

**STAFFORDSHIRE &
STOKE-ON-TRENT
STRATEGIC
INFRASTRUCTURE
PLAN
2018-2038**

FINAL REPORT

ISSUED 29/09/2020

EXECUTIVE SUMMARY

Staffordshire & Stoke-on-Trent is a place of opportunity. Currently it is home to 1,126,239 people, with a further 62,223 forecast to live in the area within 20 years according to Office of National Statistics forecasts, although higher levels of population growth are likely.

Expected growth on such a substantial scale is testament to the economic strength and quality of life offered by the cities, towns and villages within Staffordshire & Stoke-on-Trent. But to be successful, growth requires infrastructure, and infrastructure needs investment.

To better understand the scale of the infrastructure challenge, Staffordshire County Council commissioned AECOM to prepare a Strategic Infrastructure Plan (SIP) for the county and Stoke-on-Trent City Council unitary authority area.

This report presents an overview of growth patterns and the infrastructure projects needed to support such growth, their costs, how much funding has already been secured or is expected toward their delivery and the funding gap for the period up to 2038. The Plan has been produced by AECOM based upon an analysis of available evidence provided by local authorities throughout Staffordshire and augmented by a desk based assessment of additional published information. The Plan involved further engagement with the eight Staffordshire District & Borough Councils, Stoke-on-Trent City Council and with strategic infrastructure providers.

It provides a high level, Staffordshire wide ‘snap-shot’ reflecting the position in 2018, but does not drill down into local infrastructure issues within each area in detail. It is not intended to supersede or replace local studies, some of which use different metrics that may better reflect local circumstances. Findings are based on common funding and cost assumptions and modelling work that may differ from those used in individual local infrastructure delivery plans and documents.

KEY FINDINGS FROM THE SIP

The following key findings have been established for the twenty year period to 2038:

- Staffordshire authorities are required to accommodate housing and economic growth, delivering on average **4,339 dwellings per annum, or 86,772 dwellings over the 20 year period**. This compares to completions of 23,110 dwellings across Staffordshire & Stoke-on-Trent from 2007/08 to 2017/18.
- ONS Population projections forecast a **population increase of 62,223 people (an increase of 5.5%)**.
- **103,830 additional jobs in Staffordshire & Stoke-on-Trent** are forecast by Staffordshire County Council, an increase of 21%.
- Delivering the necessary infrastructure to support that growth is **estimated to cost £4.27 billion** in 2018 terms. This represents an estimate of capital delivery costs only and does not include the additional annual revenue requirements and maintenance costs.
- The study has reviewed the potential costs of delivery alongside currently identified secured funding, potential funding from public, private and developer contributions highlighting a **remaining funding gap estimate of £1.80 billion** at 2018 prices.

INFRASTRUCTURE ASSESSMENT

The study has examined a comprehensive scope of infrastructure topics and has highlighted a number of key infrastructure issues facing Staffordshire & Stoke-on-Trent including:

- Growth in Staffordshire & Stoke-on-Trent over recent decades has created a deficit in existing infrastructure.
- In particular the growth in journeys by road and rail has not been matched by sufficient government investment to enhance the network. The Plan has identified that **major transport projects need to secure £839 million in funding**.
- Infrastructure capacity within Staffordshire & Stoke-on-Trent will also be affected by housing and economic growth in neighbouring areas. Housing pressure from the Greater Birmingham & Black Country Housing Market Area, will place pressure on Staffordshire’s infrastructure.
- Infrastructure planning in Staffordshire & Stoke-on-Trent must take into consideration the demands and capacities of infrastructure across the region as a whole. Major infrastructure investment is proposed on the regional strategic road network and rail network (including connections to HS2) which will have direct impacts on the sub regional and local network. The long term uncertainty of some of these major infrastructure projects makes it difficult to plan effectively to support that infrastructure and accommodate growth.
- Education demand will expand considerably over the next twenty years driven by the scale of housing growth planned. A number of school expansions and new primary and secondary schools will need to be built.
- To stay healthy, more residents and employees need to walk and cycle, and take fewer journeys by car. There is a need to invest in a transport system that enables this change. The principles of planning for public health benefits will need to be applied through carefully crafted Local Plan policies and land allocations. The concept of planning for healthy new settlements will need to apply to the larger scale site allocations.

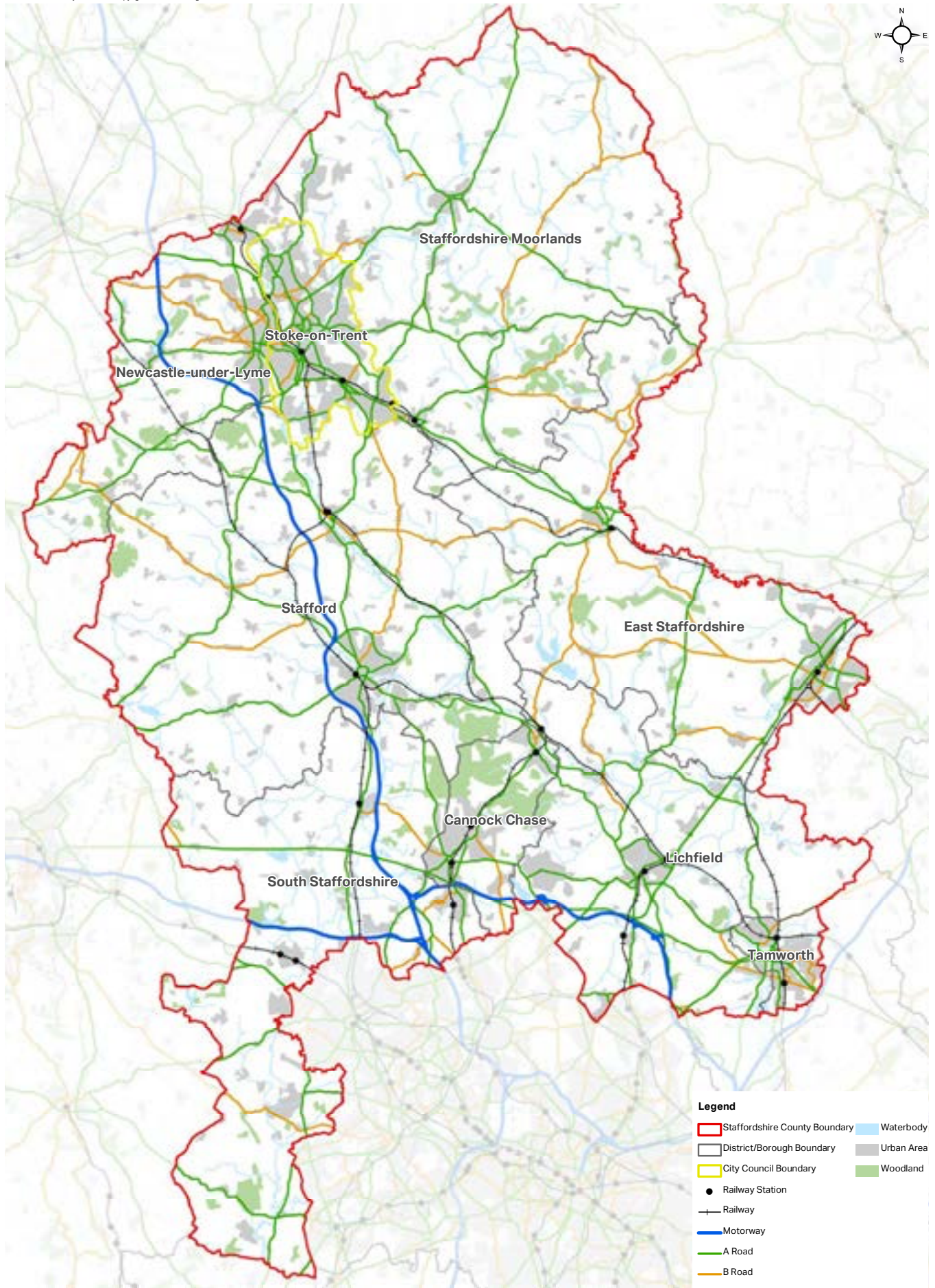


FIGURE A - STAFFORDSHIRE & STOKE-ON-TRENT CONTEXT MAP

Source: Local Authority data

- Pressure on the existing health and social care sector is acute and will continue to grow. There is also a drive to reconfigure acute hospital beds, and transfer further significant services into the community - promoting realignment of community and primary care facilities to benefit the need of the changing population demographics. This will require a different approach to facilitate co-location of public services and other community facilities. At the time of drafting the Strategic Infrastructure Plan the local health economies have been developing Sustainable Transformation Plans (STP) collaboratively with key stakeholders through the Clinical Commissioning Groups. The STPs will be the key documentation guiding strategic planning and change to the healthcare system.
- Staffordshire is shown to have a diverse, high quality landscape with numerous natural assets. Impacts from planned housing and economic growth will need to be mitigated through the provision of new strategic sites and also by enhancing the quality of existing sites, improving access and wider landscape management practices. Options for infrastructure provision and delivery may be limited by environmental constraints.

