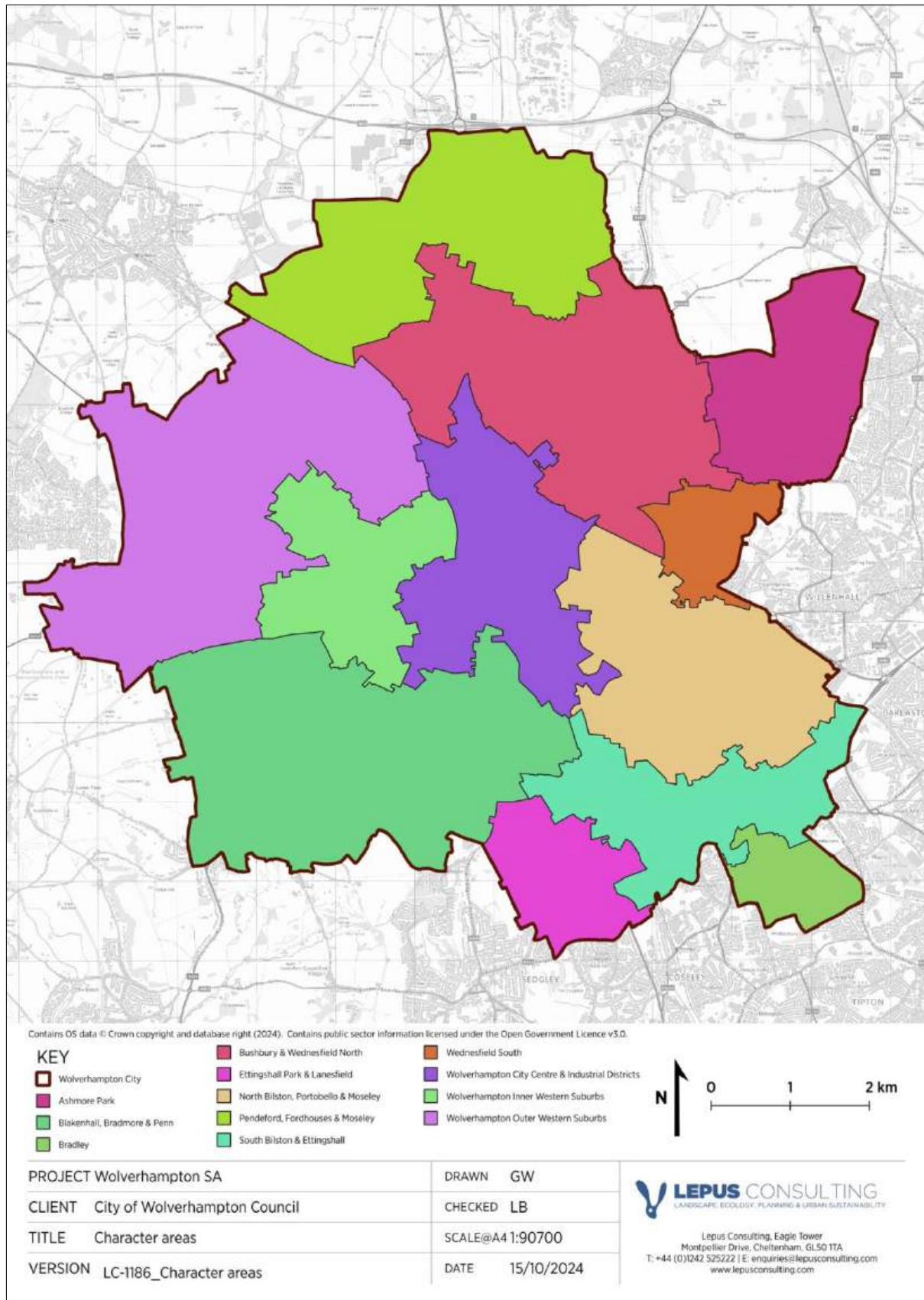


Figure 12.2: Character Areas in Wolverhampton

Box 12.1: Summary of key issues for landscape in Wolverhampton



Key issues for landscape include:

- ⇒ Parts of Wolverhampton lie within the West Midlands Green Belt.
- ⇒ The WLP area is amongst the least tranquil areas of the West Midlands.

12.2 Impacts on landscape

12.2.1 **Box 12.2** presents a plan-wide summary of the adverse impacts on landscape that have been identified through the SA process, prior to mitigation considerations.


Box 12.2: Summary of identified effects on landscape


Impact on landscape	Summary of identified effect
 <p>Threaten or result in the loss of locally distinctive or sensitive landscapes</p>	<p>The introduction of new built form can contradict and conflict with distinctive local landscapes and townscapes which can result in adverse impacts on sensitive landscapes and loss of local character. There are no published evidence documents available to determine the landscape capacity or sensitivity of land in Wolverhampton’s urban area for new development sites; all allocated sites may have potential to give rise to adverse effects, which should be explored further in site-specific assessments.</p> <p>Information relating to the historic environment which has strong links with landscapes/townscapes in Wolverhampton, including the HLC and associated designations, including conservation areas, is discussed in Chapter 10: Cultural heritage).</p>
 <p>Changes in views experienced by local residents and users of the PRoW network</p>	<p>The development proposed in the WLP has the potential to adversely impact on informal high-quality viewing experiences that can be gained from the local public right of way (PRoW) network around proposed development locations at a small number of sites (H2, E12, E25 and GT1).</p> <p>Development proposed at 15 site allocations has the potential to adversely affect views from nearby existing properties, for example through introduction of built form into current areas of open space or low-lying land.</p>

12.3 Local Plan mitigation

12.3.1 Various WLP policies aim to protect and enhance the landscape/townscape character, local distinctiveness and important views. These policies are discussed in **Box 12.3**.

Box 12.3: Mitigating effects of the WLP planning policies on landscape



Policy mitigation for landscape	Summary of mitigating effect
 <p>Threaten or result in the loss of locally distinctive or sensitive landscapes</p>	<p>Policies CSP2 ‘Placemaking: achieving well designed places’, CEN2 ‘Wolverhampton’s centres’, ENV10 ‘High quality design’ and ENV5 ‘Historic character and local distinctiveness’ seek to ensure that new development is in keeping with the surrounding landscape and townscape character and protects and enhances heritage assets in Wolverhampton.</p> <p>Policies ENV4 ‘Trees and hedgerows’, ENV7 ‘Canal network’, ENV8 ‘Open space and recreation’ and ENV9 ‘Playing fields and sports facilities’ will ensure that GI and open green spaces are incorporated and maintained. The canal network in Wolverhampton also forms a significant part of the landscape character, hence maintaining and enhancing this will not only</p>

Policy mitigation for landscape	Summary of mitigating effect
	<p>have benefits for the ecological network in a heavily urbanised area, but also preserve the distinctive landscape character.</p>
 <p>Changes in views experienced by local residents and users of the PRoW network</p>	<p>Policies ENV4 ‘Trees and hedgerows’, ENV7 ‘Canal network’ and ENV8 ‘Open space and recreation’ seek to protect the visual amenity of the landscape through maintaining and enhancing GI and open greenspace throughout Wolverhampton. Maintaining the canal network will protect a key aspect of Wolverhampton’s distinctive character, setting and key views.</p> <p>Policies ENV5 ‘Historic character and local distinctiveness’ and ENV10 ‘High quality design’ seek to ensure that any development proposals positively contribute to the local setting and distinctive character of Wolverhampton including maintaining into and from the development sites. Policy ENV10 requires that development proposals address “<i>the need to maintain strategic gaps and views</i>”.</p>

12.4 Residual effects on landscape

12.4.1 The WLP sets out numerous policies which will be expected to mitigate identified adverse effects on landscapes and townscapes, as discussed in **Box 12.4**.

Box 12.4: Residual effects for landscape

Residual effects	Further details of the residual effect
 <p>Threaten or result in the loss of locally distinctive or sensitive landscapes</p>	<p>The WLP includes a range of policies which will be expected to ensure that any proposed development conserves and enhances the distinctive character of Wolverhampton’s landscapes and townscapes. This includes policies relating to conserving and enhancing GI and open greenspace within the otherwise heavily urban landscape, protecting the canal network, conserving heritage assets and incorporating high quality design. As a consequence, it is likely that any potential adverse impacts will be mitigated.</p> <p>A positive effect is expected, particularly where developments seek to enhance and regenerate Wolverhampton’s landscape, townscape and historic environment.</p>
 <p>Change in views experienced by local residents and users of the PRoW network</p>	<p>The WLP policies will be expected to ensure that potential adverse impacts on views from local residents and the PRoW network will be avoided, and developments will be encouraged to pursue high quality design which could help to enhance visual amenity and other key views across the city. The policies detailed in Box 12.3 also require conservation and enhancement of GI and open greenspace amongst a high-quality public realm.</p> <p>A positive effect is expected with regard to protecting and improving views in and around Wolverhampton.</p>

13 Population and material assets

13.1 Baseline

13.1.1 'Population' is a broad topic and has been addressed under several SA Objectives: 9 'Transport and accessibility', 10 'Housing', 11 'Equality', and 12 'Health', 13 'Economy' and 14 'Education, skills and training'. These objectives seek to create places where residents live a high quality of life for longer, are well educated and have the necessary skills to gain employment. Indicators 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 they are not defined. 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. This includes consideration of mineral resources and waste management. Other aspects of natural assets, such as agricultural land, have been considered under other SEA topics (see **Chapter 14 – Soil**).

Population size and age structure

13.1.3 Wolverhampton's population has increased from around 249,900 in 2011 to 264,300 in 2021 (see **Table 13.1**). This is lower than the overall increase for England, where the population grew by c.3.5 million to 59,597,300 (6.3%) and for the West Midlands (6.2%)¹³⁴.

13.1.4 In 2021, Wolverhampton ranked 64th for total population out of 309 LPA areas in England, which is a fall of two places in a decade. As of 2021, Wolverhampton is the third most densely populated of the 30 LPAs in the West Midlands¹³⁵.

13.1.5 Overall, in England, there has been an increase of 20.1% in people aged 65 years and over, an increase of 3.6% in people aged 15 to 64 years, and an increase of 5.0% in children aged under 15 years. In Wolverhampton there has been an increase of 6.6% in people aged 65 years and over, an increase of 3.7% in people aged 15 to 64 years, and an increase of 12.5% in children aged under 15 years.

Equality and diversity

13.1.6 The WLP area is an ethnically diverse area, with individuals from many different religions, cultures, communities and backgrounds. According to the 2011 Census, it has a growing population from Black, Asian and Minority Ethnic (BAME) communities. Many faiths are followed in the city and has the second-highest proportion of Sikh residents in England¹³⁶. In Wolverhampton:

- 35.5% of the population are from BAME communities;
- 20.5% of the city population have some form of disability;

¹³⁴ Office of National Statistics. Census 2021. Available at: <https://www.ons.gov.uk/visualisations/censuspopulationchange/E08000031/> [Date accessed: 11/09/24]

¹³⁵ Ibid

¹³⁶ City of Wolverhampton Council. Wolverhampton in Profile. <https://www.wolverhampton.gov.uk/your-council/equality-diversity-inclusion/wolverhampton-profile> [Date accessed: 11/09/24]

- 16% of the diverse population were born outside the UK; and
- 3,248 residents aged 16+ estimated to be lesbian, gay or bisexual.

13.1.7 The WLP area is home to a people from a range of socio-economic status who may also experience discrimination, poverty and social exclusion. Child poverty levels are relatively high. In the West Midlands, 22.7% of children are from low-income families¹³⁷.

Indices of Multiple Deprivation

13.1.8 The Index of Multiple Deprivation (IMD) measures the relative levels of deprivation in 32,844 Lower Super Output Areas (LSOAs) in England¹³⁸. LSOAs are small areas designed to be of similar population, of approximately 1,500 residents or 650 households. In general, deprivation is spread across England, with approximately 61% of local authorities containing at least one of the most deprived neighbourhoods in England.

13.1.9 The IMD was last updated in 2019¹³⁹. Out of 317 LPAs in England, Wolverhampton is ranked as the 24th most deprived. Overall, deprivation is high across the WLP area, with 33 LSOAs in Wolverhampton ranked among the 10% most deprived in England.

Equality Impact Assessment

13.1.10 The aim of the Equality Act (2010)¹⁴⁰ is to strengthen current laws that prevent discrimination. The act applies to the provision of services and public functions and thus includes the development of local authority policies and plans. Equality Impact Assessment (EqIA) aims to improve the work of LPAs and ensure plans do not discriminate in the way they provide services and employment and do all they can to promote equality.

13.1.11 The completion of EqIAs is a legal requirement under race, disability and gender equality legislation. EqIA is a systematic and evidence-based tool, which enables CWC to consider through the WLP the likely impact of work on different groups of people who share a protected characteristic, identified in the Equality Act. Protected characteristics comprise:

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

13.1.12 SA Objective 11 of the SA Framework (see **Appendix B**) focuses on equality and as such EqIA considerations have been embedded in the SA/SEA process. To ensure a thorough

¹³⁷ Department for Work and Pensions (2022) Households below average income (HBAI) statistics. Available at: <https://www.gov.uk/government/collections/households-below-average-income-hbai--2> [Date accessed: 11/09/24]

¹³⁸ Ministry of Housing, Communities and Local Government (2019) The English Indices of Deprivation 2019. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/835115/loD2019_Statistical_Release.pdf [Date accessed: 11/09/24]

¹³⁹ 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> [Date accessed: 11/09/24]

¹⁴⁰ Equality Act (2010) Available at: <https://www.legislation.gov.uk/ukpga/2010/15/contents> [Date accessed: 27/09/24]

consideration of how the WLP might affect the protected characteristics identified in the Equality Act, **Appendix K** provides an assessment of each WLP policy to identify likely impacts on potentially vulnerable equalities groups. Negligible or minor positive effects have been identified for all policies.

Housing

- 13.1.13 Government guidance requires LPAs to determine the local housing need figure for their area. The local plan preparation process should then test the deliverability of this housing need figure (see **Chapter 5**). The local housing need figure is calculated by summing the national standard method figure, using 2014-based ONS household projections and affordability ratios which are updated annually. At the time of writing, there is a need for 19,728 dwellings in Wolverhampton for the Plan period of 2024-2042.
- 13.1.14 CWC has produced a SHLAA¹⁴¹, which will be updated annually, to assess land with potential for development in order to inform the housing land supply and trajectory.
- 13.1.15 A key element of the vision of the WLP is to create a network of cohesive, healthy and prosperous communities across the City of Wolverhampton. The WLP should provide a mix of housing types and tenures in order to meet the identified needs for the population, including affordable housing, and accessible housing options particularly for people aged 65 and over.
- 13.1.16 Affordable housing is defined as “*housing for sale or rent, for those whose needs are not met by the market (including housing that provides a subsidised route to home ownership and/or is for essential local workers)*” including affordable housing for rent, starter homes and discounted market sales housing¹⁴².
- 13.1.17 The average UK house price was £285,000 as of December 2023¹⁴³. House prices in Wolverhampton are lower than the UK average but similar to other LPAs in the region, at £212,000 in August 2024¹⁴⁴ compared to £204,000 in Sandwell, £208,000 in Walsall and £234,000 in Dudley.

Economy and employment

- 13.1.18 The improvement and maintenance of high and stable levels of economic growth and employment are key aims of UK and European strategies. 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.
- 13.1.19 Key employment areas are defined as locations which would provide a range of employment opportunities from a variety of employment sectors, including retail parks,

¹⁴¹ CWC (2024) Wolverhampton Strategic Housing Land Availability Assessment (SHLAA) Update as of April 2024. Draft

¹⁴² DLUHC (2023) National Planning Policy Framework, December 2023. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework-2> [Date accessed: 16/07/24]

¹⁴³ Office for National Statistics (2023) UK House Price Index: December 2023. Available at: www.ons.gov.uk/economy/inflationandpriceindices/bulletins/housepriceindex/december2023 [Date accessed: 16/07/24]

¹⁴⁴ Office for National Statistics (2024) Housing prices in Wolverhampton. Available at: <https://www.ons.gov.uk/visualisations/housingpriceslocal/E08000031/> [Date accessed: 16/07/24]

industrial estates and major local employers. In Wolverhampton, 69.7% of the population aged 16 and over are economically active as of March 2024, a total of 116,500 people¹⁴⁵

13.1.20 Wolverhampton City Centre provides retail, office and leisure floorspace. **Figure 13.1** below shows the location of major employment sites across the WLP area, alongside accessibility modelling data. The map shows that almost the entirety of the WLP is within a 30-minute travel time to an employment site, either via walking or public transport.