INFRASTRUCTURE FUNDING

- Existing funding will not deliver the scale of infrastructure investment identified in the Strategic Infrastructure Plan. Developer contributions (whether s106, s278 or CIL), local authority capital programmes or current public sector funds and grants will fall short.
- All local authorities in Staffordshire need to work together to devise an integrated package of funding sources and delivery mechanisms that meet the needs of different areas and types of infrastructure. Section 5 of the Plan presents a summary of potential options and the benefits and limitations of each.
- The challenge will need to be met in part through approaches that achieve the demands of residents and businesses through innovative services that require less capital investment. This change has already begun across many sectors, through integrated services, technological advances and redirecting service demand, for example to more cost effective solutions such as community healthcare and outpatient services to relieve pressure on acute hospitals.
- Given the funding gap, Staffordshire will have to prioritise infrastructure investment with the greatest impact. This requires further analysis to assess which projects are most important, and which funding sources are appropriate for Staffordshire. Authorities need to consider the potential for investment mechanisms, such as Local Delivery Vehicles and revolving investment funds, in the light of their capability and capacity to develop and manage such instruments.
- The SIP recognises the invaluable work undertaken by the local authorities, LEP and its partners across Staffordshire & Stoke-on-Trent to produce the Growth Deal Three bidding document and the level of work

required to arrive at a 'shortlist' of priority projects chosen to facilitate growth and deliver the greatest returns on investment. This approach may be one model to follow when determining prioritisation.

FUTURE ACTIONS FROM THE SIP

The following actions are suggested to take the Strategic Infrastructure Plan forward:

- Revisit the evidence base behind this study on a regular basis in collaboration with partners to maintain a rolling understanding of the infrastructure landscape and funding priorities. The local authorities involved should give consideration to the desired review and update mechanism for the SIP. This includes the level of information sharing and analysis, as well as how frequently this is undertaken. Future iterations of the SIP should utilise any new Infrastructure Delivery Plans prepared by the local authorities, a number of which are currently being updated.
- Consider the commissioning of detailed infrastructure topic specific assessments of infrastructure supply and demand modelling for the medium and long term to provide a more robust evidence base when planning over 20 year timeframes, which often exceed any organisation's planning horizon. This would support effective planning past the 5 - 10 years as is currently undertaken.
- Continued joint working between the Staffordshire authorities through sub regional partnerships and work with the Local Enterprise Partnerships and other local authorities in the West Midlands on strategic issues and priorities. This may include linkages to regional cities and routes to better connect the wider sub region. In addition, considering the impacts of major infrastructure proposals such as HS2.
- The potential for an organised SIP Engagement Forum between the Staffordshire authorities and relevant external partners such as the health sector, utility companies, Environment Agency, Highways Agency, Network Rail and other operators to consider greater integration on long term growth and infrastructure planning.
- Consider the joining up of infrastructure modelling across a much larger geography for subjects including transport models, waste water modelling, and social infrastructure models. Including holistic consideration of cross border requirements and aligned to planning and funding bid timetables.
- Use the evidence provided within the SIP and subsequent updated versions of it, to help review existing capital programmes to shape, prioritise and sense check project pipelines across a range of infrastructure work streams to optimise outcomes. The sequencing of capital infrastructure expenditure is very important, if this is done well it can offset future capital expenditure.

- Use the study as a tool for engagement with adjoining authorities to Staffordshire & Stoke-on-Trent.
- Use the study as a tool for engagement with Central Government and the National Infrastructure Commission (NIC) in demonstrating the challenges faced in supporting growth across Staffordshire and continue dialogue with the MHCLG, BEIS and other government departments on wider issues.
- Consider the implications of infrastructure providers' decisions both now and in the future. This study has used standard metrics to determine requirements for some infrastructure elements (such as healthcare, libraries, community and leisure, youth services, social care accommodation etc.), but the actual requirements will be heavily dependent on service decisions on new delivery models which are affected by regulatory, financial and technological changes.
- Explore further links between sub regional infrastructure planning as presented within the Staffordshire & Stoke-on-Trent SIP and opportunities and synergies between the requirements identified in this work and the continued review of local authority assets as part of the One Public Estate (OPE) programme.

A RECOMMENDED WAY FORWARD

The SIP outlines and identifies considerable funding and therefore delivery challenges to 2038. Given that housing delivery across Staffordshire & Stoke-on-Trent needs to double the current rate of provision for the next 20 years, the cost of the infrastructure required to support this growth equates to £4.27bn which amounts to £3,792 for every current resident. However, only 24% of the required funding has been secured and, while a further 33% is expected, there are no current funds for the remaining £1.80bn.

As well as some difficult decisions, the way forward will require radical and innovative funding solutions as well as a prioritisation approach that aligns with early stage business case development. This will involve:

- A focus on innovative large scale funding solutions, accepting that just leveraging up the current mix will not fix the funding gap. This may require new locally devolved tax raising measures and spreading the costs across many users and beneficiaries.
- Recognising that the capital investment needed to support infrastructure requires a different approach to planning particularly in relation to bringing forward land allocations. Generally the larger scale strategic development sites meet their infrastructure costs.
- A clear focus on securing the expected funding, otherwise the infrastructure funding gap rises to 76% and, as far as possible, working to remove uncertainty around major investments that will have a disproportionate long term impact on growth in Staffordshire & Stoke-on-Trent.
- Developing an infrastructure prioritisation matrix across Staffordshire & Stoke-on-Trent based on potential, deliverability and leverage of funding alongside wider factors such as the impact on productivity, the availability of additional funding streams and the impact on wider social issues such as deprivation.
- In terms of potential, this could, for example, focus on key locations that deliver the greatest housing numbers.
- As well as potential, there is a need to consider deliverability of homes and jobs so those schemes which are at an advanced stage (e.g. in terms of consenting, other funding in place, funding of partners, risks) would be considered a higher priority for infrastructure investments.
- Finally, given the funding gap, there should be a focus on funding leverage from public and private sectors so the minimum is invested for the maximum returns.

STAFFORDSHIRE & STOKE-ON-TRENT

THE PLAN IDENTIFIES THE FOLLOWING HEADLINES BETWEEN 2018 & 2038:

86,772
homes planned

62,223
new people (+ 5.5%)
based on ONS 2014 forecast

103,830
new jobs (+21%)

Total Infrastructure Costs: **£4,270,730,000**

Total Funding Gap: **£1,803,260,000**

Total Secured Funding: **£1,044,580,000**

% of Infrastructure Funded: **58%**

Total Expected Funding: **£1,803,260,000**

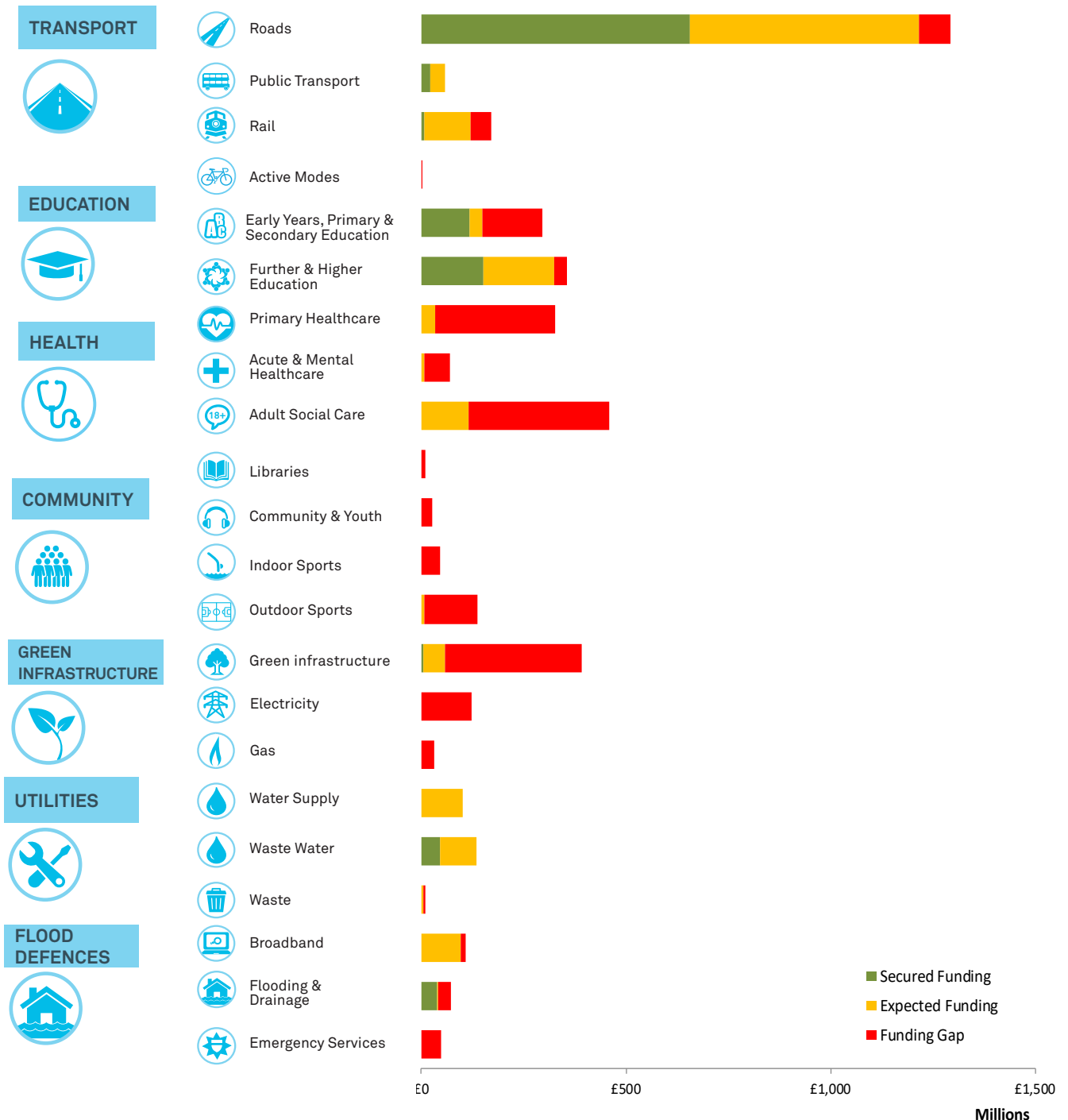


FIGURE B - SUMMARY OF INFRASTRUCTURE PROJECT COSTS AND FUNDING GAPS (2018-2038)

Figure B on the facing page illustrates the range of infrastructure required to support 86,772 new homes, 103,830 new jobs and 62,223 new residents. This infrastructure includes social infrastructure, transport, utility networks, open space and flood protection. The analysis highlights more than £4.27 billion in estimated infrastructure costs between 2018 and 2038.

Our analysis has reviewed the potential costs of infrastructure alongside currently secured funding, and potential funding from public, private and developer contributions, highlighting a funding gap of as much as £1.8 billion. Further analysis is required on the level of secured and potential funding.

Figures D and E on this page summarise the local infrastructure project costs for each of the local authorities. These figures do not include the cross border projects that benefit more than one authority. However, the figures do include strategic infrastructure projects that will support growth across a wider area than individual local authorities. The respective level of infrastructure investment set out for each of the local authorities therefore may not be necessary for individual local planning authorities to deliver their level of local housing need. This is considered in greater detail through the planning authorities Infrastructure Delivery Plans..

It should be noted a number of caveats are associated with the headline growth figures presented on the previous page. Section 7 of this document sets out the caveats, modelling benchmarks and assumptions behind cost and funding figures.

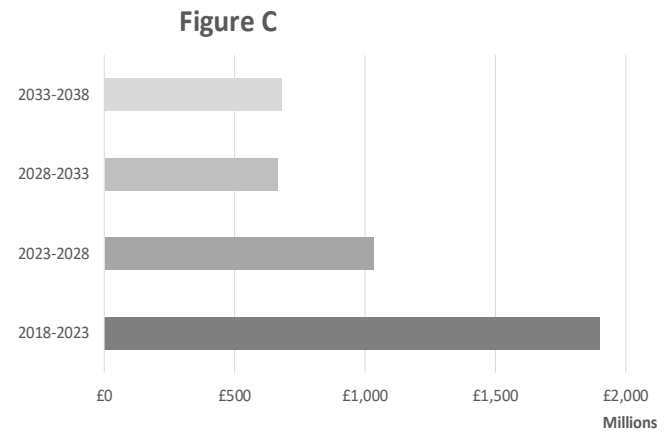


FIGURE C - TOTAL INFRASTRUCTURE COSTS

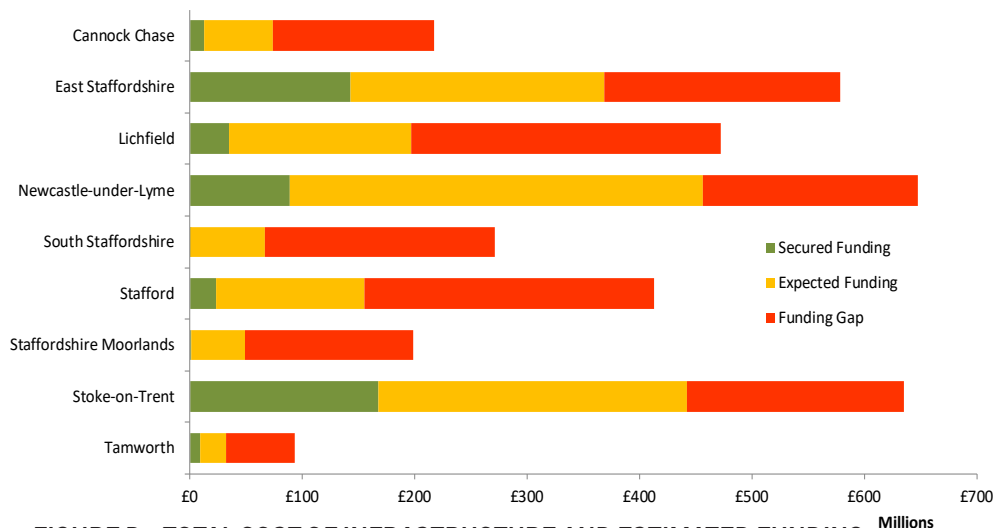


FIGURE D - TOTAL COST OF INFRASTRUCTURE AND ESTIMATED FUNDING

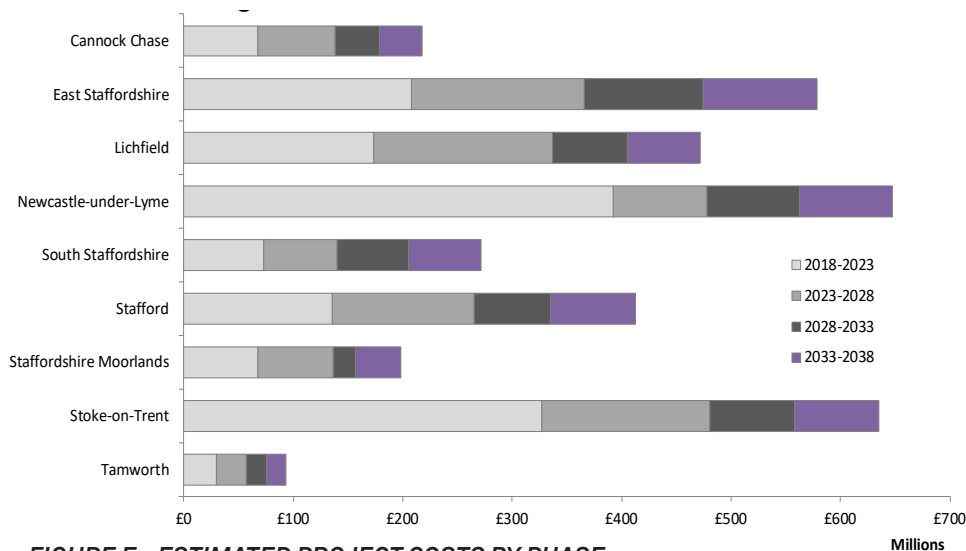


FIGURE E - ESTIMATED PROJECT COSTS BY PHASE

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01

The Staffordshire & Stoke-on-Trent Strategic Infrastructure Plan has been developed to demonstrate to Government, infrastructure providers, local communities and business the challenges being faced across Staffordshire in funding the infrastructure required to support and facilitate growth and enhance the lives of existing and future residents

INTRODUCTION

The Staffordshire & Stoke-on-Trent Strategic Infrastructure Plan has been prepared on behalf of Staffordshire County Council to provide a view of emerging development and infrastructure requirements to support growth from 2018 to 2038.

Across Staffordshire & Stoke-on-Trent, there is a need for a joint approach on infrastructure planning and funding. This has been identified as a priority within the context of Government's encouragement for Local Planning Authorities to come together formally and informally to address strategic planning and infrastructure issues.

However, a strategic overview of growth distribution and infrastructure provision is currently lacking across Staffordshire & Stoke-on-Trent. This document aims to provide that strategic overview for Staffordshire & Stoke-on-Trent to understand the infrastructure needs for the next 20 years.

This document begins to paint a strategic picture of the price of and risks to growth. It aims to:

- Collate and summarise population, housing and economic growth projections across Staffordshire & Stoke-on-Trent.
- Set out a combined understanding of the available capacity in current infrastructure and the pipeline of infrastructure projects.
- Highlight cumulative costs, funding streams and gaps in infrastructure funding.
- Facilitate discussion across partners by highlighting the core infrastructure issues which require attention in

order to deliver sustainable communities and economic growth.

- Enable the infrastructure investment required to promote balanced economic growth and support access to employment.