13.1.21 The percentage of people who are economically active in Wolverhampton is lower than average for Great Britain (see **Table 13.2**). The proportion of those in Wolverhampton in professional occupations (34.6%) is higher than the proportion seen in Great Britain as a whole (26.6%) (see **Table 13.3**).

Table 13.1: Employment rates for the working population of Wolverhampton (16-64) (April 2023- March 2024)¹⁴⁶

Area	Wolverhampton (%)	Great Britain (%)
Economically active	69.7%	78.6
Employees	57.3	66.1
Self Employed	8.4	9.2
Unemployed	6.0	3.9

Table 13.2: Employment occupation within Wolverhampton, West Midlands and Great Britain (April 2023 – March 2024)¹⁴⁷

Occupation	Wolverhampton (%)	West Midlands (%)	Great Britain (%)
Managers, Directors and Senior Officials	4.9%	9.3	10.8
Professional Occupations	34.6	25.7	26.6
Associate Professional Occupations	9.9	14.4	15.3
Administrative & Secretarial Occupations	9.9	9.2	9.6
Skilled Trades Occupations	11.4	9.0	8.7
Caring, Leisure and Other Service Occupations	N/A	8.5	8.2
Sales and Customer Service Occupations	N/A	6.1	6.2
Process Plant & Machine Operatives	7.2	6.6	5.4
Elementary Occupations	13.8	11.9	9.0

Employment land

13.1.22 Wolverhampton lies within the Black Country FEMA which also covers the local authorities of Sandwell, Walsall and Dudley. The latest Black Country EDNA (2024)¹⁴⁸ identifies a demand for 149ha of employment land within Wolverhampton between 2020 and 2042. There have been 22.6ha of completions during 2020-24, reducing residual need to 126.4ha. According to information provided by CWC, the current estimated employment land supply to 2042 in Wolverhampton is 33.65ha (30.25ha on existing allocations and 3.4ha on other sites with planning permission), and 9.25ha on new sites to be allocated through the WLP.

¹⁴⁵ ONS (2024) Labour Market Profile Wolverhampton. Available at: <https://www.nomisweb.co.uk/reports/lmp/la/1946157192/report.aspx?town=wolverhampton> [Date accessed: 11/09/24]

¹⁴⁶ ONS (2023) nomis: Labour Market Profile – Wolverhampton: April 2023 – March 2024. Available at: <https://www.nomisweb.co.uk/reports/lmp/la/1946157192/report.aspx?town=Wolverhampton> [Date accessed: 13/09/24]

¹⁴⁷ Ibid.

¹⁴⁸ Warwick Economics and Development (2024) Black Country Economic Development Needs Assessment

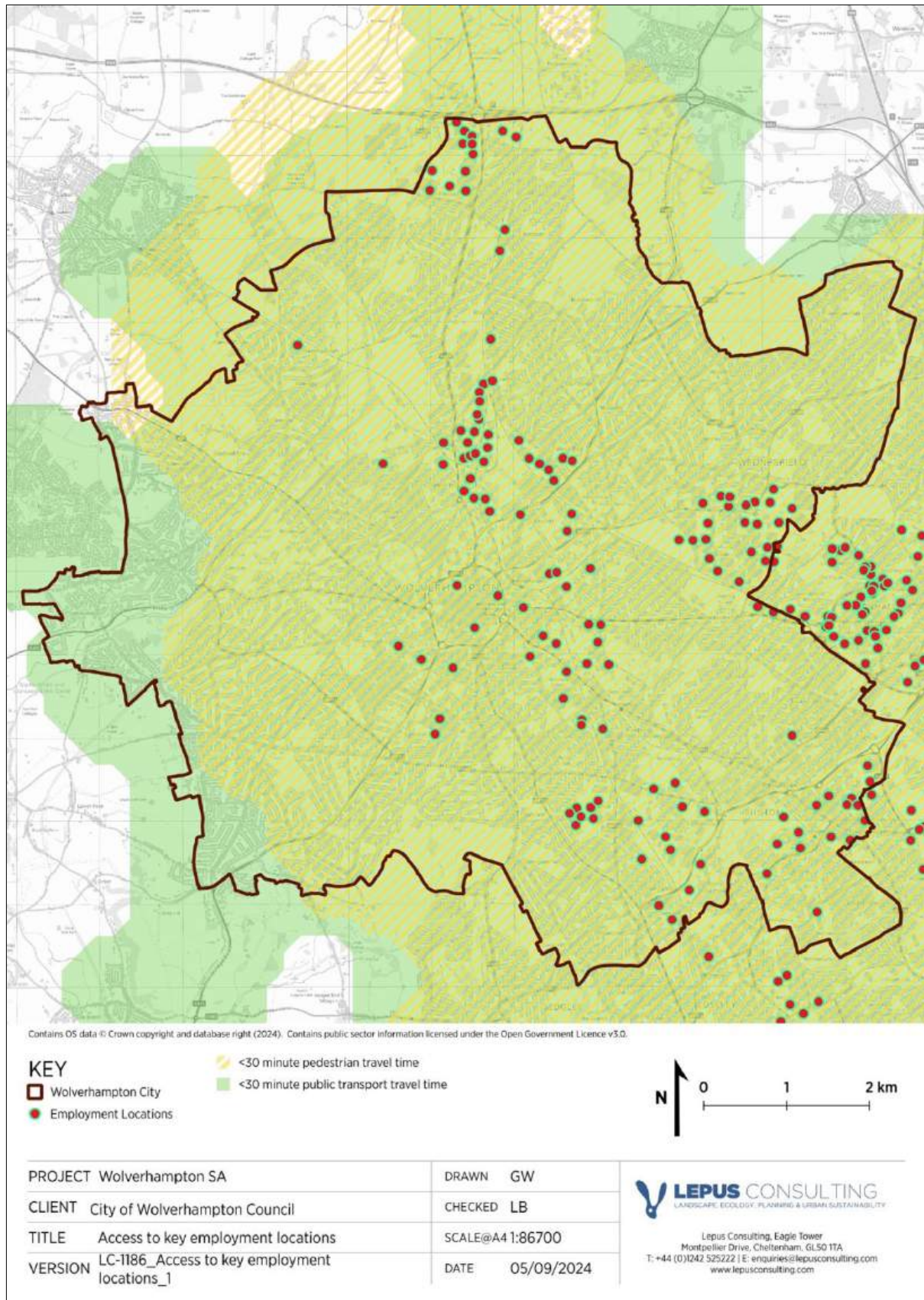


Figure 13.1: Travel time to employment locations in Wolverhampton

Education, skills and training

13.1.23 On average, education attainment is lower in the WLP area than England. **Table 13.4** presents the qualifications levels for the Plan area.

Table 13.3: Qualifications across the WLP area, January-December 2023¹⁴⁹

Qualifications	Wolverhampton
RQF4 and above	40.8
RQF3 and above	60.3
RQF2 and above	76.1
RQF1 and above	80.3
Other Qualifications	8.0
No Qualifications	11.7

13.1.24 GIS data provided by CWC identified that there are a total of 94 primary and 22 secondary schools in the WLP area. It is assumed that new residents in the Plan area require access to primary and secondary education to help facilitate good levels of education, skills and qualifications of residents.

13.1.25 There are also a number of further education and higher education opportunities within the WLP and the adjacent districts including the University of Wolverhampton, Dudley College of Technology and Sandwell College. Within the wider West Midlands, there are several universities including the University of Birmingham, Birmingham City University and Aston University.

13.1.26 The location of primary and secondary schools within the WLP and the areas within a sustainable travel time to these schools have been mapped. **Figure 13.2** shows the areas of the WLP within a 15-minute walking distance to a primary school and **Figure 13.3** shows the areas of the WLP within a 30-minute walking distance or 30-minute distance via public transport to a secondary school. These travel times are assumed to be sustainable for the purposes of SA.

¹⁴⁹ Nomis (2020) Labour Market Profile. Available at:
<https://www.nomisweb.co.uk/reports/lmp/la/1946157192/report.aspx?town=Wolverhampton> [Date accessed: 11/09/24]

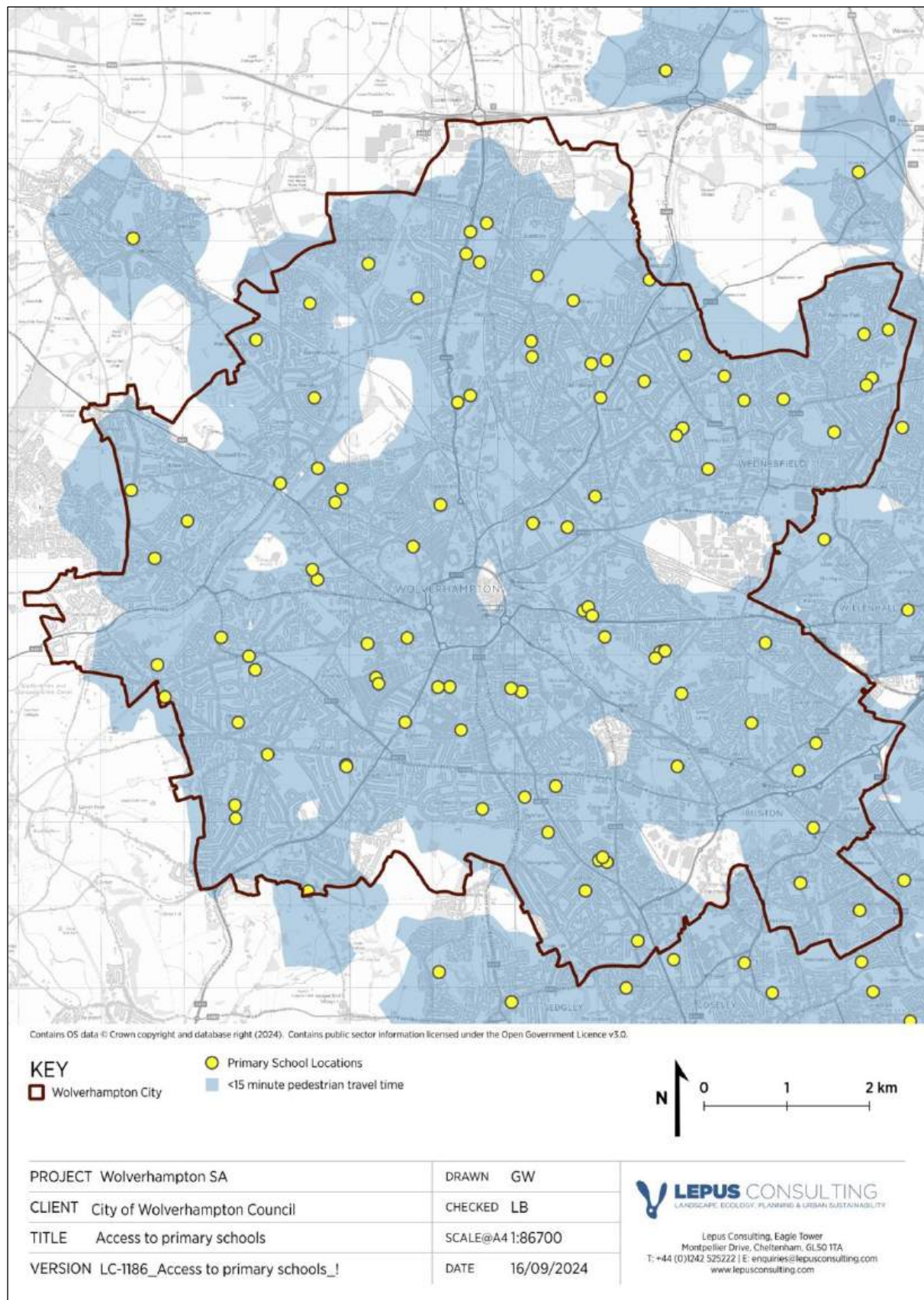


Figure 13.2: Travel time to primary schools in Wolverhampton

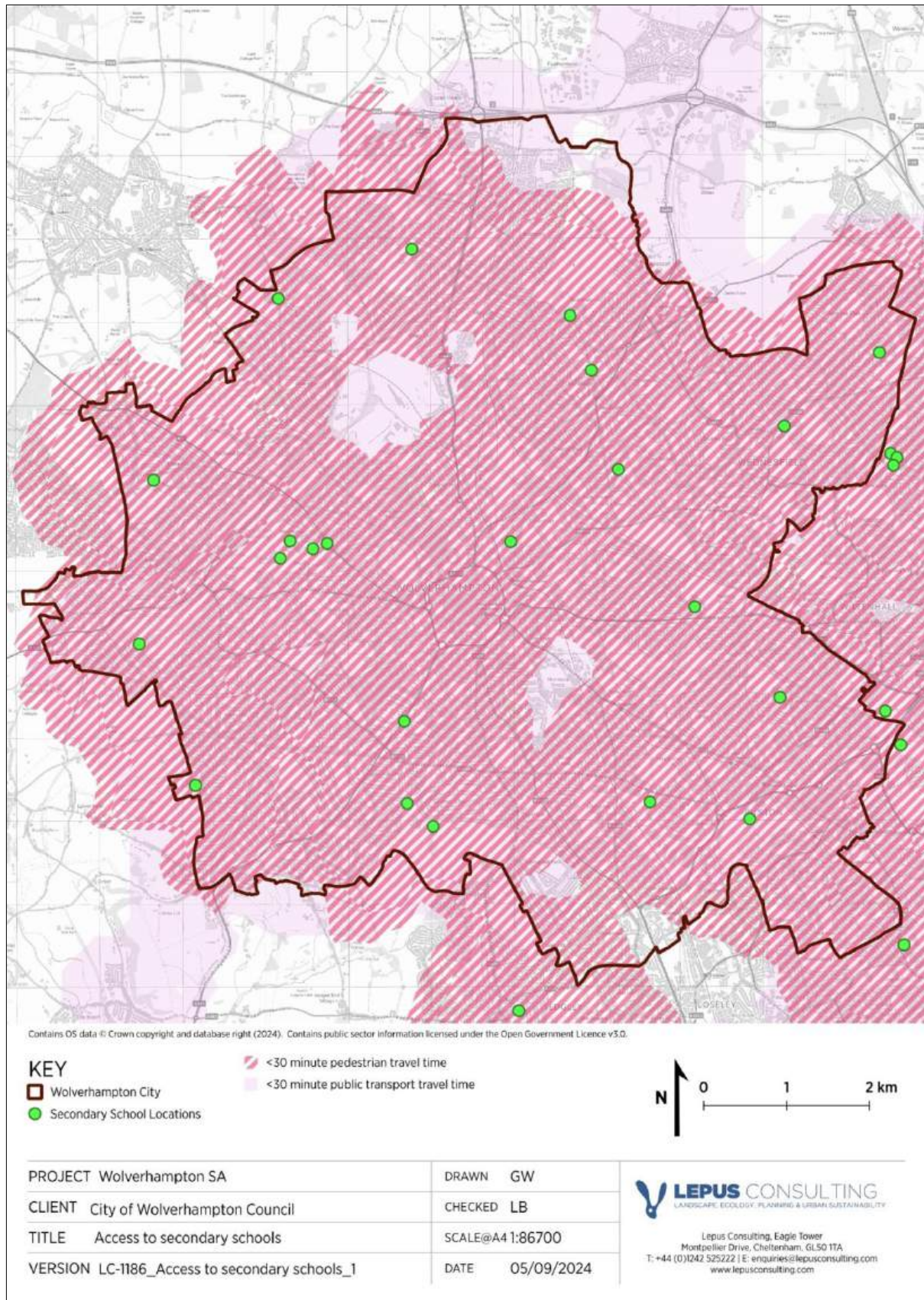


Figure 13.3: Travel time to secondary schools in Wolverhampton

Waste

- 13.1.27 Throughout the City of Wolverhampton 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 initiatives including the 25 Year Environment Plan¹⁵⁰ and Waste Strategy for England¹⁵¹ 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.
- 13.1.28 The proposed development within the WLP area and associated increase in residents will be expected to result in a significant increase in waste produced. It is assumed that new residents in the WLP area will have an annual waste production of approximately 377kg per person, in line with the national average¹⁵².
- 13.1.29 According to the updated 2023 Black Country Waste Study¹⁵³, in 2021 current household Local Authority Collected Waste arising in Wolverhampton was 102,000 tonnes, and approximately 28.6% of waste was reused, recycled or composted.
- 13.1.30 Although national trends suggest that the volume of household waste produced is decreasing, the Waste Study indicates that additional capacity for certain types of waste management will be required, considering the projected growth in the area as well as continuing to facilitate the import of waste from neighbouring authorities.
- 13.1.31 The proportion of waste in the West Midlands sent for recycling and composting is below national levels, whereas waste managed through incineration is higher (see **Table 13.5**).