The Staffordshire & Stoke-on-Trent Strategic Infrastructure Plan has been produced for the following audiences:

- Members and officers of Staffordshire County Council, Stoke-on-Trent City Council, the eight District and Borough Councils in Staffordshire, and the Peak District National Park Authority who are the local planning authority for a large part of Staffordshire Moorlands.
- Sub-regional and regional organisations including the Local Enterprise Partnerships and Midlands Engine (including Midlands Connect) to inform priorities for investment to support growth objectives.
- Government and infrastructure providers to demonstrate the potential distribution of growth, infrastructure requirements and funding gaps.

SCOPE OF THE STUDY

The Staffordshire & Stoke-on-Trent Strategic Infrastructure Plan (SIP) covers all forms of infrastructure supporting the economic, environmental and social needs of the study area. The infrastructure scope covered in the report is comprehensive as illustrated in Figure 1.1.

This study has involved all of the local authorities in Staffordshire & Stoke-on-Trent; Staffordshire County Council, Stoke-on-Trent City Council and the eight District & Borough Councils.

The study is structured as follows:

- Section 2 provides an overview of how growth and infrastructure is planned across Staffordshire & Stoke-on-Trent.
- Section 3 sets out social and economic growth drivers and the potential distribution of development in Staffordshire.
- Section 4 provides an overview of infrastructure requirements across Staffordshire & Stoke-on-Trent for a range of infrastructure provision including education, health, community, transport, utilities and flood protection.
- Section 5 presents a commentary on delivery and funding issues affecting growth and infrastructure across Staffordshire.
- Section 6 identifies the recommendations and conclusions of the study.
- Section 7 details specific caveats supplied by some of the local authorities to accompany data provided.



FIGURE 1.1 - TYPES OF INFRASTRUCTURE WITHIN SCOPE OF STUDY



PROJECT METHODOLOGY

The Strategic Infrastructure Plan has been developed in two stages.

STAGE 1 TASKS UNDERTAKEN

Key tasks within Stage 1 of the Plan included establishing the following:

1. Data gathering from all project partners including baseline statistics, infrastructure topic specific data, GIS mapping data and strategy documents.
2. Reviewing the infrastructure planning landscape, and the social and economic context for the Strategic Infrastructure Plan.
3. Identifying the scale of growth to present within the SIP in terms of housing need, housing supply, housing sites, population growth, employment forecasts and employment sites.

4. Engagement with project partners to introduce the Plan and to gather required information involving:

- Staffordshire County Council commissioning and delivery teams across all county services (early years, primary and secondary education, further education, libraries, community and youth, sport and recreation, green infrastructure, Superfast Staffordshire, transport, flood risk)
- Stoke-on-Trent City Council delivery teams (early years, primary and secondary education, libraries, community and youth, sport and recreation, waste, green infrastructure, transport, flood risk)
- Local authority Infrastructure Delivery Plans (IDPs) available at project commencement. It is noted that a number of IDPs are currently being updated.
- External Infrastructure service provider meetings (Utilities, Strategic Transport and Healthcare).

5. Production of an infrastructure baseline and review of existing capacity issues where possible, including a geodatabase of GIS mapping layers, for Staffordshire & Stoke-on-Trent across all topics.

STAGE 2 TASKS UNDERTAKEN

Key tasks that were undertaken within Stage 2 of the SIP include the following:

1. Stage 1 draft document review by project partners
2. Re-engaged with project partners to review in detail the Stage 1 Draft Report, the working assumptions and data behind its development and the draft project schedule:
 - Targeted meetings with Staffordshire County Council commissioning and delivery teams to address outstanding issues in the Stage 1 document.
 - Engagement with local authority Planning teams to review local data and presentation of key issues and proposals.

- Targeted discussions with external infrastructure service providers where necessary to refine the SIP content.

3. Growth data verification, completions and sign off. Stage 1 was successful in establishing a draft position in terms of housing need and largely successful in terms of establishing the current known housing supply across the study area. There were some information gaps remaining due to the Local Plan work of a number of local authorities. Where possible Stage 2 has provided an opportunity to feed in previously unavailable housing and employment site data. Stage 2 has also allowed each local authority to agree a position for presentation and a full set of project caveats to accompany this.

4. The further development of the Stage 1 Project Schedule. The Stage 1 project schedule formed the basis of discussions with each of the project partners in Stage 2 of the project. Existing projects within the draft project list have been removed where no longer found to be appropriate and additional projects added where evidence for these have been provided.

5. An infrastructure costing review. The Stage 2 cost estimates for each of the infrastructure topics included existing information and analysis. All theoretical infrastructure requirements and associated cost estimates were reviewed with project partners. A benchmark sense-checking exercise was undertaken by AECOM's cost consultancy team to review the total infrastructure costs against the scale of economic and housing growth for each area. Where the infrastructure project schedule includes tangible projects with sufficient project details but no estimate on cost, the AECOM cost consultancy team provided estimated capital costs.

6. A funding and delivery review. As part of the project partner review of the project schedule all known infrastructure funding associated with projects have been recorded. As expected, a large proportion of the projects do not have details regarding funding options and the SIP therefore reviews potential funding levels from public and private sources. The SIP also includes a working assumption towards the scale of development contribution that may be generated across each local authority given the identified housing trajectory (whilst acknowledging the limited adoption of CIL across the authorities). The Stage 2 funding and delivery review also considers the wider role of partner organisations and their ability to fund and deliver infrastructure projects.

PARAMETERS OF THE STUDY

This study has been prepared in accordance with the following parameters:

A Snapshot in Time:

- The housing, employment and population projections presented in this document represent our understanding of the growth context at the time of writing the report, but it is recognised that this information is continually

evolving and should therefore be treated as a snap shot in time only for the period 2018-2038.

Population Projections:

- The study uses projected population growth from 2018 to 2038, from an ONS projection to 2038 (using 2014-based population data). This approach was agreed with partners across Staffordshire & Stoke-on-Trent.

Housing Growth:

- The study uses the Government standard methodology to calculate the minimum housing requirement (using 2014 based housing projections) as its basis. These figures have been replaced where local authorities have requested the study is based on figures within a current or emerging Local Plan.

Existing Housing Stock:

- The study uses current housing stock across Staffordshire from an ONS projection to 2038 (using 2014-based housing projections).

Housing Need:

- The study has used various existing Objectively Assessed Need (OAN) and Strategic Housing Market Assessment (SHMA) documents to compile an aggregate number of dwellings needed in Staffordshire & Stoke-on-Trent from 2018 to 2038.

Housing Supply:

- The study has collated the various housing supply trajectories supplied by each Local Planning Authority (LPA) to compile an aggregate number of dwellings in the housing supply trajectory to 2038.
- The study has also collated details of identified housing sites from all sources known to LPAs.

Employment Growth:

- The study uses the number of additional jobs to 2038, as calculated by Staffordshire County Council, based on sector-based Compound Annual Growth rates.
- The study has collated details of key employment sites likely to have implications for infrastructure provision from LPAs.

Infrastructure Need:

Current Infrastructure Provision

- The study collates detail of the scale, distribution and capacity of existing infrastructure across Staffordshire & Stoke-on-Trent, from available service data.

Infrastructure-Type Provision Benchmarks

- The study uses industry infrastructure need benchmarks in conjunction with projected population growth (from Section 3.1) or the number of dwellings needed (Section 3.2) to determine the necessary level of provision for each

type of infrastructure. The benchmarks used are set out in Section 7.2.

Project Schedule

- The study is supported by a schedule of planned projects across Staffordshire & Stoke-on-Trent to 2038. This schedule records all identified project requirements, including the infrastructure type, location and timing.
- The study models additional theoretical projects to deliver the necessary infrastructure and supplement the project schedule.

Infrastructure Cost:

Available Planned Costs

- The study collates detail of available planned project costs.

Theoretical Costings

- The study supplements available costings with AECOM costing advice. The sources for these costings and caveats applicable to AECOM's costings are set out in the report.

Total Cost

- The study aggregates these costings to estimate the total cost in 2018 terms of providing the necessary infrastructure.

Secured and Expected funding

Secured Public and Private Funding

- The study estimates secured funding from public and private sources to 2038 by aggregating detail of known funds committed to planned projects.

Expected Public and Private Funding

- In addition to the secured funding recorded, the study also estimates the potential scale of funding from public and private sources to 2038 by applying benchmark assumptions about likely funding for future projects. These assumptions are set out in the report.

Expected Developer Contributions

- The study estimates the funding from developer contributions to 2038, by applying a flat rate of developer contributions per dwelling against the number of dwellings planned in the aggregated Staffordshire housing supply trajectory to 2038.

Funding Gap

- The estimated funding gap is determined by subtracting secured and expected funding contributions from the estimated total costs. This is set out in the report.

02

PLANNING FOR INFRASTRUCTURE IN STAFFORDSHIRE & STOKE-ON-TRENT

THE BASIS OF THE STUDY

THIS STUDY DRAWS TOGETHER INFORMATION AND DATA FROM A RANGE OF SOURCES. IT SEEKS TO PIECE TOGETHER A STRATEGIC PERSPECTIVE OF GROWTH AND INFRASTRUCTURE PROVISION IN STAFFORDSHIRE & STOKE-ON-TRENT AT THE PRESENT TIME AND 20 YEARS INTO THE FUTURE.

It draws on the following information:

- Adopted and emerging Local Plans and Infrastructure Delivery Plans for all local authorities within Staffordshire & Stoke-on-Trent
- Local authorities' Local Plan evidence bases
- Other existing and emerging information, strategies and plans from local authorities across Staffordshire & Stoke-on-Trent with GIS database information provided by Staffordshire County Council and Stoke-on-Trent City Council
- ONS Census Sub National Population Projections (2014-based estimates)
- ONS Household Projections (2014-based estimates)
- Information from other infrastructure provider's plans including utility providers, the Environment Agency, Network Rail, Highways England and the National Health Service (NHS).

The study is based on a detailed analysis of issues in Staffordshire & Stoke-on-Trent relating to growth and infrastructure as at 2018. It should be recognised that this presents a snapshot in time and is not produced to meet a specific statutory requirement.

INFRASTRUCTURE PROVIDERS

THE COMPLEX RELATIONSHIP BETWEEN INFRASTRUCTURE REQUIREMENTS AND PROVIDERS ACROSS STAFFORDSHIRE & STOKE-ON-TRENT IS SHOWN IN FIGURE 2.1. THE COUNTY AND THE LOCAL AUTHORITIES PLAY A VITAL ROLE IN THE SUPPLY OF INFRASTRUCTURE. IN ADDITION A NUMBER OF PUBLIC, NOT-FOR-PROFIT AND PRIVATE ORGANISATIONS HAVE RESPONSIBILITY TO PROVIDE INFRASTRUCTURE TO SUPPORT EXISTING POPULATION AND PROPOSED GROWTH.

This study covers the following aspects of infrastructure provided by the local authorities:

- Mainstream education (early years and childcare, primary, secondary, higher and further education and community learning). The scope of this work does not include special school and alternative provision infrastructure requirements.
- Other social infrastructure (libraries, adult social services and youth services, public health, community and sports facilities, parks and recreation)
- Highways and transport
- Waste management

In addition, other providers' requirements have been investigated including:

- Healthcare (NHS)
- Highways (Highways England)
- Green infrastructure providers (e.g. Royal Society for the Protection of Birds (RSPB), National Trust, Department for Environment, Food & Rural Affairs (Defra), and Staffordshire Wildlife Trust)
- Railway and bus operators
- Utility services
- Other significant infrastructure (e.g. Environment Agency)

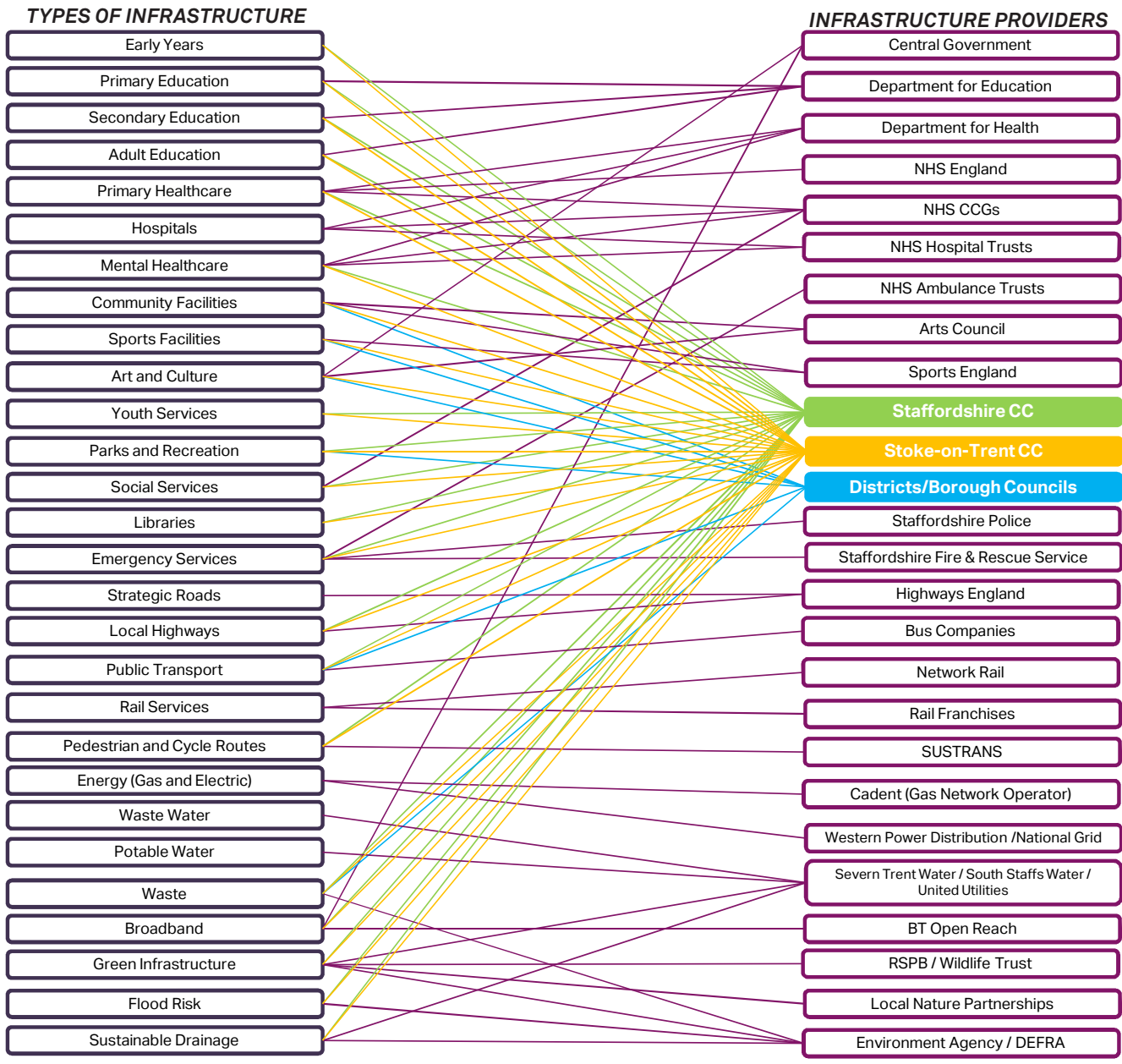


FIGURE 2.1- THE COMPLEX PATTERN OF INFRASTRUCTURE PROVISION IN STAFFORDSHIRE & STOKE-ON-TRENT
The list of infrastructure providers is for demonstration purposes and not exhaustive



PLANNING FOR INFRASTRUCTURE

Planning for infrastructure provision is critical to ensure infrastructure is in the right place, built at the right time, and sufficient to unlock opportunities into the future. The current approach to infrastructure planning and delivery in Staffordshire & Stoke-on-Trent is described below and illustrated in [Figure 2.2](#).

Planning for the use of space in England, including the placement of infrastructure, is regulated by Central Government through legislation, including the Planning and Compulsory Purchase Act 2004. This legislation is supported by the National Planning Policy Framework (NPPF), introduced in 2012 and last revised in February 2019, and associated Planning Practice Guidance issued by the Ministry of Housing, Communities and Local Government (MHCLG).

Responsibility for this spatial planning at a local level is held by the Boroughs, Districts and City Council within the study area in their capacity as designated Local Planning Authorities (LPAs), whilst Staffordshire County Council is the planning authority for minerals and waste for the Staffordshire County area.

Each LPA is required by the Planning and Compulsory Purchase Act to produce a Local Plan setting out, amongst other things, intentions for growth in jobs and dwellings across their area.

LPAs should make clear in their Local Plan what infrastructure will be required for at least the first five years of its duration, how that infrastructure will be funded, who will provide it, and how that infrastructure relates to the anticipated rate and phasing of development. These strict requirements are more relaxed later in the Local Plan period, reflecting the greater uncertainty about infrastructure need and provision over time.

The Act also provides that each Local Plan must be supported by an Infrastructure Delivery Plan (IDP), setting out the economic and social infrastructure planned to support the growth in jobs and dwellings set out in the Local Plan. An IDP also informs development of Community Infrastructure Levy (CIL) rate, which LPAs are empowered to charge developers, under the Planning Act 2008, to support infrastructure provision. (See Section 5.2 for further information).

Each LPA in Staffordshire & Stoke-on-Trent is at a different stage in ensuring their Local Plan is up to date, as set out in [Table 2.1](#), opposite. Some are updating an existing Local Plan to ensure consistency with the subsequently introduced NPPF and others are developing an IDP to support an existing Local Plan.

Central government bodies, such as the Environment Agency, Highways England and Network Rail, also have important roles as providers of infrastructure in Staffordshire & Stoke-on-Trent.