Table 13.4: Waste management within the West Midlands and nationally¹⁵⁴

	Landfill	Recycling	Incineration
West Midlands	3.9%	37.1%	57.0%
England	7.2%	40.7%	49.1%

Minerals

- 13.1.32 The presence of mineral resources, in particular coal, was a key reason for the original prosperity and development of the Black Country region. The legacy of mineral extraction on ground stability and contamination remains a key issue affecting future development, and some minerals are still of economic importance with active quarries and brickworks.

¹⁵⁰ 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 [Date accessed: 11/09/24]

¹⁵¹ 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 [Date accessed: 11/09/24]

¹⁵² DEFRA (2024) Statistics on waste managed by local authorities in England in 2022/23. Available at: <https://www.gov.uk/government/statistics/local-authority-collected-waste-management-annual-results/local-authority-collected-waste-management-annual-results-202223> [Date accessed: 10/09/24]

¹⁵³ WSP (2024) Black Country Waste Study Update 2023- Updated waste needs assessment to support preparation of emerging Local Plans for each black Country Authority- Wolverhampton. Draft, August 2024.

¹⁵⁴ DEFRA (2024). Local authority collected waste management – annual results 2022/2023. Available at: <https://www.gov.uk/government/statistics/local-authority-collected-waste-management-annual-results/local-authority-collected-waste-management-annual-results-202223#data-and-methodology> [Date accessed: 16/07/24]

- 13.1.33 There is need for a balanced approach between safeguarding mineral resources and supporting housing/economic growth. The protection and extraction of minerals resources is important to support the levels of development proposed over the Plan period and to meet demand for aggregates. There are no mineral safeguarding areas in the WLP area, although there is one manufacturing centre for concrete products, seven concrete batching plants, two dry silo mortar plants, one coating plant and two aggregate recycling plants.
- 13.1.34 The Black Country Minerals Study Update (2024)¹⁵⁵ for Wolverhampton provides an assessment of minerals need and future supply requirement, using the latest available data. The study also provides recommendations to help in the preparation of the WLP.

Box 13.1: Summary of key issues for population and material assets in Wolverhampton

Key issues for population and material assets include:

- ⇒ The population of the City of Wolverhampton is expected to continue to increase, this will have secondary effects.
- ⇒ New business start-ups should continue to be encouraged in the WLP area.
- ⇒ Qualification levels in Wolverhampton are generally lower than regional and national percentages.
- ⇒ The employment level for Wolverhampton is lower than that for Great Britain overall.
- ⇒ House prices are expected to increase and demand for housing will remain high.
- ⇒ Energy consumption from industrial and commercial sources in Wolverhampton is high and is expected to increase.
- ⇒ 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.
- ⇒ There is a need to identify and support opportunities for renewable energy provision locally.

13.2 Impacts on population and material assets

13.2.1 **Box 13.2** 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.

Box 13.2: Summary of identified effects on population and material assets

Impact on population and material assets



Provision of housing to meet local need

Summary of identified effect

The WLP proposes the development of 9,330 dwellings across the Plan period to 2042. This is expected to meet a large proportion of the identified housing need, with the remainder being met through windfall developments and export to neighbouring LPAs via the Duty to Co-operate (DtC). The degree to which residents from vulnerable groups, such as those on low incomes and the elderly, will benefit from the increased housing provision will be dependent upon the size, type and tenure of housing provided.





¹⁵⁵ WSP (2024). Black Country Minerals Study Update. Updated Evidence Base for Minerals to support preparation of emerging Local Plans for each Black Country Authority – Wolverhampton, as of August 2024.



Impact on population and material assets	Summary of identified effect
 <p>Provision of employment opportunities</p>	<p>The WLP will be likely to have a positive impact on the local economy, as well as the wellbeing of residents with access to a range of employment opportunities. The proposals in the WLP are expected to significantly contribute to the identified requirements for the Plan area through allocating 42.9ha of employment floorspace alongside DtC contributions in line with the latest evidenced needs.</p>
 <p>Sustainable access to services and facilities</p>	<p>Whilst the majority of site allocations are located within sustainable access to existing services and facilities, a small proportion of sites are situated outside of sustainable distances to public transport options, and beyond recommended travel times to schools and local services.</p> <p>Of the 24 sites allocated for residential-led development, only Site H11 lies outside a 25-minute walk and Site H20 lies outside the 25-minute journey via public transport to a secondary school. All residential sites are located within sustainable travel time of a 15-minute walk to a primary school.</p> <p>Some 14 sites are located outside the 15-minute sustainable walking distance to local services. One site (H21) is located outside a 15-minute travel time via public transport to local services.</p> <p>Site E22 is located over 400m from a bus stop providing regular services, and four allocated sites (H22, H24c, H24d and GT1) are located over 2km from a railway or metro station.</p> <p>Sustainable access to healthcare services is considered under Chapter 11: Human Health.</p>
 <p>Increased pressure on local services and facilities</p>	<p>The proposed development within the WLP is expected to increase population density across Wolverhampton. This will be likely to apply greater pressure on the capacity of services within the Plan area, including schools, GP surgeries, leisure centres and open spaces.</p>
 <p>Addressing inequalities</p>	<p>All residents should be provided with equal access to a range of opportunities, to support the local population in living happy and healthy lifestyles. Fostering interactive and vibrant communities often benefit from a strong sense of place, a reduced fear of crime and a strong local economy.</p> <p>A total of 23 allocations are situated within the top 10% most deprived Lower layer Super Output Areas (LSOAs); introducing new development into these areas has potential to exacerbate existing inequalities. On the other hand, the proposed new development and regeneration opportunities within the WLP will be likely to have a positive effect on establishing and maintaining cohesive communities and improving equality, seeking to provide a range of housing, employment opportunities and supporting infrastructure to meet the varied needs of the local population.</p>
 <p>Increased household waste generation</p>	<p>CWC has responsibility for the provision of waste collection and recycling services for households as part of the management of waste. The proposed development of 9,330 new dwellings within the WLP is expected to increase household waste generation, and have a potential adverse effect on the capacity of waste management facilities within the Plan area.</p>

13.3 Local Plan mitigation

13.3.1 The proposed development within the WLP aims to meet identified needs, and will be located to ensure the majority of new residents have access to services and facilities to meet their daily needs. Policies which are expected to mitigate or enhance the impact of development on the local population and material assets are discussed in **Box 13.3**.

Box 13.3: Mitigating effects of the WLP planning policies on populations and material assets


Policy mitigation for population and material assets	Summary of mitigating effect
 <p>Provision of housing to meet local need</p>	<p>Policies HOU1 ‘Delivering sustainable housing growth’, DEL2 ‘Balance between employment land and housing’ and CSP1 ‘Spatial strategy’ seek to ensure that 9,330 dwellings plus further contributions through DtC and windfall development are delivered over the Plan period to provide accommodation to meet housing needs.</p> <p>Policies HOU2 ‘Housing density, type and accessibility’ and HOU3 ‘Delivering affordable, accessible and self-build/custom build housing’ seek to ensure that an appropriate mix of housing is supplied to meet specific local needs and address affordability, accessibility and health concerns.</p>
 <p>Provision of employment opportunities</p>	<p>Policy CSP1 ‘Spatial Strategy’ sets out the employment growth to be delivered over the WLP period, including 42.9ha to be met predominantly in the Core Regeneration Areas (as further detailed in Policy EMP1 ‘Providing for economic growth and jobs’), to ensure that a mix of employment land and job opportunities are provided to contribute towards identified needs.</p> <p>Policies EMP2 ‘Strategic Employment Areas’, EMP3 ‘Local Employment Areas’ and EMP4 ‘Other Employment Sites’ set out how various employment floorspace across Wolverhampton will be safeguarded and new employment uses supported in appropriate locations.</p> <p>Policies EMP6 ‘Cultural facilities and the visitor economy’ and CEN2 ‘Wolverhampton’s centres’ seek to increase employment floorspace and access to jobs in Wolverhampton’s centres and boost the visitor economy.</p>
 <p>Sustainable access to services and facilities</p>	<p>Policy CSP1 ‘Spatial Strategy’ sets out the intention to deliver new homes, jobs and local services in sustainable locations for use by the community that are well supported by “<i>excellent public transport links</i>”.</p> <p>Policies TRAN1 ‘Priorities for the development of the Transport Network’, TRAN2 ‘Safeguarding the development of the Key Route Network’, and TRAN6 ‘Influencing the demand for travel and travel choices’ seek to ensure the travel network throughout Wolverhampton is maintained, as well as ensuring access to sustainable and active methods of travel which will allow local residents to access services and facilities to meet their needs.</p>
 <p>Increased pressure on local services and facilities</p>	<p>Policy HOU6 ‘Education facilities’ will ensure that an enhanced network of education facilities is supported for existing and future residents.</p> <p>Policy CEN1 ‘Centres and centre uses’ supports uses that will meet the day-to-day needs of local communities, including convenience stores and food shopping, in line with the settlement hierarchy. Policy CEN3 ‘Provision of local facilities’ ensures the protection and enhancement of local facilities throughout Wolverhampton, including convenience shops, pharmacies, post offices and community facilities, to meet residents’ needs.</p>

Policy mitigation for population and material assets	Summary of mitigating effect
 <p>Addressing inequalities</p>	<p>Several WLP policies will reduce the need to travel and increase access to public transport and active travel routes which will help to increase access to local services and facilities, including Policies CSP1 ‘Spatial Strategy’, CSP2 ‘Placemaking: achieving well designed places’, TRAN1 ‘Priorities for the development of the Transport Network’ and TRAN2 ‘Safeguarding the development of the Key Route Network’.</p> <p>Policies HOU3 ‘Delivering affordable, wheelchair accessible and self/custom build housing’, HOU4 ‘Housing for people with specific needs’ will ensure that accommodation to meet all needs is provided.</p> <p>Policy EMP5 ‘Improving access to the labour market’ supports proposals for new employment development and sets out how these can be accessible to Wolverhampton residents, particularly those in deprived areas.</p> <p>Policy CEN4 ‘Edge-of-Centre and Out-of-Centre Development’ states that all edge-of-centre proposals should support “<i>social inclusion and cohesion</i>”.</p> <p>Policy HOU6 ‘Education facilities’ supports an enhanced network of education facilities across Wolverhampton, addressing accessibility gaps to education across Wolverhampton.</p>
 <p>Increased household waste generation</p>	<p>Policies W1 ‘Waste infrastructure- future requirements’, W2 ‘Safeguarding waste sites’, W3 ‘Locational requirements for new waste facilities’ and W4 ‘Key considerations for waste developments’ seek to ensure there is adequate capacity to manage and process household waste generated in Wolverhampton through establishing new waste sites, as well as seeking to support a reduction in waste production, re-use and recovery of waste materials via recycling, composting and using waste to produce energy.</p>

13.4 Residual effects on population and material assets

13.4.1 Many of the policies would be expected to have positive residual effects in relation to population and provision of social infrastructure, although residual adverse effects are more likely in regard to waste. Residual effects are discussed further in **Box 13.4**.

Box 13.4: Residual effects for population and material assets

Residual effects	Further details of the residual effect
 <p>Provision of housing to meet local need</p>	<p>In order to meet the local housing need the WLP proposes to deliver 9,330 dwellings in the Plan area across the Plan period, coupled with DtC contributions. As detailed in Box 13.3, WLP policies will ensure there is an appropriate mix of housing types and tenures in order to meet the needs of different groups, including affordable housing, accessible and adaptable dwellings and those to provide for residents with specific health needs.</p> <p>The WLP aims to make a significant contribution to meeting the identified housing need in Wolverhampton and as such a positive effect is identified.</p>

Residual effects	Further details of the residual effect
<p style="text-align: center;">2</p> <p style="text-align: center;">Provision of employment opportunities</p>	<p>The WLP allocates 42.9ha of employment land in the Plan area which will make a significant contribution to meeting identified employment needs in the WLP area. As detailed in Box 13.3, the establishment of different employment areas throughout the Plan area will support the provision of a range of employment opportunities that are accessible for Wolverhampton’s residents.</p> <p>A positive effect on employment is expected as it is likely that with DtC provisions across the FEMA, all identified needs can be met.</p>
<p style="text-align: center;">3</p> <p style="text-align: center;">Sustainable access to local services and facilities</p>	<p>WLP policies are anticipated to help improve residents’ accessibility via sustainable and active methods of transport to local services and facilities, including through improvements to walking and cycling routes.</p> <p>A positive effect is anticipated in terms of providing sustainable access to local services and facilities.</p>
<p style="text-align: center;">4</p> <p style="text-align: center;">Increased pressure on local services and facilities</p>	<p>The provision of 9,330 dwellings and 42.9ha of employment floorspace will bring new residents and employees to the area and as such a greater pressure on existing facilities will be expected. However, WLP policies support the expansion of local facilities and services to serve new development and address accessibility gaps.</p> <p>The WLP policies will promote the provision of necessary infrastructure alongside proposed new housing development, and as such a negligible impact is expected with regard to increased pressure on local services and facilities.</p>
<p style="text-align: center;">5</p> <p style="text-align: center;">Addressing inequalities</p>	<p>WLP policies as detailed in Box 13.3 demonstrate CWC’s commitment to making Wolverhampton an inclusive place to live, work and visit. The WLP will support a diverse population through reducing inequalities by addressing the range of accommodation needs, protecting and expanding community facilities and encouraging inclusive design to improve community cohesion through increasing opportunities for social interaction, fostering a sense of place and reducing social inequalities.</p> <p>Overall, a positive effect on equality is anticipated.</p>
<p style="text-align: center;">6</p> <p style="text-align: center;">Increased household waste generation</p>	<p>With the growth proposed in the WLP of 9,330 dwellings and 42.9ha of employment floorspace it is anticipated that the production of household waste will increase. Whilst various policies included within the WLP as detailed in Box 13.3 will work to reduce overall household waste through increase composting, recycling and re-use of waste materials, waste production is still expected to increase to some extent.</p> <p>National waste trends indicate an increase in recycling and a decrease in residual waste over time. The impact of increased household waste generation on the capacity of waste management facilities is expected to lead to a short to medium-term significant effect.</p>

14 Soil

14.1 Baseline

14.1.1 The protection of soil is crucial for future sustainability, since it plays a vital role in food and timber production, in the maintenance of our biodiversity, as a reservoir for water and as a buffer and filter for pollutants. In recent decades agricultural intensification, deforestation and increased pollution from industrial sources has resulted in some loss of soil function and structure in localised areas.

14.1.2 Although the majority of Wolverhampton has been urbanised, the WLP area has a diverse underlying soil resource, which has developed since the last ice age 10,000 years ago. This encompasses a range of soil types which reflect complex interactions between underlying geology, landform, past and existing land use and climate.

14.1.3 In accordance with paragraph 174 of the NPPF, development can have an irreversible adverse (cumulative) impact on the finite stock of best and most versatile (BMV) land. Avoiding the loss of BMV land is a priority as mitigation is rarely possible. 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 3a, are referred to as BMV land¹⁵⁶. 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

14.1.4 The majority of land in the WLP area is ALC 'urban', with pockets of ALC Grade 2, 3 and 4 (see **Figure 14.1**). There is no Grade 1 land within Wolverhampton.