Local Enterprise Partnerships between local authorities and businesses were established in 2011 to inform local economic priorities and undertake activities to drive economic growth. The study area is covered by the Stoke-on-Trent & Staffordshire Local Enterprise Partnership (SSLEP). Additionally, the Greater Birmingham & Solihull LEP area includes some district/boroughs in Staffordshire (Cannock Chase, East Staffordshire, Lichfield and Tamworth).

Recognising that the geographic areas covered by individual LPAs are not isolated, but are interconnected and interdependent, the Localism Act 2011 creates a duty for LPAs to co-operate with various infrastructure providers on strategic planning issues. Such issues are often, but are not exclusively, where service or infrastructure provision crosses LPA boundaries.

Within and above this statutory duty to cooperate, continued dialogue and close collaboration between local authorities and infrastructure providers is essential to ensure infrastructure planning and delivery is adequate to meet growing demand.

In Staffordshire & Stoke-on-Trent, the County, the City and the eight District & Borough Councils have agreed that there is value in bringing together the existing evidence bases held by various LPAs and infrastructure providers, to produce a higher-level view of the infrastructure needs and challenges facing the whole of Staffordshire. This document seeks to support these important sub-regional level discussions.

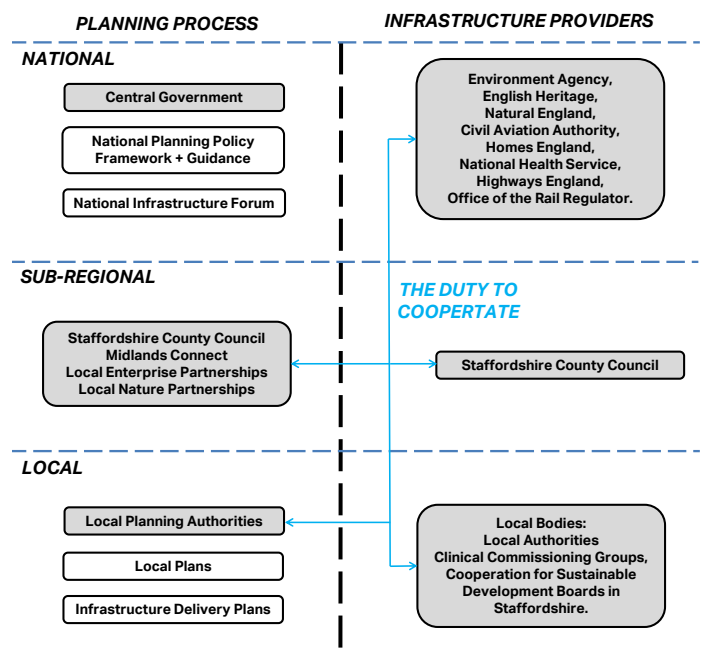


FIGURE 2.2 - THE CURRENT PLANNING PROCESS AND INFRASTRUCTURE PROVISION IN STAFFORDSHIRE & STOKE-ON-TRENT

Authority	Local Plan position	Plan Period	Emerging Local Plan Progress
Cannock Chase	Adopted in June 2014	2006-2028	Submission of Local Plan to examination anticipated August / September 2021.
East Staffordshire	Adopted in October 2015	2012-2031	
Lichfield	Adopted in February 2015. Local Plan Allocations Document adopted in July 2019.	2008-2029	Local Plan Review commenced 2018-2040, proposed for adoption on 2022.
Newcastle-under-Lyme*	Adopted in 2009 (<i>Core Spatial Strategy</i>)	2006-2026	Joint Local plan process with Stoke-on-Trent. Submission expected in mid-2021. New Plan will cover the period to 2037.
South Staffordshire	Adopted in December 2012	2006-2028	Will submit a new Local Plan in 2021.
Stafford	Adopted in June 2014	2011-2031	Local Plan review was initiated in July 2017, which has resulted in plans for a new Local Plan
Staffordshire Moorlands	Core Strategy adopted in 2014	2006-2031 (<i>main modification will amend this to 2014-2033</i>)	New Local Plan submitted in June 2018 (adoption expected in 2019)
Tamworth	Adopted in February 2016	2006-2031	
Stoke-on-Trent*	Adopted in 2009 (<i>Core Spatial Strategy</i>)	2006-2026	Joint Local plan process with Newcastle-under-Lyme. Submission expected in mid-2021. New Plan will cover the period to 2037.

*Newcastle-under-Lyme Borough Council and Stoke-on-Trent City Council's Local Plan is jointly produced.

TABLE 2.1 - LOCAL PLAN STATUS

Authority	Availability of IDP / Infrastructure Evidence Base	IDP / Evidence Base Assessment Period
Cannock Chase	Cannock Chase District Council - Infrastructure Delivery Plan - May 2014	2006-2028
East Staffordshire	Infrastructure Audit and Delivery Plan - Infrastructure Delivery Plan - October 2013	2013-2031
Lichfield	Infrastructure Delivery Plan - March 2018	2018-2029
Newcastle-under-Lyme*	Open Space & Green Infrastructure Strategies, Strategic Flood Risk Assessment	2011-2031
South Staffordshire	Infrastructure Delivery Plan - November 2016, and October 2018 update	2016-2028
Stafford	Stafford Borough Infrastructure Strategy - Infrastructure Delivery Plan - July 2012	2011-2031
Staffordshire Moorlands	Infrastructure Delivery Plan Final Report - February 2018	2016-2031
Tamworth	Tamworth Borough Council Infrastructure Delivery Plan - August 2018	2006-2031
Stoke-on-Trent*	Open Space & Green Infrastructure Strategies, Strategic Flood Risk Assessment	2011-2031

*Newcastle-under-Lyme Borough Council and Stoke-on-Trent City Council's IDP is jointly produced.

Caveats: Caveats apply to each local authority which cannot all be presented on this page. Refer to Section 7 for details.

TABLE 2.2 - LOCAL AUTHORITY INFRASTRUCTURE DELIVERY PLANS

STAFFORDSHIRE & STOKE-ON-TRENT IN CONTEXT

In considering the growth across Staffordshire & Stoke-on-Trent to 2038 it is important to consider the growth in housing, employment sites and infrastructure planned nearby, including in the surrounding counties.

STRATEGIC HOUSING DEVELOPMENTS

Figure 2.3 on the facing page illustrates a conservative estimate of planned large housing sites across Staffordshire, Stoke-on-Trent and adjoining local authorities between 2018 and 2038 (where the information is publicly available).

Also illustrated in Figure 2.3 are a number of possible housing development sites which are proposed in neighbouring authorities and are considered likely to impact on the strategic infrastructure that also serves Staffordshire, in particular transport. These sites include:

- Drakelow Park, Derbyshire
- Housing sites near Telford
- Housing sites in Wolverhampton eg Ward Street Masterplan Site, the former Goodyear Site as well as Bilston and Willenhall Garden Villages.
- Polesworth, North Warwickshire
- Dordon, North Warwickshire
- Icknield Port Loop, Birmingham

STRATEGIC EMPLOYMENT DEVELOPMENTS

Planned employment growth in the surrounding area is also likely to affect growth in Staffordshire. These sites include:

- Drakelow Park, Derbyshire
- Crewe HS2 Hub
- Land south east of M42 J10
- Birch Coppice
- Peddimore, Sutton Coldfield

INFRASTRUCTURE PLANNING

The significant growth in housing and economic activity planned adjoining Staffordshire & Stoke-on-Trent is also to be supported by significant infrastructure investment, some of which will also affect Staffordshire & Stoke-on-Trent.

The Midlands Connect Strategy highlights some of the regional transport projects that will have a direct impact or benefit to Staffordshire & Stoke-on-Trent. The following are in some cases regional but in other cases nationally significant infrastructure projects in Staffordshire & Stoke-on-Trent and adjoining areas:

- High Speed 2 railway
- M6 Smart Motorway
- A38 improvements
- M54 to M6 link road
- Midlands Rail Hub
- Midlands Motorway
- A5 corridor improvements
- A500 / A50 improvements
- Creation of a new Major Roads Network