¹⁵⁶ MAFF (1988) Agricultural Land Classification of England and Wales: Revised criteria for grading the quality of agricultural land. Available at: <http://publications.naturalengland.org.uk/publication/6257050620264448?category=5954148537204736> [Date accessed: 09/10/24]

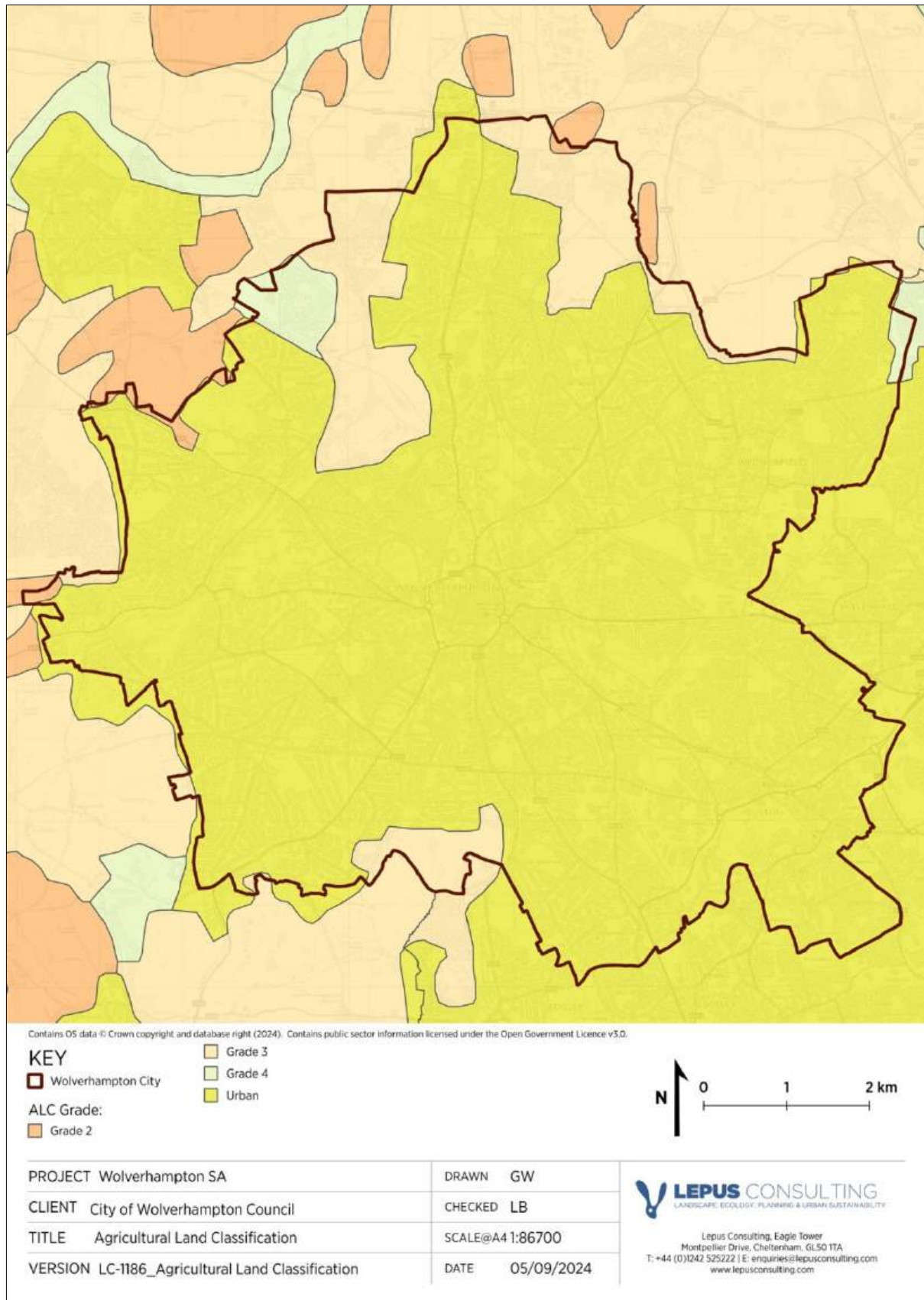


Figure 14.1: Agricultural Land Classification in and around Wolverhampton

Soil pollution and contaminated land

- 14.1.5 Soil pollution can refer to land which is contaminated by a range of pollutants including heavy metals, oils, chemicals and radioactive substances¹⁵⁷. Land is legally defined as 'contaminated land' where substances have the potential to cause:
- significant harm to people, property or protected species;
 - significant pollution of surface water (for example lakes and rivers) or groundwater; or
 - harm to people as a result of radioactivity.
- 14.1.6 In accordance with the core planning principles of the NPPF¹⁵⁸, development on previously developed land will be recognised as an efficient use of land. Development on previously undeveloped land is not considered to be an efficient use of land. Development proposals situated on previously undeveloped land are expected to pose a threat to the soil resource within the proposal perimeter due to excavation, soil compaction, erosion and an increased risk of soil pollution and contamination during the construction phase. This is expected to be a permanent and irreversible impact.
- 14.1.7 Many urban brownfield sites in the WLP area, and some greenfield sites, are affected by the legacy of mining in the area. The exploitation of minerals has led to some localised issues with ground contamination and instability¹⁵⁹. It is anticipated that development proposals within the WLP will require site-specific assessments of ground contamination and effective remediation of soils affected prior to development.
- 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 borough's land, soils and water. Soils have been considered to some extent under SA Objectives 5 'Climate Change Adaptation' and 3 'Biodiversity, flora, fauna and Geodiversity'.

Box 14.1: Summary of key issues for soil in Wolverhampton

Key issues for soil include:

- ⇒ Soil is a non-renewable resource that would continue to be lost. The majority of land in the WLP area is ALC 'urban', with pockets of ALC Grade 3 and ALC Grade 4, which may be under threat from new growth areas and associated infrastructure.
- ⇒ The development of new and improved infrastructure to accompany growth has the potential to lead to an increase in soil erosion and soil loss.

14.2 Impacts on soil


- 14.2.1 **Box 14.2** 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 WLP policies.

¹⁵⁷ Contaminated land. Available at: <https://www.gov.uk/contaminated-land> [Date accessed: 11/09/24]

¹⁵⁸ DLUHC (2023) National Planning Policy Framework, December 2023. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework-2> [Date accessed: 16/09/24]

¹⁵⁹ Mott MacDonald (2009) Black Country JCS Stage 2: Infrastructure and Deliverability Study. Available at: <https://blackcountryplan.dudley.gov.uk/t1/p1/t1p1f/> [Date accessed: 11/09/24]


Box 14.2: Summary of identified effects on soil

Impact on soil	Summary of identified effect
 <p>Loss of soil resources</p>	<p>Soil provides a range of essential services, including nutrient cycling, abating flood risk, filtering water, 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. During construction, soil could potentially be compacted by heavy vehicles on-site. During the occupation or operation phase of development, soil could potentially be paved over, become subject to increased footfall or be subject to increased volumes of chemicals.</p> <p>Of the 39 allocated sites in the WLP, 23 are wholly or partially located on previously undeveloped land or land with potential environmental value. Based on the indicative areas of these allocations, the WLP could result in the loss of approximately 10.25ha of undeveloped land associated with four sites which are wholly undeveloped¹⁶⁰ and a further loss of land with potential environmental value at 19 allocations that contain various proportions of previously developed land. The development of new buildings on land with environmental value will be expected to result in a direct loss of soil resource, with little or no scope for mitigation.</p>

14.3 Local Plan mitigation

14.3.1 The WLP seeks to promote an efficient use of natural resources through various policies and the spatial strategy that prioritises urban growth, as discussed in **Box 14.3**.

Box 14.3: Mitigating effects of the WLP planning policies on soil


Policy mitigation for soil	Summary of mitigating effect
 <p>Loss of soil resources</p>	<p>Under Policy CSP1 'Spatial Strategy' the majority of development will be located within the existing urban areas. This will support the redevelopment of brownfield and previously developed sites which represents an efficient use of land in accordance with the NPPF, supporting urban regeneration and helping to reduce the loss of soil resources from previously undeveloped and greenfield land.</p> <p>Policies ENV1 'Nature conservation', ENV3 'Nature recovery and biodiversity net gain', ENV4 'Trees and hedgerows', ENV8 'Open space and recreation', and ENV9 'Playing fields and sports facilities' seek to enhance the green and blue infrastructure across the Plan area. The WLP recognises the multifunctional benefits of GI and increased extent of open green spaces where ecosystem service functions will help to increase the health of soil in Wolverhampton and maintain this finite resource.</p>

14.4 Residual effects on soil

14.4.1 CWC has sought to reduce the loss of previously undeveloped land through supporting urban regeneration and making the best use of previously developed sites, whilst also seeking to conserve and enhance GI and open spaces. However, some site allocations are situated on previously undeveloped land or land with environmental value; **Box 14.4** sets out the residual adverse effects of the WLP on soil.

¹⁶⁰ 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

Box 14.4: Residual effects for soil

Residual effects	Further details of the residual effect
 <p>Loss of soil resources</p>	<p>Despite the WLP seeing to make the best and most efficient use of land through developing on brownfield and previously developed land, a small proportion of allocations will be expected to result in the loss of some greenfield and previously undeveloped land.</p> <p>Whilst the WLP does seek to increase the provision of GI and open green spaces across the Plan area, the loss of soil has the potential to deteriorate the quality of the ecological network throughout the Plan area, as well as increasing flood risk and the rate of soil erosion which will inhibit multifunctional ecosystem service functions of GI.</p> <p>The loss of approximately 10.25ha of previously undeveloped land is expected to be a permanent adverse effect.</p>

15 Water

15.1 Baseline

15.1.1 National water policies are primarily driven by the EU Water Framework Directive, as translated into national law by the Water Framework Regulations 2003. Key objectives include improving the quality of rivers and other waterbodies to 'good' ecological status by 2027; considering flood risk at all stages of the plan and development process in order to reduce future damage to property and loss of life; and incorporating water efficiency measures into new developments. Key PPPs for the WLP area include the Severn and Humber River Basin Management Plans (RBMPs)¹⁶¹¹⁶² which provide information on the status of surface and groundwater bodies and how water quality can be improved.

Water resources

15.1.2 In Wolverhampton, water supply and sewerage services are supplied by Severn Trent Water and South Staffs Water. Drivers of increased water demand include increase in population, decrease in household occupancy and climate change. Severn Trent Water¹⁶³ and South Staffs Water¹⁶⁴ plan to manage and meet future demand through encouraging water use efficiency, for example by installing water meters, and reducing leakage.

15.1.3 The Water Resources Management Plan (WRMP) prepared by each water company estimates future water demands and plans how these levels will be achieved. The WRMP forecasts a significant deficit that is likely to develop between supply and demand for water over time unless action is taken¹⁶⁵. The WRMP outlines a number of demand management measures that should be taken to ensure continued sustainable supply including reducing abstraction, increasing flexibility in the supply system, and using catchment restoration techniques to improve habitats and ecological resilience to low flows.

15.1.4 Catchment Area Management Strategies (CAMS) are six-year strategies developed by the Environment Agency for managing water resources at the local level. The WLP area lies within the Worcestershire Middle Severn and the Tame, Anker and Mease catchment areas. There is water available for licensing in both catchment areas¹⁶⁶¹⁶⁷ although the percentage reliability of consumptive abstraction is available less than 30% of the time.

¹⁶¹ DEFRA & Environment Agency (2022) Severn River basin district river basin management plan. Available at: <https://www.gov.uk/guidance/severn-river-basin-district-river-basin-management-plan-updated-2022> [Date accessed: 25/09/24]

¹⁶² DEFRA & Environment Agency (2022) Humber River basin district river basin management plan. Available at: <https://www.gov.uk/guidance/humber-river-basin-district-river-management-plan-updated-2022> [Date accessed: 25/09/24]

¹⁶³ Water Resources Management Plan 2019. Available at: <https://www.stwater.co.uk/content/dam/stw-plc/our-plans/severn-trent-water-resource-management-plan.pdf> [Date accessed: 11/09/24]

¹⁶⁴ South Staffs Water. Water Resources Management Plan 2019. Available at: <https://www.south-staffs-water.co.uk/media/2676/final-wrmp-2019-south-staffs-water.pdf> [Date accessed: 11/09/24]

¹⁶⁵ Severn Trent Water. Water Resources Management Plan 2019. Available at: <https://www.stwater.co.uk/content/dam/stw-plc/our-plans/severn-trent-water-resource-management-plan.pdf> [Date accessed: 11/09/24]

¹⁶⁶ Environment Agency (2022) Worcestershire Middle Severn Abstraction Licensing Strategy. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/305450/lit_5356_35376b.pdf [Date accessed: 11/09/24]

¹⁶⁷ Environment Agency (2022) Tame, Anker and Mease abstraction licensing strategy. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/291402/LIT_3306_bc78df.pdf [Date accessed: 11/09/24]

- 15.1.5 The Worcestershire Middle Severn and the Tame, Anker and Mease Abstraction Licensing Strategy¹⁶⁸ state that no reductions in abstraction are required and that other cost-efficient methods can be used to tackle the impacts of abstraction.

Water quality

- 15.1.6 Construction activities in or near watercourses have the potential to cause pollution, impact upon the bed and banks of watercourses and impact upon the quality of the water¹⁶⁹. Watercourses that pass through the City of Wolverhampton include the River Penk, River Tame and Smestow Brook, in addition to the canal network (see **Figure 15.1**).
- 15.1.7 An approximate 10m buffer zone from a watercourse should be used in which no works, clearance, storage or run-off should be permitted¹⁷⁰. However, development further away than this has the potential to lead to adverse impacts such as those resulting from runoff. Each development proposal would need to be evaluated according to land use type, size of development and exact location to determine the potential impacts on water quality.
- 15.1.8 Wastewater treatment works (WwTW) will need to ensure there is the capability to withstand the additional capacity required through development proposed in the WLP and be expanded, if necessary, prior to development taking place.
- 15.1.9 Undertaking a Water Cycle Study (WCS) can help to inform local plans and wastewater infrastructure delivery requirements, water resources and water efficiency requirements to plan for sustainable growth in a cost-effective and joined-up manner. A Phase 1 WCS Scoping Study was undertaken to support the preparation of the BCP¹⁷¹ where at the time of writing Severn Trent Water did not have concerns regarding water resources, although some WwTW had limited capacity.
- 15.1.10 A WwTW Assessment has been carried out by Severn Trent Water in order to determine the ability of managing increased capacities of wastewater, water supply and the effect on water quality¹⁷². As a result of proposed growth in the WLP, the potential impact on sewerage infrastructure is deemed to be 'low' or 'medium' for all allocations, although there are potential issues relating to watercourse constraints in several catchments where monitoring and investment will be required.
- 15.1.11 The Level 2 SFRA¹⁷³ identifies the risk of surface water flooding which could potentially result in harmful impacts for the quality of watercourses and groundwater.

¹⁶⁸ Environment Agency (2022) Catchment Data Explorer. Available at: <http://environment.data.gov.uk/catchment-planning/> [Date accessed: 11/09/24]

¹⁶⁹ World Health Organisation (1996) Water Quality Monitoring - A Practical Guide to the Design and Implementation of Freshwater Quality Studies and Monitoring Programmes: Chapter 2 – Water Quality. Available at: <https://www.who.int/publications/i/item/0419217304> [Date accessed: 11/09/24]

¹⁷⁰ Department of Agriculture, Environment and Rural Affairs (no date) Advice and Information for planning approval on land which is of nature conservation value. Available at: <https://www.daera-ni.gov.uk/articles/advice-and-information-planning-approval-land-which-nature-conservation-value> [Date accessed: 11/09/24]

¹⁷¹ JBA Consulting (2020) Black Country Councils Water Cycle Study: Phase 1 Scoping Study. Available at: https://blackcountryplan.dudley.gov.uk/media/17929/watercyclestudy_phs1_scopingstudy.pdf [Date accessed: 11/09/24]

¹⁷² James, J. (2024) Wolverhampton Wastewater Treatment Works Assessment. Letter from Severn Trent Water to City of Wolverhampton Council, 25 September 2024.

¹⁷³ JBA Consulting (2024) Wolverhampton Level 2 Strategic Flood Risk Assessment. Draft, October 2024.

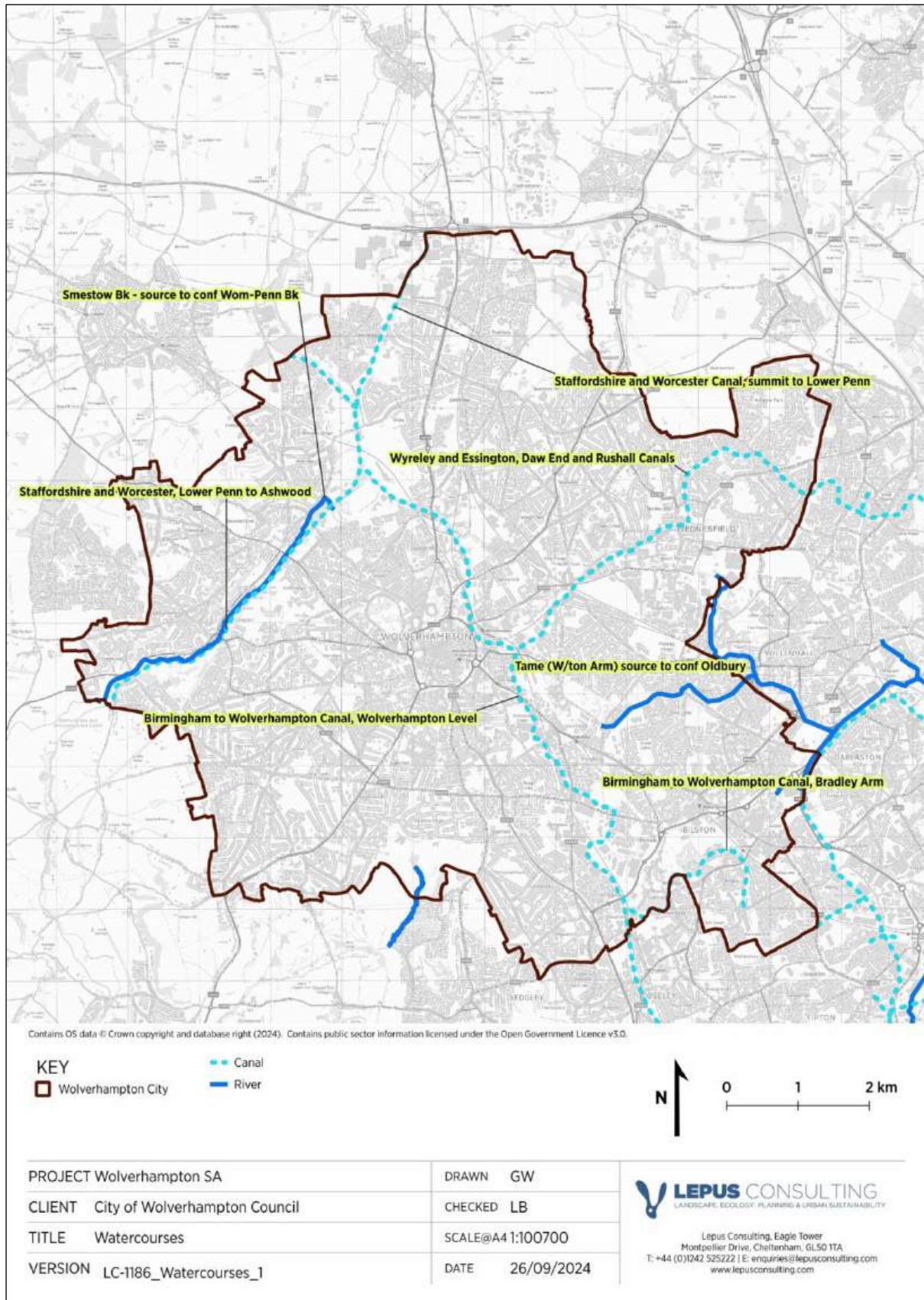


Figure 15.1: The watercourse and canal network in and around Wolverhampton

15.1.12 The vulnerability of groundwater to pollution is determined by the physical, chemical and biological properties of the soil and rocks, which control the ease with which an unprotected hazard can affect groundwater. The Environment Agency has produced a document which provides information on how they manage and protect groundwater¹⁷⁴. Groundwater Source Protection Zones (SPZs) indicate the risk to groundwater supplies from potentially polluting activities and accidental releases of pollutants.

15.1.13 There are three categories of SPZ¹⁷⁵ as follows:

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

15.1.14 Designed to protect individual groundwater sources, these zones show the risk of contamination from any activities that might cause pollution in the area. In this context they are used to inform pollution prevention measures in areas which are at a higher risk, and to monitor the activities of potential polluting activities nearby. SPZs are present in west of WLP area, which is predominantly SPZ 3, with smaller areas of SPZ 1 and 2 (see **Figure 15.2**).

15.1.15 LPAs and developers can play a significant role in improving the local water environment, for example through Local Plan policies, urban regeneration or catchment restoration and GI projects. Typical improvements might include:

- Restoring rivers and floodplains or corridors to a more natural state
- Removing barriers to fish movement
- Promoting efficient and sustainable use of water resources in developments
- Promoting the use of Sustainable Drainage Systems (SuDS)
- De-culverting watercourses
- Managing pollution from wastewater

¹⁷⁴Environment Agency (2018) The Environment Agency's approach to groundwater protection, February 2018, Version 1.2. Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/692989/Environment-Agency-approach-to-groundwater-protection.pdf [Date accessed: 11/09/24]

¹⁷⁵Environment Agency (2019) Manual for the production of Groundwater Source Protection Zones – March 2019. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/822402/Manual-for-the-production-of-Groundwater-Source-Protection-Zones.pdf [Date accessed: 11/09/24]

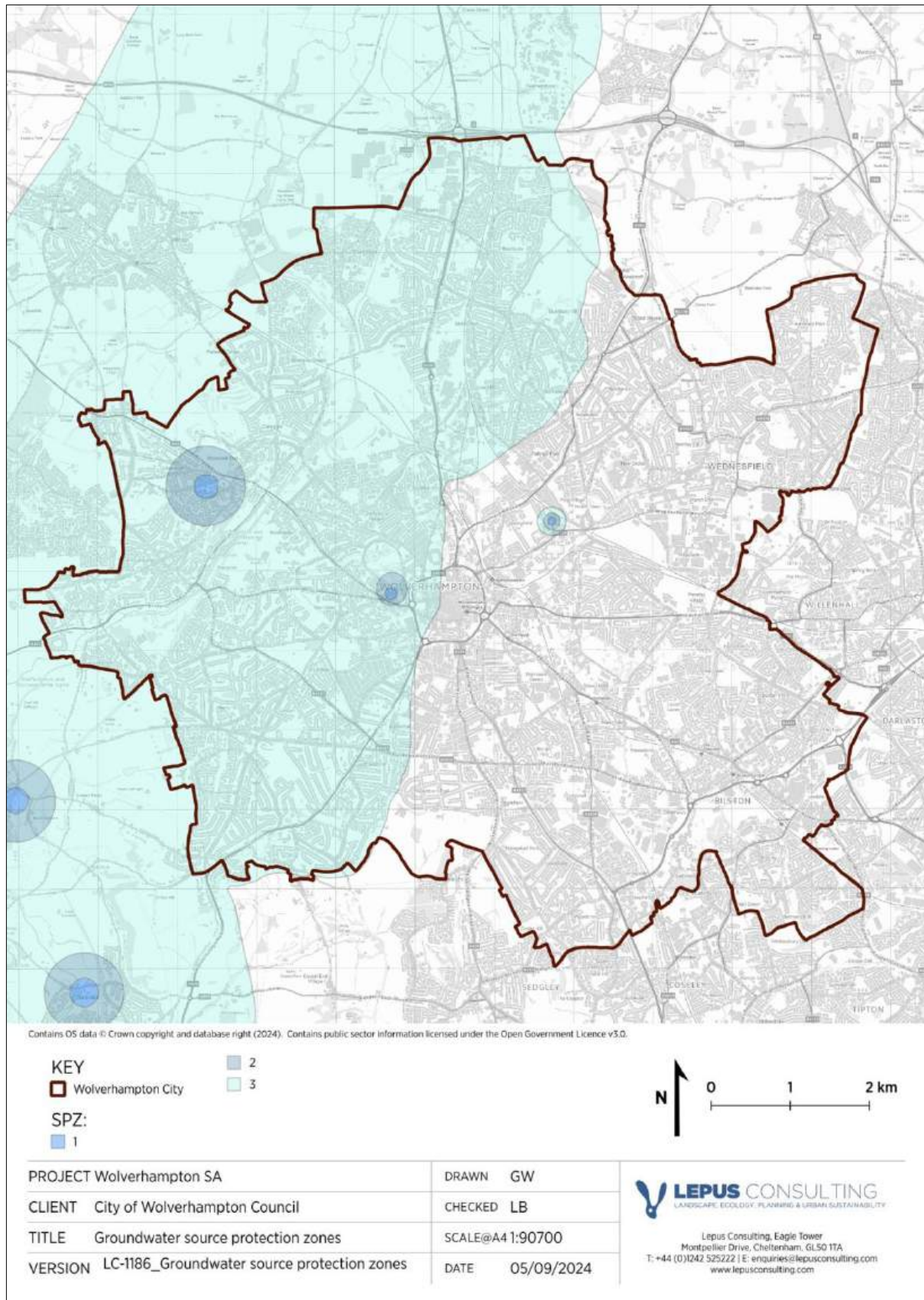


Figure 15.2: Groundwater source protection zones in and around Wolverhampton

- 15.1.16 The issue of water quality has been primarily taken into consideration under SA Objective 7 ‘Pollution’, which seeks to minimise the extent and impacts of water, air and noise pollution. Flooding has been considered in SA Objective 5 ‘Climate Change Adaptation’.
- 15.1.17 The water environment and water resources have also been considered to some extent within SA Objective 6 ‘Natural Resources’ which aims to protect, enhance, and ensure efficient use of, the borough’s land, soils and water as well as SA Objective 3 ‘Biodiversity, flora, fauna and Geodiversity’ in terms of ecological implications.

Box 15.1: Summary of key issues for water in Wolverhampton



Key issues for water include:

- ⇒ A proportion of Wolverhampton contains groundwater SPZs.
- ⇒ Increases in population and development would be likely to harm the water quality in and around Wolverhampton.

15.2 Impacts on water

- 15.2.1 **Box 15.2** presents a plan-wide summary of the adverse impacts on water that have been identified through the SA process, prior to mitigation considerations.

Box 15.2: Summary of identified effects on water

Impact on water	Summary of identified effect
 <p>Reduction in water quality and ecosystem services</p>	<p>The construction and occupation of new development, especially for the 10 allocated sites located less than 10m from a watercourse, has the potential to increase the risk of contamination of waterways. This is primarily due to the potential loss of soil and increased risk of surface water / pollutant runoff. All development and urbanisation may also lead to changes in water quality including cumulative effects from sewage discharge outflows during storm conditions. Decreased water quality may compromise ecosystem service functions of the water environment, including providing the basis for vegetation to flourish and supporting biodiversity.</p> <p>Six allocated sites are located within a groundwater SPZ, where new development could potentially increase the risk of groundwater contamination.</p>
 <p>Increased demand for water and wastewater management</p>	<p>The proposed development of 9,330 new dwellings set out in the WLP is likely to lead to population growth, which will be likely to increase water demand as well as demand for wastewater treatment across the Plan area.</p> <p>The Phase 1 Scoping WCS (2020)¹⁷⁶ noted that some WwTW serving the Black Country area have limited capacity, and this is reflected in the latest liaison with Severn Trent Water regarding the WLP¹⁷⁷.</p> <p>Severn Trent Water has indicated they do not anticipate water supply infrastructure to be a constraint to development in Wolverhampton, given the urban focus for development.</p>



¹⁷⁶ JBA Consulting (2020) Black Country Councils Water Cycle Study: Phase 1 Scoping Study. May 2020. Available at: <https://blackcountryplan.dudley.gov.uk/t2/p4/t2p4h/> [Date accessed: 28/08/24]

¹⁷⁷ James, J. (2024) Wolverhampton Wastewater Treatment Works Assessment. Letter from Severn Trent Water to City of Wolverhampton Council, 25 September 2024.

15.3 Local Plan mitigation

15.3.1 WLP policies aim to protect water quality and improve water efficiency, as discussed in **Box 15.3**.

Box 15.3: Mitigating effects of the WLP planning policies on water

Policy mitigation for water	Summary of mitigating effect
 <p>Reduction in water quality and ecosystem services</p>	<p>Policy ENV7 'Canal network' will aim to protect and enhance Wolverhampton's canal network and will ensure water quality of the canal network is protected and enhanced.</p> <p>Policy ENV12 'Flood risk and water quality' states that "<i>all development should be designed to protect and enhance water quality</i>" and deliver the measures and objectives set out in River Basin Management Plans (RBMPs) and the Water Framework Directive.</p> <p>Policy ENV13 'Sustainable drainage systems and surface water management' identifies the importance of integrating SuDS into developments and managing run-off, that can provide wider benefits to water quality.</p> <p>Several policies including Policies CSP1 'Spatial Strategy', ENV8 'Open Space, Sport and Recreation', ENV9 'Playing Fields and Sports Facilities' and ENV10 'High quality design', will protect and enhance the GI and BI network within the WLP area, that provides ecosystem services such as filtration of pollutants and improved water quality.</p>
 <p>Increased demand for water and wastewater management</p>	<p>Policy ENV14 'Energy and sustainable design' will ensure that new residential development meets water efficiency standards of 110 litres per person per day, as set out in the Building Regulations, which will help to protect water resources.</p> <p>Policy ENV13 'Sustainable drainage systems and surface water management' identifies the importance of integrating SuDS into developments and managing run-off, that can provide wider benefits to water quality and contribute to improved wastewater management.</p> <p>Policy DEL1 'Infrastructure provision' will ensure that new development is supported by necessary on and off-site infrastructure including water supply and sewerage.</p>

15.4 Residual effects on water

15.4.1 Despite the positive provisions of the WLP policies in regard to water quality and quantity, residual adverse effects are expected to remain overall, as discussed in **Box 15.4**.

Box 15.4: Residual effects for water

Residual effects	Further details of the residual effect
<p style="text-align: center;">1</p> <p>Reduction in water quality and ecosystem services</p>	<p>Various policies within the WLP as outlined in Box 15.3 will help to improve water quality and, including conserving the canal network, implementing SuDS to reduce run-off and enhancing and protecting GI and BI that provides ecosystem services such as improved water quality through filtration.</p> <p>The proposed development of 9,330 dwellings and 42.9ha of employment floorspace will place further pressure on wastewater capacity which has the potential to adversely impact water quality, particularly in light of climate change with increased frequency and severity of storms leading to sewage overflows into river channels. Although correspondence from Severn Trent Water¹⁷⁸ indicates that projected growth is likely able to be accommodated within current and planned capacities at relevant WwTW, no detailed hydraulic modelling has been undertaken. It is recommended that developers engage with water companies as early as possible to ensure that appropriate investigations can be undertaken, and capacity can be planned for, to reduce the risk of future overflows as a result of growth in the WLP and neighbouring LPAs.</p> <p>Deterioration in water quality and ecosystem services is likely to be a long-term but potentially reversible significant effect.</p>
<p style="text-align: center;">2</p> <p>Increased demand for water and wastewater management</p>	<p>The proposed development of 9,330 dwellings and 42.9ha of employment floorspace is expected to increase demand for water resources and place increased pressure on wastewater management facilities. The WLP policies detailed in Box 15.3 will help to mitigate this to some extent through incorporating well designed SuDS and ensuring that new development meets water efficiency standards to protect available water resources in the Plan area.</p> <p>Severn Trent Water has indicated they do not anticipate water supply infrastructure to be a constraint to development in Wolverhampton, given the urban focus for development¹⁷⁹. However, as outlined above, there is potential for the overall level of growth proposed in the WLP to lead to deteriorations in water quality associated with risks of storm overflows that will not be fully mitigated by the WLP policies.</p> <p>Increased pressure on wastewater management infrastructure has the potential to be a long-term significant effect.</p>

¹⁷⁸ James, J. (2024) Wolverhampton Wastewater Treatment Works Assessment. Letter from Severn Trent Water to City of Wolverhampton Council, 25 September 2024.

¹⁷⁹ Ibid

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 WLP 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 WLP 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 WLP when considering these alongside other plans and programmes as well as national trends.