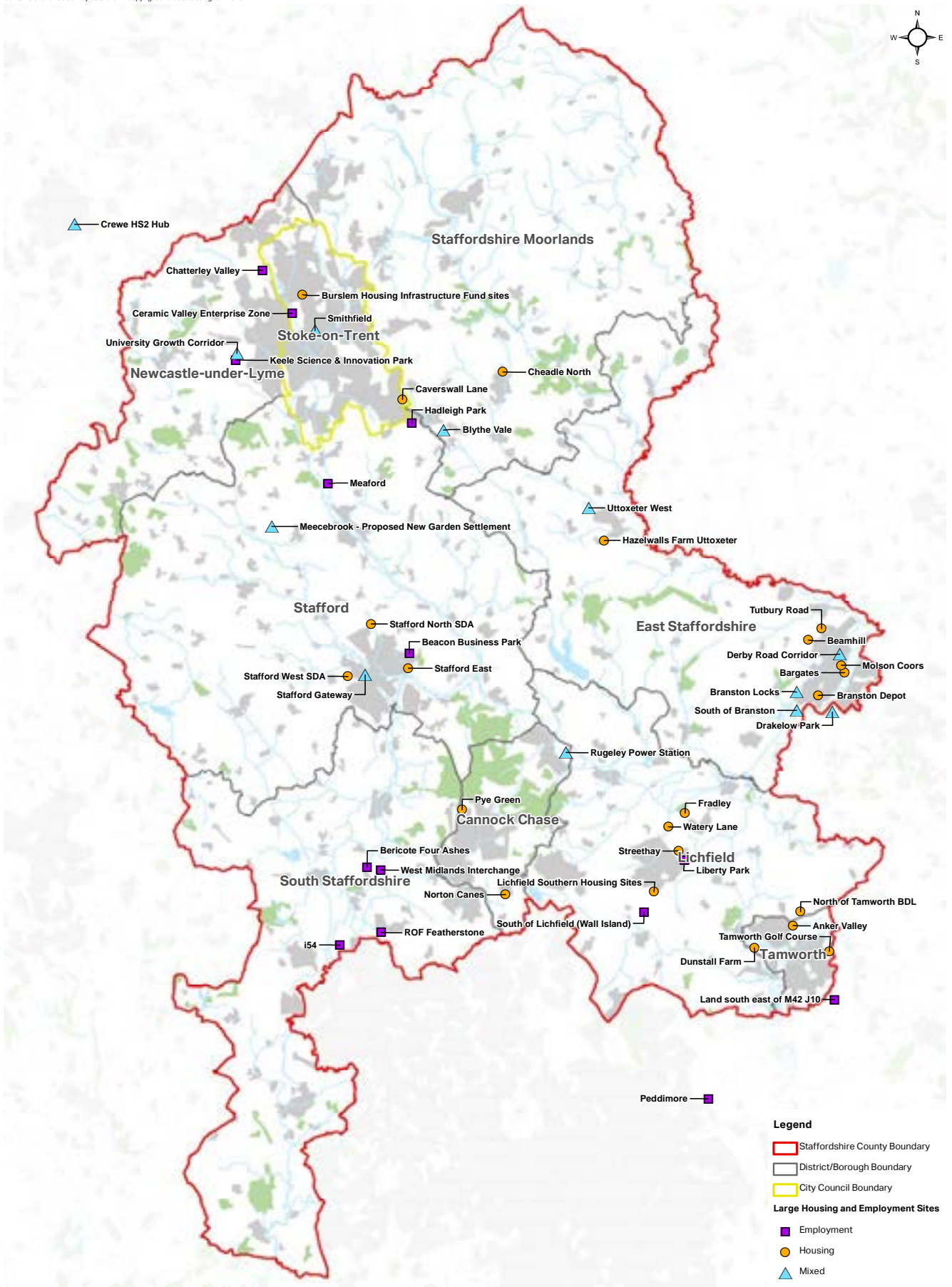


FIGURE 2.3 - KEY STRATEGIC SITES FOR STAFFORDSHIRE & STOKE-ON-TRENT AND SURROUNDING LOCAL AUTHORITIES

Source: Staffordshire County Council

03

THE KEY ISSUES IN PLANNING FOR GROWTH IN STAFFORDSHIRE & STOKE-ON-TRENT

UNDERSTANDING EXPECTED GROWTH

THIS SECTION SUMMARISES THE KEY ISSUES IN PLANNING FOR GROWTH IN STAFFORDSHIRE & STOKE-ON-TRENT TO 2038

Planning for growth in Staffordshire & Stoke-on-Trent is currently achieved through a Local Plan process on a local authority basis. This chapter aims to present the context for the growth requirements of the study area and the current planned growth areas highlighted within each authority's Local Plan.

This comprises:

A SOCIAL PORTRAIT

- ONS Population forecasts to 2038
- Current socio-demographic issues and trends likely to impact on growth and infrastructure provision

A HOUSING PORTRAIT

- Current housing stock and completions
- Housing need and supply forecasts to 2038
- An understanding of housing growth requirements and planned growth locations

AN ECONOMIC PORTRAIT

- Assessment of current economic issues and trends that are likely to impact on growth and infrastructure provision in Staffordshire & Stoke-on-Trent
- An understanding of forecast economic growth and planned growth locations

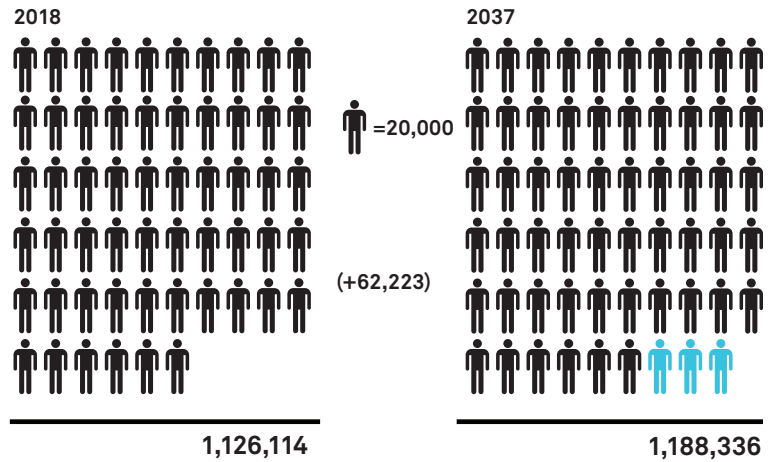
This growth context is then used as the basis for examining infrastructure requirements in the remainder of this study.

3.1 SOCIAL PORTRAIT

POPULATION CHANGE

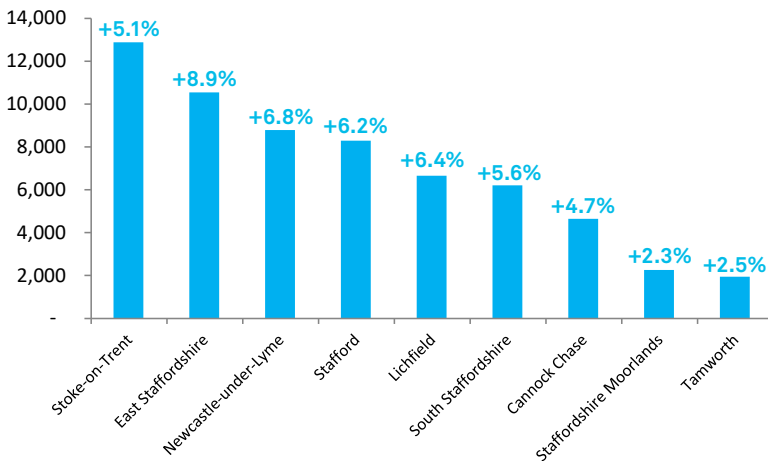
The ONS population projections are based upon Census population estimates, natural change and migration trends. They are unconstrained projections used by Central Government departments and agencies and specifically by MHCLG to produce the latest housing and economic need assessments.

According to ONS projections the population of Staffordshire and Stoke-on-Trent is set to increase by 62,223 people between the years 2018 and 2037. The total population of the county is expected to rise from 1,126,114 to 1,188,336 over the 20-year study period, an increase of 5.5%.



Source: Population projections - local authority based by single year of age, 2014-based

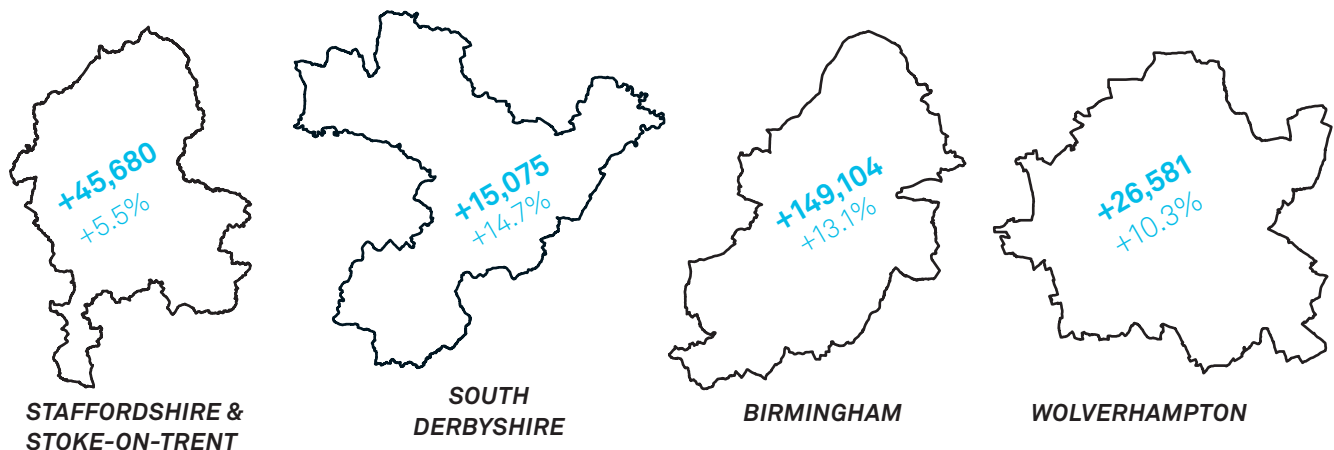
FIGURE 3.1 PROJECTED POPULATION CHANGE 2018-2037



Source: Population projections - local authority based by single year of age, 2014-based

FIGURE 3.2 PROJECTED POPULATION CHANGE BY LOCAL AUTHORITY 2018-2037

The proportional change in Staffordshire & Stoke-on-Trent population is lower compared to the population change in neighbouring counties to 2037. It is also less than the West Midlands population growth rate (9.9%), and England (11.8%). However, the West Midlands faces challenges in meeting its housing need, placing pressure for housing growth in the region. This will clearly impact on population growth rates across the region.