Table 16.1: Cumulative effects assessment of the WLP

Summary of identified effects	Details of the cumulative effect	Cumulative effect
Air <ul style="list-style-type: none"> Increased pollutant emissions Exposure of human and biodiversity receptors to poor air quality 	<p>Nationally, measure 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 2035.</p> <p>Local, regional and national policy including the West Midlands Transport Plan¹⁸⁰ and the emerging Wolverhampton Air Quality Action Plan¹⁸¹ will complement the WLP policies, seeking to increase the coverage and connectivity of public transport, pedestrian and cycle networks which will help to reduce reliance on private car use.</p> <p>However, with the introduction of 9,330 dwellings and 42.9ha of employment floorspace through the WLP, all of which lie in the Wolverhampton AQMA, an increase in traffic flows and subsequent reduction of air quality will be expected to have residual adverse effects which cannot solely be fully mitigated through WLP policies.</p> <p>Overall, the DLP will be likely to result in a long-term but potentially temporary significant cumulative adverse effect on air quality, which could result in secondary effects such as for the health of residents and biodiversity.</p>	-
Biodiversity, flora and fauna <ul style="list-style-type: none"> Threats or pressures to European sites Threats or pressures to nationally designated biodiversity sites Threats or pressures to locally 	<p>Biodiversity sites designated for their national, international or local biodiversity value will continue to benefit from legislative protection, and the policy framework set out in the WLP will ensure biodiversity assets are protected, conserved and enhanced where possible.</p> <p>The WLP seeks to increase the coverage of GI, alongside mandatory 10% BNG; however, there remains potential for the proposed development to adversely affect some biodiversity, flora and fauna features when considered together at a landscape scale. Site-based approaches to nature conservation can fail to identify the strategic landscape ecological considerations. The national and international</p>	-

¹⁸⁰ Transport for West Midlands (no date) Congestion Management Plan. Available at:

https://www.tfm.org.uk/media/oxvfyvzv/tfmw_cm-plan-aw_v3_lr_spreads.pdf [Date accessed: 04/10/24]

¹⁸¹ City of Wolverhampton Council (2024) Emerging Wolverhampton Air Quality Management Action Plan. Available at:

<https://www.wolverhampton.gov.uk/environment-and-climate/pollution/air-pollution> [Date accessed: 04/10/24]

Summary of identified effects	Details of the cumulative effect	Cumulative effect
<p>designated and non-statutory biodiversity sites</p> <ul style="list-style-type: none"> Fragmentation of the ecological network and priority habitats 	<p>trends indicate widespread habitat losses and a reduction in species diversity across the UK¹⁸².</p> <p>Overall, there is potential for a cumulative adverse effect on biodiversity, owing to the fragmentation of the ecological network and incremental losses of priority habitats.</p>	
<p>Climatic factors</p> <ul style="list-style-type: none"> Fluvial and surface water flood risk Increased GHG emissions Loss of multi-functional green infrastructure 	<p>Climate, infrastructure, flood risk, sustainable transport and GI policies within the WLP will be likely to help reduce adverse impacts of the proposed development regarding climatic factors. The WLP policies set out provisions to reduce GHG emissions and the urban heat island effects, seek opportunities for renewable and low carbon technologies, enhance GI and reduce flood risk. However, with 9,330 dwellings and 42.9ha of employment floorspace proposed in the WLP, it is likely there will be a cumulative increase in GHG emissions with increased energy demand associated with this new development as well as transport related emissions, the production and use of materials during constructions and the release of embodied carbon.</p> <p>Overall, the WLP could potentially result in a cumulative adverse effect on climate change which may lead to secondary effects such as flood risk, threats to the health and safety of residents, further declines in the diversity of habitats and wildlife and possibly the supply of water across the Plan area.</p> <p>It should be noted that the Future Homes Standard is expected to come into effect in 2025 which will seek to ensure that new homes are future-proofed with low-carbon heating systems, air-source heat pumps and high levels of energy efficiency. The necessary legislation is expected to be introduced in 2024, ahead of implementation in 2025. This new standard, coupled with local interventions and consideration of carbon offsetting schemes, has the potential to limit Wolverhampton's contributions to the climate crisis in the longer term.</p>	-
<p>Cultural heritage</p> <ul style="list-style-type: none"> Alter character and/ or setting of designated heritage assets Effects on historic character 	<p>Wolverhampton supports a range of designated and non-designated heritage features. The WLP policies in combination with legislation and other documents such as Conservation Area Appraisals¹⁸³ will be expected to ensure no significant impacts on the designated heritage assets and Wolverhampton's historic character arise from the proposed development.</p> <p>The WLP policies will further encourage the conservation and enhancement of historic, architectural and archaeological features which may lead to longer term benefits to Wolverhampton's historic character through encouraging regeneration and redevelopment of previously developed land, town centres and canal corridors.</p>	0
<p>Human health</p> <ul style="list-style-type: none"> Sustainable access to healthcare facilities Net loss of public greenspace 	<p>The majority of site allocations in the WLP are located in areas with good sustainable access to healthcare facilities and transport options, as well as walking and cycling links. The development of 9,330 dwellings and 42.9ha of employment floorspace will be expected to put pressure on existing healthcare and open space provision. However, the WLP policies will be expected to ensure adequate capacity to meet the needs of current and future Wolverhampton residents, and support the provision of accessible GI, greenspaces and recreational facilities. As such there are not expected to be any significant impacts on access to healthcare facilities and provision of greenspace.</p>	0

¹⁸² State of Nature Partnership (2023) The State of Nature. Available at: https://stateofnature.org.uk/wp-content/uploads/2023/09/TP25999-State-of-Nature-main-report_2023_FULL-DOC-v12.pdf [Date accessed: 04/10/24]

¹⁸³ City of Wolverhampton Council. Conservation Area Appraisals. Available at: <https://www.wolverhampton.gov.uk/planning/conservation> [Date accessed: 04/10/24]

Summary of identified effects	Details of the cumulative effect	Cumulative effect
<p>Landscape</p> <ul style="list-style-type: none"> Threaten or result in the loss of locally distinctive or sensitive landscapes Changes in views experienced by local residents and users of the PRoW network 	<p>The WLP focusses the majority of growth within the urban area. The WLP policies seek to ensure that development proposals conserve and enhance the distinctiveness of Wolverhampton’s landscape and townscape character, including through the provision of GI, the protection of heritage assets, appropriate design and the consideration of views from and onto proposed development. As such, there is potential for a cumulative positive effect on the landscape in the medium-long term, where the WLP seeks to ensure development proposals enhance and regenerate Wolverhampton’s landscape, townscape and historic character.</p>	+
<p>Population and material assets</p> <ul style="list-style-type: none"> Provision of housing to meet local need Provision of employment opportunities Sustainable access to services and facilities Increased pressure on local services Addressing inequalities 	<p>The WLP is likely to have a positive effect on people and the economy as a result of the provision of 9,330 new homes and 42.9ha of employment floorspace to meet the diverse range of needs in the Plan area. The WLP also seeks to ensure that housing of a range of types and tenures is available to residents, including affordable housing and housing for people with specific needs.</p> <p>The WLP policies will ensure sustainable access to services, supported by local and national policy that promotes the improvement and integration of public transport. The WLP will ensure protection of existing facilities and provision of new facilities to address accessibility gaps. Overall, no significant impacts are expected in terms of accessibility.</p> <p>Through the WLP policies it is evident CWC seeks to enhance community cohesion and improve inequalities by addressing the diverse needs of the population, safeguarding community facilities and encouraging development proposals to incorporate careful design which supports a high-quality public realm. The WLP is expected to result in a positive cumulative effect on local communities through improving opportunities for social interaction, sense of place and reducing inequalities.</p>	+
<p>Population and material assets</p> <ul style="list-style-type: none"> Increased household waste generation 	<p>The introduction of 9,330 dwellings and 42.9ha of employment floorspace across Wolverhampton will be likely to result in an increase of waste generation throughout the Plan period. Whilst recycling, re-use and composting rates are increasing on a national scale, it is unlikely this will help to decrease waste generation in the Plan area to a far enough extent. A long-term negative cumulative effect is anticipated for waste.</p>	-
<p>Soil</p> <ul style="list-style-type: none"> Loss of soil resources 	<p>Nationally, rates of soil erosion are increasing. Soil is a non-renewable resource, which performs several important ecosystem services and supports a diverse range of habitats.</p> <p>Despite seeking to make the best use of available brownfield and previously developed land the proposed allocations in the WLP will cumulatively result in the loss of approximately 10.25ha of previously undeveloped land or land which may have environmental/ ecological value. Whilst the WLP does seek to increase GI across the Plan area, the loss of permeable soils has potential to increase flood risk and the 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 the ability of the soil biome to effectively provide ecosystem services.</p> <p>Overall, there is potential for a permanent cumulative adverse effect on ecosystem services.</p>	-

Summary of identified effects	Details of the cumulative effect	Cumulative effect
<p>Water</p> <ul style="list-style-type: none"> • Reduction in water quality and ecosystem services • Increased demand for water and wastewater management 	<p>Severn Trent Water has indicated they do not anticipate water supply infrastructure to be a constraint to development in Wolverhampton¹⁸⁴, with water efficiency also increasing nationally. 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.</p> <p>The expected increase in population as a result of the development proposed in the WLP will increase pressure on wastewater management infrastructure. When considered in combination with growth in neighbouring authorities, and with climate change leading to increased storm events, there is a likelihood that development proposed in the WLP will lead to adverse impacts on downstream water quality as a result of diffuse pollution and increased sewage overflows into waterbodies.</p> <p>A long-term cumulative effect has been identified in terms of water quality.</p>	-

¹⁸⁴ James, J. (2024) Wolverhampton Wastewater Treatment Works Assessment. Letter from Severn Trent Water to City of Wolverhampton Council, 25 September 2024.

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 if so, 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** for CWC to consider in the implementation of the WLP.

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

Theme/ SEA Regulations	Indicator	Scale and frequency	Target
Air	Concentration of NO ₂ and PM ₁₀	Annually, Plan area wide	Decrease
Air	Traffic flows on main roads	Bi-annually, Plan area wide	Decrease
Air	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
Biodiversity, flora and fauna	Number of planning approvals granted contrary to the advice of Natural England or Birmingham and Black Country Wildlife Trust	Annually, Plan area wide	Zero
Biodiversity, flora and fauna	Percentage loss of the ecological network	Annually, Plan area wide	Zero
Biodiversity, flora and fauna	Quality and extent of priority habitats	Annually, Plan area wide	Increase
Biodiversity, flora and fauna	Canopy cover within Wolverhampton	Every 3 to 4 years, Plan area wide	20% by 2035
Biodiversity, flora and fauna	Uplift in biodiversity net gain units within Wolverhampton	Annually, Plan area wide	Increase

Theme/ SEA Regulations	Indicator	Scale and frequency	Target
Climatic factors	CO ₂ emissions per capita	Annually, Plan area wide	Decrease
Climatic factors	Percentage of energy generated from renewable sources	Annually, Plan area wide	Increase
Climatic factors	Number of properties at risk of flooding	Annually, Plan area wide	Decrease
Climatic factors	Extent of surface water flood risk	Annually, Plan area wide	Decrease
Climatic factors	Fluvial flood risk along the Smestow Brook	Annually, Plan wide area	Decrease
Cultural heritage	Number of conservation area appraisals	Annually, Plan area wide	Increase
Cultural Heritage	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
Human health	Number of GP surgeries	Annually, Plan area wide	Increase
Human health	Hectares of accessible open space per 1,000 population	Annually, Plan area wide	Increase
Landscape	Quantity of development in sensitive landscapes	Annually, Plan area wide	Zero
Landscape	Quality and extent of green infrastructure	Annually, Plan area wide	Increase
Population and material assets	Number of affordable housing completions	Annually, Plan area wide	Increase
Population and material assets	Percentage of economically active residents	Annually, Plan area wide	Increase
Population and material assets	LSOAs in Wolverhampton within the 10% most deprived in Great Britain	Every 3 to 4 years, Plan area wide	Decrease
Population and material assets	Quantity of household waste sent to landfill	Annually, Plan area wide	Decrease
Soil	Number of dwellings built on previously developed or brownfield land	Annually, Plan area wide	Increase
Soil	Area of contaminated land remediated	Annually, Plan area wide	Increase
Water	Number of planning permissions granted contrary to Environment Agency advice	Annually, Plan area wide	Zero
Water	Number of waterbodies classified as 'good' ecological status	Annually, Plan area wide	Increase
Water	Number of overflow events of untreated sewage discharges into rivers	Annually, Plan area wide	Zero
Water	Water efficiency in new homes	Annually, Plan area wide	Increase
Water	Water availability for extraction	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 WLP, the SA findings have been used to help refine policy choices and site options through to the final proposals set out in the WLP.
- 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 **Chapter 4** and **Appendix E**). The application of the precautionary principle means that when doubt prevails, a worst-case scenario is identified.
- 18.1.5 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 and that are likely to continue without the WLP.

18.2 Recommendations

- 18.2.1 Recommendations made throughout the SA process have been fed back to CWC to assist their decision making as the WLP has been developed. This includes recommendations made in the Regulation 18 SA Report¹⁸⁵ which are set out in **Table 18.1**, and recommendations made during the evaluation of draft iterations of the policy assessments as summarised in **Table 18.2**.
- 18.2.2 It should be noted that the recommendations are not exhaustive, nor are they all necessary. The recommendations set out measures that may help to mitigate some of the potential adverse effects that had been identified during the SA process. These recommendations or suggested enhancements were considered by CWC and some have been incorporated into the final versions of the policies; CWC's responses are noted in **Tables 18.1** and **18.2** below.

¹⁸⁵ Lepus Consulting (2024) Sustainability Appraisal of the Wolverhampton Local Plan Regulation 18: Issues and Preferred Options. Available at: <https://www.wolverhampton.gov.uk/sites/default/files/2024-02/Sustainability%20Appraisal%20WLP%20IPO%202024.pdf> [Date accessed: 23/09/24]

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.

Table 18.1: Summary of general recommendations made in the SA process and actions taken by CWC

SA Objective	Recommendations	Action taken/ CWC Response
1: Cultural Heritage	<ul style="list-style-type: none"> Where a development proposal could potentially result in substantial harm to the significance of a historic asset, clear justification should be provided, for example public benefits outweighing the harm to the asset. 	<p>Policy ENV10 – High Quality Design will ensure that all development proposals “<i>address the need to ensure development has no harmful impacts on key environmental and historic assets in accordance with other national and local policies</i>”.</p> <p>Policy ENV5 – Historic Character and Local Distinctiveness and saved policies of the Wolverhampton Unitary Development Plan will also control impacts on historic assets.</p> <p>The WLP, in Table 12, sets out heritage impact information and policy requirements for each housing and employment site allocation. This includes stating where a Heritage Impact Statement is required. This will ensure that none of the site allocations will result in substantial harm to the significance of a historic asset.</p>
2: Landscape	<ul style="list-style-type: none"> Ensure development proposals aim to protect and enhance the special qualities of locally designated landscapes. Ensure development proposals are in-keeping with the local landscape character and the findings of the most recent Landscape Sensitivity Assessment¹⁸⁶. Ensure development proposals are constructed in accordance with appropriate design guides and codes, such as the ‘Design: process and tools’¹⁸⁷ government guidance. Development proposals which have the potential to significantly adversely affect views, for example those experienced by users of the PRoW network, should incorporate appropriate mitigation. 	<p>Policy ENV5 Historic Character and Local Distinctiveness is based upon, and refers to, comprehensive evidence of landscape value (Historic Environment Area Designations – as shown on Figure 11) across the whole of Wolverhampton, as set out in the Black Country Historic Landscape Characterisation Study. The Black Country Landscape Sensitivity Assessment (BCLSA) covers the Wolverhampton Green Belt only and was prepared specifically to assess the potential impact of development on the landscape value of different green belt parcels for the purposes of the Black Country Plan process. There are no green belt development sites in the WLP. Therefore the BCLSA does not provide appropriate evidence to underpin Policy ENV5, and does not form part of the evidence base underpinning the WLP.</p> <p>The supporting text for Policy CSP2 – Placemaking: Achieving Well Designed Places sets out (in para 3.46) that the Design Guide for Wolverhampton consists of: “Policy CSP2; other strategic design policies in Section 10; non-strategic design policies adopted in other Development Plan Documents and Neighbourhood Plans; and detailed design guidance provided in</p>

¹⁸⁶ Land Use Consultants (2019) Black Country Landscape Sensitivity Assessment. Available at: https://blackcountryplan.dudley.gov.uk/media/13883/black-country-lsa-front-end-report-final-lr_redacted.pdf [Date accessed: 23/09/24]

¹⁸⁷ MHCLG (2019) Guidance. Design: process and tools. Available at: <https://www.gov.uk/guidance/design> [Date accessed: 23/09/24]

SA Objective	Recommendations	Action taken/ CWC Response
		<p>Supplementary Planning Documents, development briefs and masterplans.”</p> <p>Policy ENV5 – Historic Character and Local Distinctiveness ensures that development proposals demonstrate that “all aspects of the historic character and distinctiveness of the locality, including any contribution made by their setting, and (where applicable) views into, from, or within them, have been fully assessed and used to inform proposals”.</p>
<p>3: Biodiversity, flora, fauna and geodiversity</p>	<ul style="list-style-type: none"> The WLP policies including Policy ENV2 or its successor should take into account the findings of the HRA when available. Where development proposals have the potential to adversely impact international or European designated sites, reference should be made to the Cannock Chase ‘Guidance to mitigate the impact of new residential development’¹⁸⁸ and other relevant documents with the evidence base. Policies should support development which aims to protect, and where possible provide, supporting habitat to nearby European sites. CWC could strive to achieve higher BNG targets than the mandatory 10% through the WLP, for example in strategic developments. CWC could consider implementing an Environmental Net Gain policy which would require developers to deliver a wider range of environmental benefits and ecosystem services than BNG alone, such as for air quality and flood risk management^{189 190}. Improve resilience and connectivity of biodiversity sites through landscape scale management. Ensure reference is made within policies to Wolverhampton’s Tree and Woodland Strategy. 	<p>The HRA does not require any specific amendments to Policy ENV2. Amendments were made to Policy ENV11 following recommendations of the HRA.</p> <p>Table 12 of the WLP has been amended to highlight that site allocations H22, H24c) and H24d) are located within the Cannock Chase SAC 15km zone, and therefore Policy ENV2 applies.</p> <p>As there are no European sites within or adjacent to the Wolverhampton City boundary, there are no obvious circumstances whereby development within Wolverhampton could potentially protect or provide supporting habitat to nearby European sites.</p> <p>The WLP Viability Study is clear that the majority of development allocations cannot support further planning obligations which would impose financial costs, such as higher BNG targets. Providing higher BNG targets on site would also make it impossible to achieve the high densities which are integral to the WLP spatial strategy and growth targets.</p> <p>Achieving “<i>landscape scale management</i>” to improve resilience and connectivity of biodiversity sites is implicit in delivery of the Local Nature Recovery Network, as set out in Policy ENV1 and supporting text.</p> <p>The Wolverhampton Tree and Woodland Strategy (2020) is referenced under Policy ENV4, but has to some extent been superseded by the Wolverhampton Tree</p>

¹⁸⁸ City of Wolverhampton Planning Guidance to Mitigate the Impact of New Residential Development on Cannock Chase Special Area of Conservation (SAC) March 2022 (Updated June 2023). Available at: <https://www.wolverhampton.gov.uk/sites/default/files/2023-06/Wolverhampton%20Guidance%20to%20Mitigate%20impact%20of%20Residential%20on%20Cannock%20Chase%20SAC%20June%202023.pdf> [Date accessed: 23/09/24]

¹⁸⁹ DEFRA (2019) Natural Capital Committee advice to government on net environmental gain. Available at: <https://www.gov.uk/government/publications/natural-capital-committee-advice-to-government-on-net-environmental-gain> [Date accessed: 24/09/24]

¹⁹⁰ National Infrastructure Commission (2021) Natural Capital and Environmental Net Gain: A discussion paper. Available at: <https://nic.org.uk/studies-reports/natural-capital-environmental-net-gain/#:~:text=Environmental%20net%20gain%20is%20the,to%20the%20pre%2Ddevelopment%20baseline.&text=Biodiversity%20net%20gain%20is%20a,for%20achieving%20environmental%20net%20gain.> [Date accessed: 24/09/24]

SA Objective	Recommendations	Action taken/ CWC Response
	<ul style="list-style-type: none"> It is recommended that Evidence Base documents in relation to biodiversity (including the 2010 Birmingham and the Black Country Biodiversity Action Plan) are updated in accordance with the latest guidance. 	<p>Planting Strategy (2023), upon which key elements of the Policy are based.</p> <p>The evidence provided by the Black Country Biodiversity Action Plan (2010) is still relevant, and the Local Nature Recovery Network evidence preparation process is the current priority in terms of resources and meeting national policy requirements. Local Site Assessments for key sites impacted by the WLP have been prepared and updated, where resources and timescales allow.</p>
<p>4: Climate change mitigation</p>	<ul style="list-style-type: none"> Provide necessary infrastructure to encourage low carbon options. Aim to protect and enhance public space to encourage safe walking and cycling opportunities. Where appropriate, site-specific Transport Plans should be prepared. Development proposals should aim to be carbon neutral. Seek to achieve no biodegradable waste to landfill to reduce emissions, in line with 'Net Zero the UK's contribution to stopping global warming'¹⁹¹. Consider retrofitting buildings to make them more energy efficient. It is recommended that a Climate Change Strategy is prepared, drawing on CWC's Climate Commitment¹⁹². This could also help to identify the carbon capture and storage potential of the Plan area. Consider local partnerships to establish locally appropriate solutions to the climate crisis. Protect and enhance the local green and blue infrastructure networks through a specific GI policy. It is recommended that a Green Infrastructure Plan or Strategy is prepared, or that GI principles are incorporated into the emerging Open Space Strategy update. 	<p>The WLP policies go as far as possible to mitigate climate change impacts, given the limits of the planning system and development viability in Wolverhampton.</p> <p>The WLP Waste policies seek to minimise waste to landfill, in as far as this is possible within the limitations of planning policy.</p> <p>Policy ENV8 – Open Space and Recreation, alongside non-strategic UDP policies, maximise opportunities to protect public space for safe walking and cycling, require site-specific Transport Plans, and promote green infrastructure principles.</p> <p>Wolverhampton City Council has prepared a Wolverhampton Net Zero 2041 Strategy and Action Plan¹⁹³.</p>
<p>5: Climate change adaptation</p>	<ul style="list-style-type: none"> Using relevant data sources, ensure development proposals incorporate green infrastructure where appropriate. 	<p>Policy ENV8 – Open Space and Recreation, Policy ENV3 – Nature Recovery and Biodiversity Net Gain, alongside non-strategic UDP policies, maximise opportunities to incorporate green infrastructure.</p>

¹⁹¹ 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/> [Date accessed: 24/09/24]

¹⁹² City of Wolverhampton Council. Our Climate Commitment. Available at: <https://www.wolverhampton.gov.uk/environment-and-climate/climate-change-and-sustainability/climate-emergency-declaration> [Date accessed: 24/09/24]

¹⁹³ City of Wolverhampton Council (2024) Our Net Zero City: 2041. Available at: <https://consultation.wolverhampton.gov.uk/green-cities/our-net-zero-city/#:~:text=Working%20with%20other%20organisations%2C%20the,through%20increased%20planting%20and%20landscaping.> [Date accessed: 22/10/24]

SA Objective	Recommendations	Action taken/ CWC Response
	<ul style="list-style-type: none"> Ensure development proposals do not result in the exacerbation of surface water flood risk in surrounding areas. Development proposals should be built in accordance with the relevant Surface Water Management Plan¹⁹⁴. It is recommended that the Surface Water Management Plan is updated. Ensure capacity of water treatment works is sufficient to serve new development. Promote increased water efficiency in new developments. 	<p>Policies ENV12 – Flood Risk and Water Quality and ENV13 – Sustainable Drainage Systems and Surface Water Management will ensure that developments do not exacerbate surface water flood risk, are built in accordance with the Black County scoping Surface Water Management Plan, and ensure capacity of water treatment works is sufficient to serve new development.</p> <p>The WLP will bring in maximum national water efficiency standards through Policy ENV14 – Energy and Sustainable Design.</p>
6: Natural resources	<ul style="list-style-type: none"> The retention of trees and other vegetation should be encouraged to help retain the stability of the soil and prevent erosion. Effective management should be in place to help prevent pollution and unnecessary compaction of soils during construction. Consider the requirement for Construction Environmental Management Plans in Planning Conditions. Where sites contain bare soil following construction of development, it is recommended that vegetation, in particular native plant species, be used to cover the ground. Ensure development proposals on contaminated land are only permitted where it can be demonstrated that the contamination can be effectively managed or remediated so that it is appropriate for the proposed use. 	<p>Policies ENV2 – Nature Recovery and Biodiversity Net Gain and ENV4 – Trees and Hedgerows provide a comprehensive set out policy tools to retain trees and vegetation and ensure their appropriate replacement through development to avoid bare soil.</p> <p>Saved UDP policies ensure appropriate control of development of contaminated land.</p>
7: Pollution	<ul style="list-style-type: none"> Where appropriate, planning obligations should be used to secure contributions to tackle poor air quality or for air quality monitoring. Development should take into consideration recommendations within the relevant Air Quality Action Plan and the outputs of the Annual Status Reports. Ensure visual and auditory buffers are incorporated at the edge of development proposals located in close proximity to railway lines to help mitigate noise pollution. Ensure development proposals which could potentially result in an increase in noise disturbance are adequately mitigated, for example, through efficient layout of development, restrict activities 	<p>Policy ENV11 – Air Quality adequately addresses air quality issues arising from development.</p> <p>Policy ENV10 – High Quality Design and non-strategic UDP policies, ensure pollution, including noise pollution, is adequately mitigated through development.</p> <p>Policies ENV12 – Flood Risk and Water Quality and ENV13 – Sustainable Drainage Systems and Surface Water Management will ensure that developments are built in accordance with the Black County scoping Water Cycle Study and ensure capacity of wastewater treatment works is sufficient to serve new development and to protect water quality. The WLP will bring in maximum national water efficiency standards through Policy ENV14 – Energy and Sustainable Design.</p>

¹⁹⁴ Scott Wilson (2009) Black Country Water Cycle Study and Scoping Surface Water Management Plan. Available at: https://blackcountryplan.dudley.gov.uk/media/11668/water_cycle_study_scoping_surface_water_mgmnt_plan.pdf [Date accessed: 24/09/24]

SA Objective	Recommendations	Action taken/ CWC Response
	<p>at certain times or the use of noise insulation.</p> <ul style="list-style-type: none"> Development proposals should be built in accordance with recommendations within the Water Cycle Study¹⁹⁵ and other relevant documents within the Evidence Base, including Water Resource Management Plans, Catchment Flood Management Plan and Basin Management Plans. It is recommended that a Phase 2 Water Cycle Study is carried out. 	
8: Waste	<ul style="list-style-type: none"> Development proposals should demonstrate measures to minimise waste generation during construction. Development proposals should integrate well-designated waste storage space to facilitate effective waste storage, recycling and composting. 	WLP Waste policies address these issues.
9: Transport and accessibility	<ul style="list-style-type: none"> Ensure all development proposals and Travel Plans (where applicable) aim to reduce reliance on private car use wherever possible and aim to promote access to local facilities and services in a manner which minimises climate change emissions and promotes active travel. 	WLP Transport policies address these issues.
10: Housing	<ul style="list-style-type: none"> Ensure all development proposals are built to a high-quality design in line with the 'Design: process and tools'¹⁹⁶ government guidance. 	Policies CSP2 – Placemaking: Achieving Well Designed Places and ENV10 – High Quality Design, alongside non-strategic policies in the UDP and other planning documents, will ensure that all development is built to a high quality standard of design.
11: Equality	<ul style="list-style-type: none"> Ensure residential development proposals incorporate functional private or communal open space, including green space. Ensure development proposals provide adequate indoor space in line with the requirements set out in the technical housing standards¹⁹⁷. Ensure development proposals promote social interaction, including the establishment of strong neighbourhood centres. Ensure development proposals take into account privacy, access to sunlight, noise and disturbance, vibration, 	<p>Open space is addressed in non-strategic policies in the UDP.</p> <p>Policy HOU2 introduces the national space standard for all new homes in Wolverhampton.</p> <p>Strong neighbourhood centres are promoted by the WLP Centres policies.</p> <p>Policies CSP2 – Placemaking: Achieving Well Designed Places and ENV10 – High Quality Design, alongside non-strategic policies in the UDP and other planning documents, address issues relating to privacy, amenity, safety and crime.</p>

¹⁹⁵ JBA Consulting (2019) Black Country Councils Water Cycle Study: Phase 1 Scoping Study. Available at: https://blackcountryplan.dudley.gov.uk/media/17929/watercyclestudy_phs1_scopingstudy.pdf [Date accessed: 24/09/24]

¹⁹⁶ MHCLG (2019) Guidance. Design: process and tools. Available at: <https://www.gov.uk/guidance/design> [Date accessed: 24/09/24]

¹⁹⁷ MHCLG (2015) Technical housing standards – nationally described space standards. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/524531/160519_Nationally_Described_Space_Standard_Final_Web_version.pdf [Date accessed: 24/09/24]

SA Objective	Recommendations	Action taken/ CWC Response
	<p>artificial lighting, odour, crime and safety.</p> <ul style="list-style-type: none"> • Ensure development proposals promote safe and accessible neighbourhoods, helping to reduce crime and the fear of crime. • Consider supporting the use of the 'Secured by Design'¹⁹⁸ scheme in relation to crime prevention. 	
12: Health	<ul style="list-style-type: none"> • Development proposals should take into consideration the findings of the latest Playing Pitch and Outdoor Sports Strategies, along with other relevant documents within the Evidence Base. • Where appropriate, planning obligations should be used to secure contributions to tackle poor air quality and for air quality monitoring. • Development should take into consideration recommendations within the relevant Air Quality Action Plan and the outputs of the Annual Status Reports. • Improve or enhance the PRoW and cycle network across the Plan area. It is recommended that the Rights of Way Improvement Plan is updated. • Provide or improve safe pedestrian and cycle access to public greenspaces and open spaces. • Development proposals should be in accordance with the Open Space Strategy or subsequent updates. • Ensure development proposals do not result in detrimental impacts to the safety of pedestrians and cyclists. 	WLP Health Policies and other WLP Policies, alongside non-strategic policies in the UDP and other planning documents, address all of these health-related issues.
13: Economy	<ul style="list-style-type: none"> • Ensure residential-led proposals are located in close proximity to bus stops or other sustainable transport options to reach employment opportunities. • Improve access to employment opportunities, through provision of bus stops and bus services, and/ or improvements to the local pedestrian and cycle networks. 	WLP Transport Policies and Policy HOU2 – Housing Density, Type and Accessibility, alongside the WLP Spatial Strategy, will ensure that residents have good sustainable transport access to employment opportunities.
14: Education	<ul style="list-style-type: none"> • Increase the provision and capacity of primary and secondary schools across the Plan area in line with the identified need. 	Policy HOU6 – Education Facilities will address this issue, within the limits of development viability in Wolverhampton and public resources available for school place provision.

¹⁹⁸ Secured by Design. Available at: <https://www.securedbydesign.com/> [Date accessed: 24/09/24]

Table 18.2: Summary of policy recommendations made in the SA process and actions taken by CWC

WLP Policy	Recommendation	CWC response
Strategic priorities	It is recommended that the strategic priorities could be strengthened through incorporating reference to regeneration of the urban areas, and seeking opportunities for heritage led regeneration to reinforce local character and appreciation of the historic environment.	The different aspects of regeneration, and heritage, are adequately addressed in the Strategic Priorities
Strategic priorities	The strategic priorities could be enhanced through ensuring reference to the waste hierarchy, encouraging the recycling and re-use of waste materials, including both construction and household waste.	This is addressed by Strategic Priority 10.
Policy CSP1- Spatial Strategy	The spatial strategy could be improved through more specific reference to the water environment, including the ecological benefits of the canal and river network present in Wolverhampton as well as the protection of these assets from adverse effects, such as water pollution from industrial and domestic activities.	Part 2 (f) of this Policy has been strengthened by making reference to blue infrastructure.
Policy CSP1- Spatial Strategy	Policy CSP1 could be strengthened through reference to the protection of blue infrastructure, particularly with regard to potential adverse impacts for water pollution from industry and development.	Part 2 (f) of this Policy has been strengthened by making reference to blue infrastructure.
Policy CSP2- Placemaking: achieving well designed places	This policy could be enhanced through specific reference to aiding the delivery of the Nature Recovery Network in order to support the ecological network and habitat provision in the Plan area.	Part (6) of this Policy refers to supporting a strong natural environment and providing space for wildlife.
Policy CSP2- Placemaking: achieving well designed places	The policy could be enhanced through ensuring that the water quality of the watercourse network is conserved and enhanced with the aims of minimising water pollution across the Plan area and into the wider Black Country.	Part (7) of this Policy adequately addresses the water environment.
Policy HW1- Health and wellbeing	Policy HW1 could be strengthened through specific wording regarding noise and air pollution associated with the operation of developments to ensure health of people within neighbouring residential and commercial areas are not adversely affected.	This Policy is not intended to repeat all other WLP policies which relate to health issues.
Policy HW1- Health and wellbeing	This policy could be strengthened through reference to the natural environment, considering the multifunctional benefits for physical and mental health from improved and expanded GI and ecological networks throughout the urban environment.	The supporting text refers to the majority of these links, in particular those listed in para 5.14.
Policy HOU2- Housing density, type and accessibility	It is recommended that the policy includes detail to ensure the design and layout of new development, particularly with regard to tall buildings, is informed by a Landscape and Visual Impact Assessment or Landscape and Visual Appraisal (LVIA/LVA).	The design and layout of development is covered in other WLP and non-strategic UDP policies and, regarding tall buildings in particular, in saved parts of the Wolverhampton City Centre Area Action Plan.
Policy HOU3- Delivering affordable, accessible and self build/ custom build housing	It is recommended that Policy HOU3 could be enhanced by ensuring that affordable housing created will remain affordable in perpetuity.	The planning system is not capable of ensuring that affordable housing will remain affordable in perpetuity, given other legal requirements such as right to buy.
Policy HOU5- Accommodation for Gypsies and Travellers and	It is recommended that the policy includes greater clarity regarding “ <i>integration with neighbouring communities</i> ” where it is unclear if this would provide	Taken together with the justification text and national policy, it is considered that

WLP Policy	Recommendation	CWC response
Travelling Showpeople	greater access to local services and facilities, schools or employment opportunities.	sufficient guidance has been provided.
Policy EMP1- Providing for economic growth and jobs	It is recommended that more specific wording regarding “ <i>environmental enhancements</i> ” is included in this policy, such as the conservation and/or enhancement of multifunctional GI and to ensure regeneration of employment areas considers thorough expansion of the ecological network throughout the Plan area.	The Policy is not intended to address details covered in other Plan policies.
Policy EMP2- Strategic Employment Areas	Unlike Policy EMP1, this policy lacks wording relating to promoting the uptake of public transport and active travel and the use of renewable energy technologies more specifically which would have otherwise worked to mitigate some of the harmful impacts associated with climate change mitigation and health. It is recommended these aspects are integrated into the policy or cross-references are incorporated, to strengthen the policy.	The Policy is not intended to address details covered in other Plan policies.
Policy EMP2- Strategic Employment Areas	The policy could benefit from more specific wording regarding “ <i>high quality environments</i> ” such as ensuring their design is in keeping with the surrounding character of the area and the sites incorporate multifunctional GI to connect with the wider local ecological network and provide key ecosystem service functions such as flood alleviation.	The Policy is not intended to address details covered in other Plan policies.
Policy EMP3- Local Employment Areas	The policy could benefit from more specific wording regarding the integration of multifunctional GI which would benefit biodiversity by expanding the local ecological network as well as the functioning of ecosystem services associated with GI.	The Policy is not intended to address details covered in other Plan policies.
Policy EMP4- Other Employment Sites	The policy could be enhanced through more specific wording relating to the conservation of the existing landscape and townscape character and appropriate design of to ensure the setting and integrity of the historic environment is not compromised.	The Policy is not intended to address details covered in other Plan policies.
Policy EMP4- Other Employment Sites	The policy could set out detail regarding the incorporation of GI throughout the sites to contribute to the extension of the GI and ecological networks throughout the Plan area with their associated ecosystem service functions such as flood alleviation.	The Policy is not intended to address details covered in other Plan policies.
Policy EMP6- Cultural facilities and the visitor economy	The policy supports heritage-related tourism where this “ <i>does not adversely impact on the heritage assets themselves or their environment</i> ”; it is recommended that this wording is strengthened to ensure that heritage assets and their settings are conserved and enhanced alongside any such proposals, in line with their significance.	The Policy is not intended to address details covered in other Plan policies.
Policy CEN1- Centres and centre uses	Positive effects could be secured through incorporating stronger wording to the policy itself regarding conserving and enhancing the landscape and cultural heritage features.	The Policy is not intended to address details covered in other Plan policies.
Policy CEN1- Centres and centre uses	The policy could be enhanced through specific wording relating to the incorporation of GI, green space and the multifunctional benefits associated with open space within Wolverhampton’s centres which could provide benefits for the ecological and habitat networks throughout the Plan area, access to local greenspaces, as well as the various ecosystem service functions they provide.	The Policy is not intended to address details covered in other Plan policies.

WLP Policy	Recommendation	CWC response
Policy CEN2- Wolverhampton's centres	The policy could benefit from more specific detail regarding blue and green infrastructure.	The Policy is not intended to address details covered in other Plan policies.
Policy ENV1- Nature conservation	It is recommended that Policy ENV1 could be enhanced through ensuring that canal/waterside developments will include measures to protect and where possible improve the ecological and chemical status of waterbodies.	The ecological and chemical status of waterbodies is protected through Policies ENV3, ENV7, ENV10, ENV12, ENV13 and W4.
Policy ENV10- High quality design	It is recommended that Policy ENV10 could be enhanced to recognise the need to conserve and where possible enhance the historic environment and heritage assets, in line with Policy ENV5. Opportunities for heritage-led design schemes could also be encouraged particularly in the historic centres.	The Policy is not intended to address details covered in other Plan policies.
Policy ENV13- Sustainable drainage systems and surface water management	The policy could be enhanced through encouraging SuDS to be linked to wider GI schemes in order to make the best and most efficient use of their multifunctional benefits.	The Policy is not intended to address details covered in other Plan policies.
Policy ENV14- Energy and sustainable design	The policy could be strengthened through reference to embodied carbon associated with developments and the re-use of existing development and construction materials.	The planning system is not capable of delivering this goal.
Policy ENV14- Energy and sustainable design	The policy could make reference to reducing operational carbon which will support the creation of a more sustainable Wolverhampton for current and future residents.	The planning system is not capable of delivering this goal.
Site policies SA Objective 2: Landscape	Site policies relating to high density development including flats or apartment blocks, or wider WLP policies, should ensure that these developments are informed by an LVIA / LVA to identify and address any concerns regarding landscape character and views.	Landscape value is taken into account as part of wider design evaluation.
Site policies SA Objective 3: Biodiversity, flora, fauna and geodiversity	It is recommended that site policies could be enhanced by expanding on the existing statutory requirements for BNG, adding specific text to encourage well planned BNG that can provide multi-functional benefits to local biodiversity assets, for example the canal network which lies adjacent to several allocated sites and forms an important part of the ecological network. It is recommended that stronger wording is provided within the site policies to clearly indicate what measures will need to be included to ensure design will not harm biodiversity assets, particularly with respect to the canal network.	The operation of biodiversity net gain is controlled and limited by national policy and legislation. Development viability also imposes limits within Wolverhampton.
Site policies SA Objective 4: Climate change mitigation	The site policies that include housing renewal schemes (H6, H7, H24) would benefit from referencing how embodied carbon can be quantified and reduced.	The planning system is not capable of delivering this goal.
Site policies SA Objective 6: Natural Resources	The site policies that include housing renewal schemes (H6, H7, H24) will benefit from providing wording to ensure that any loss of open space or gardens is retained or should ensure that an equivalent provision is made.	It is not necessarily appropriate to retain all open space or gardens as part of housing renewal.

WLP Policy	Recommendation	CWC response
<p>Site policies General</p>	<p>Where site policies refer to “<i>high quality design which respects the adjoining canal</i>” or similar requirements, it is recommended to make clear which characteristics or features are to be considered, for example cultural heritage and/or biodiversity designations, or the canal’s wider role as part of the green/blue infrastructure network.</p> <p>Site policies E14 and E16 should include more specific wording regarding “<i>protecting and improving the environment</i>” to clarify what aspect of the environment this relates to, including more specific detail on what developers will need to address.</p>	<p>The text in Table 12 is not intended to be comprehensive – rather it signposts to the relevant WLP or other policies, where further detail is provided.</p>

19 Conclusions

19.1 Residual effects following mitigation

- 19.1.1 The SA has assessed the site allocations and policies proposed in the WLP using the methodology in **Chapter 4** and assumptions as set out in **Appendix E**. A range of sustainability effects have been identified, which are highlighted throughout the policy and site assessments in **Appendices F, G, H** and **J**, with residual positive, negligible and negative effects summarised and discussed in **Chapters 7 to 15**.
- 19.1.2 Proposals in the WLP 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 WLP proposals alone and in-combination.
- 19.1.3 The WLP 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, employment and supporting infrastructure to meet needs, promoting sustainable and active travel and ensuring development helps to create a high quality built and natural environment.
- 19.1.4 The mitigation proposals presented in the WLP 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 As outlined in **Table 19.2**, there are a range of residual adverse effects that are identified as a result of the WLP. This largely relates to the potential for the growth proposed in the WLP to cumulatively lead to an increase in GHG emissions, waste, air and water pollution, and loss of soil resources.

Table 19.1: Likely residual positive sustainability effects of the WLP

Summary of residual positive effects	
1	<p>Provision of multi-functional green infrastructure</p> <p>The WLP promotes the conservation and enhancement of the multi-functional green and blue infrastructure network across Wolverhampton, and will support proposals that seek to increase connectivity and link with wider initiatives such as the emerging Nature Recovery Network. Although the proposed development within the WLP will result in loss of greenfield land and associated GI to some extent, the WLP policies will be expected to compensate for this and result in a positive effect on GI provision in the longer term. This is likely to lead to further benefits in terms of supporting biodiversity, increasing access to green and semi-natural spaces, and promoting climate change resilience.</p>
2	<p>Conservation of historic character</p> <p>Through the WLP policies, CWC will ensure that development within areas of distinctive heritage or in proximity to non-designated heritage assets identified within the HLC conserves and enhances historic, architectural and archaeological features. The WLP encourages regeneration of centres and key urban corridors including the medieval core of Wolverhampton City, industrial areas and the canal network, and is therefore likely to have positive effects on the conservation and enhancement of historic character.</p>

Summary of residual positive effects	
3	<p>Provision of public greenspace</p> <p>The WLP policies will be expected to ensure that development proposals do not result in a loss of public greenspace across the WLP area, and will further improve accessibility to greenspaces and opportunities for recreation across Wolverhampton. This will help to encourage new and existing residents to live active and healthy lifestyles and ensure sufficient access to outdoor space with likely benefits for both physical and mental health and wellbeing.</p>
4	<p>Access to pedestrian and cycle networks</p> <p>The majority of WLP allocations lie in proximity to existing footpaths and cycle paths, and the WLP policies will be likely to further increase accessibility to these networks through promoting the creation and enhancement of walking and cycling routes that are safe and conveniently located. By improving the coverage, quality and accessibility of these routes this will be likely to encourage residents to participate in physical exercise and active travel, with benefits to health and wellbeing as well as accessibility.</p>
5	<p>Protection of locally distinctive / sensitive landscapes and views</p> <p>The WLP includes a range of policies which will be expected to ensure that any proposed development conserves and enhances the distinctive character of Wolverhampton's landscapes and townscapes, and seeks to protect and enhance important views. This includes policies relating to conserving and enhancing GI and open greenspace within the otherwise heavily urban landscape, protecting and maintaining the canal network, protecting heritage assets and incorporating high quality design. An overall positive effect is expected, particularly where developments seek to enhance and regenerate Wolverhampton's landscape, townscape and historic environment.</p>
6	<p>Provision of housing and employment land to meet local need</p> <p>In order to meet the identified housing need, CWC proposes to deliver 9,330 dwellings and 42.9ha of employment floorspace within the Plan period, coupled with DtC contributions. Policies set out in the WLP 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 accessible and affordable homes, and provision for the Gypsy and Traveller community. Employment land will be provided in accordance with the identified needs in accessible locations.</p>
7	<p>Sustainable access to local services and facilities</p> <p>CWC are seeking to deliver housing growth in locations that are well served by existing local facilities, and through the WLP policies, will ensure that these facilities are protected and enhanced including convenience shops, pharmacies, post offices and community facilities, to meet residents' needs. The WLP policies are anticipated to help improve residents' accessibility via sustainable and active methods of transport to local services and facilities.</p>
8	<p>Addressing inequalities</p> <p>The WLP policies demonstrate CWC's commitment to making Wolverhampton an inclusive place to live, work and visit. The WLP will reduce inequalities by addressing the range of accommodation needs, protecting and expanding community facilities and encouraging inclusive design to improve community cohesion through increasing opportunities for social interaction, fostering a sense of place and reducing social inequalities. Overall, a positive residual effect on equality is anticipated.</p>

Table 19.2: Likely residual adverse sustainability effects of the WLP

Summary of residual adverse effects	
1	<p>Increased pollutant emissions and exposure of humans/biodiversity to poor air quality</p> <p>Various WLP policies alongside local, regional and national policies aim to reduce air pollution and promote sustainable and low-emission modes of transport. The policies will help to prevent unacceptable impacts on human health associated with air pollution; however, the introduction of 9,330 dwellings and 42.9ha of employment floorspace within Wolverhampton AQMA will be likely to result in further NO₂ and PM₁₀ emissions and result in an overall reduction in air quality on a potentially long-term basis when considered cumulatively.</p> <p>Over time, increased uptake of sustainable transport methods and a phasing out of petrol and diesel-powered cars by 2035, alongside other advances in technology, may reduce this impact to some extent.</p>
2	<p>Threats or pressures to locally designated and non-statutory biodiversity sites</p> <p>Although locally designated biodiversity sites will benefit from legislative protection, the WLP policies which aim to protect, conserve and enhance biodiversity are unlikely to fully mitigate the impacts of the proposed development at sites which coincide with SLINCs or are directly adjacent to SLINCs/SINCs, where there is potential for direct habitat loss or degradation of the habitats associated with the designations.</p> <p>When considered at a landscape scale, the construction of 9,330 dwellings and 42.9ha is likely to result in a long-term and permanent significant effect of locally designated biodiversity, flora and fauna sites.</p>
3	<p>Increased GHG emissions</p> <p>CWC aims to contribute positively to reducing GHG emissions particularly through policies requiring efficient design, the encouragement of sustainable and active methods of transport as well as the use of low carbon energy sources. However, the proposed development of 9,330 dwellings and 42.9ha of employment floorspace will be anticipated to increase domestic and traffic related GHG emissions to some extent, which is not expected to be fully mitigated through the policy provisions.</p> <p>An increase in GHG emissions is likely to be a long-term and permanent significant effect. Although, there is potential for technological advances and alternative solutions to reduce this impact over time.</p>
4	<p>Increased household waste generation</p> <p>It is difficult for CWC to specifically reduce waste generation within the Plan area through the WLP. Although the WLP does include policies which will work to reduce household and construction waste through increase composting, recycling and re-use of waste materials, waste production is still expected to increase to some extent. National trends indicate a general decrease in household waste generation, however the introduction of 9,330 dwellings and 42.9ha of employment land is expected to increase waste production to some extent, leading to a residual adverse effect.</p>
5	<p>Loss of soil resources</p> <p>Despite the WLP seeing to make the best and most efficient use of land through developing on brownfield and previously developed land, a small proportion of allocations will be expected to result in the loss of approximately 10.25ha of greenfield or previously undeveloped land which may have environmental or ecological value. The loss of permeable soils could potentially increase the risk of flooding, soil erosion and loss of soil biome, resulting in a loss of biodiversity across the Plan area.</p>
6	<p>Increased demand for water and wastewater management</p> <p>The increased population within the WLP area will be expected to increase demand on water infrastructure. Although Severn Trent Water has indicated they do not expect water supply infrastructure to be a constraint to development in Wolverhampton, there is potential for a residual adverse effect in regard to wastewater infrastructure when planned growth is considered in-combination with an increase in sewage production and potential for storm overflow events. It is likely that further monitoring and investment to wastewater infrastructure will be required to accommodate development.</p>

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 2004'¹⁹⁹, 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 CWC to offer individuals, businesses and other organisations an opportunity to submit representations regarding the WLP.
- 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.

¹⁹⁹ The Environmental Assessment of Plans and Programmes Regulations 2004. Regulation 13: Consultation procedures. Available at: <https://www.legislation.gov.uk/ukxi/2004/1633/regulation/13/made> [Date accessed: 27/08/24]

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



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