Source: Population projections - local authority based by single year of age, 2014-based

In 2017 the natural increase in Staffordshire & Stoke-on-Trent was 552 people:



FIGURE 3.3 - 2017 NATURAL POPULATION INCREASE (STAFFORDSHIRE & STOKE-ON-TRENT)

Source: Birth Summary Tables & Death Summary Tables 2017 – England and Wales (ONS, 2018)

Mid-2016 to mid-2017, there was net international migration of 1,789 people into Staffordshire, and 1,259 people into Stoke-on-Trent

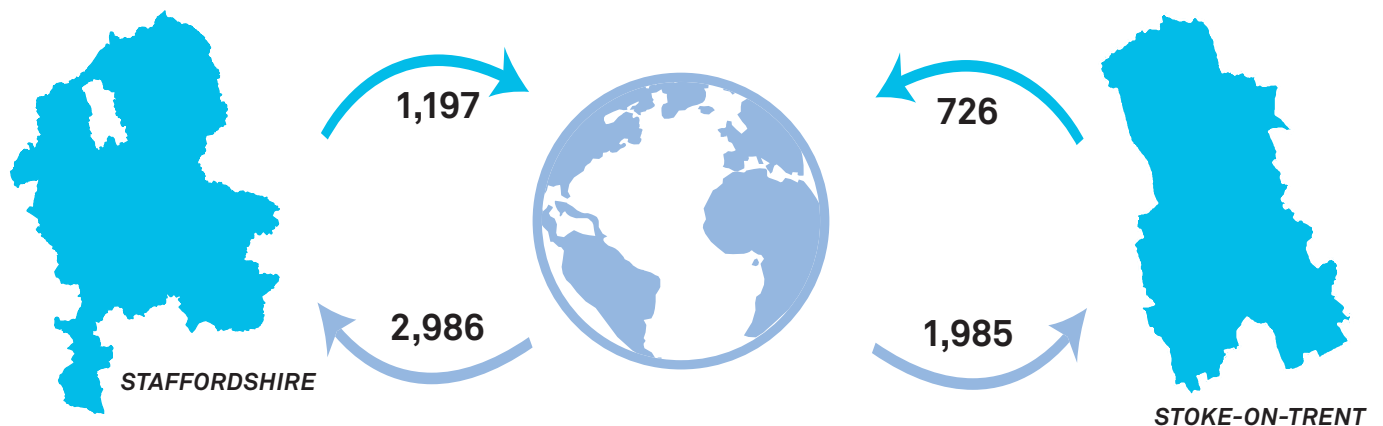


FIGURE 3.4 - MID 2016-MID 2017 NET INTERNATIONAL MIGRATION

Source: Local Area Migration Indicators 2017, (ONS, 2018)

Mid-2016 to mid-2017, there was net domestic migration of 1,976 people into Staffordshire, and 375 out of Stoke-on-Trent

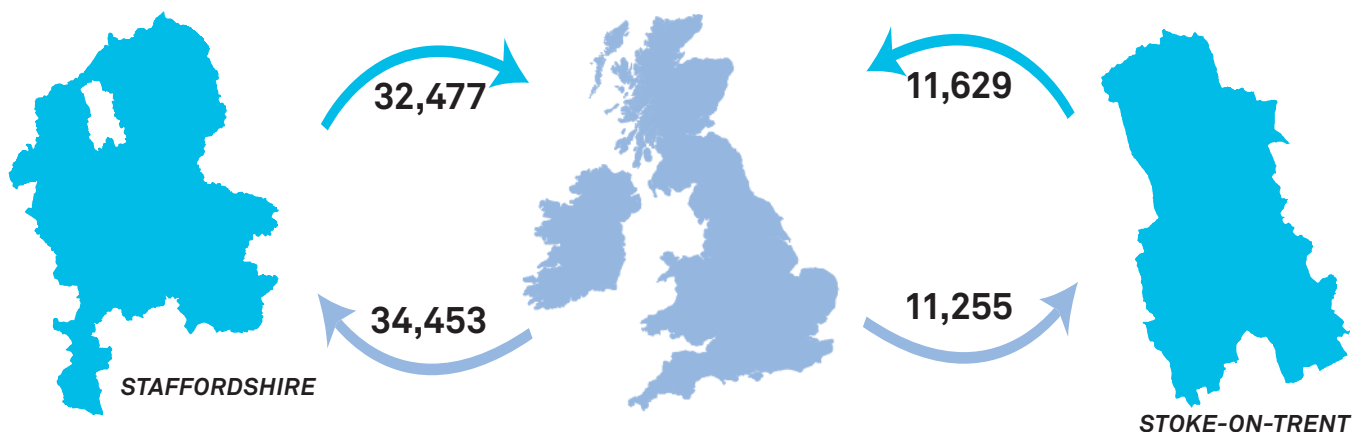


FIGURE 3.5 - MID 2016-MID 2017 NET DOMESTIC MIGRATION

Source: Local Area Migration Indicators 2017 (ONS, 2018)

The population is ageing: The greatest increase in age categories in absolute terms is predicted to be those over 65. The greatest reduction in population is predicted to be the working age 50-54 year age cohort.

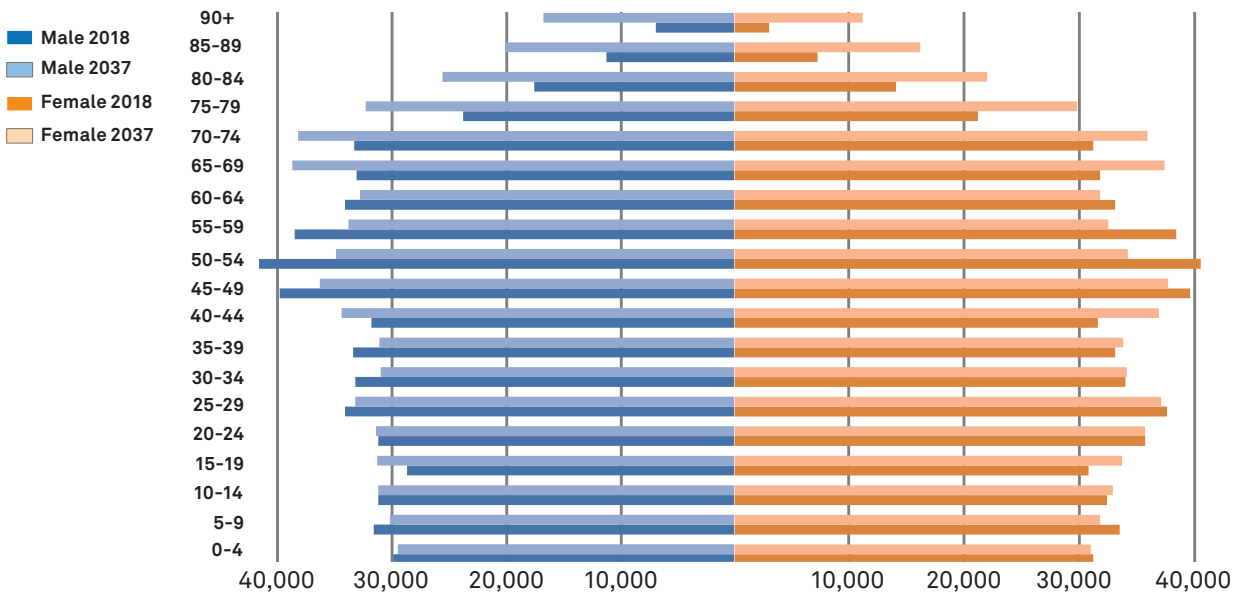


FIGURE 3.6 FORECAST CHANGE IN AGE PROFILE IN STAFFORDSHIRE & STOKE-ON-TRENT 2018-2037

Source: 2014 based ONS Sub National Population Projections

Population forecasts by age cohort reveal a distinct trend of an ageing population across Staffordshire & Stoke-on-Trent. An ageing population adds stress to existing social infrastructure through increased demand. As the elderly age cohorts grow there will be a demand for new types of housing, additional healthcare and improved accessibility to infrastructure. These additions are necessary however they can result in considerable additional costs to local authorities.

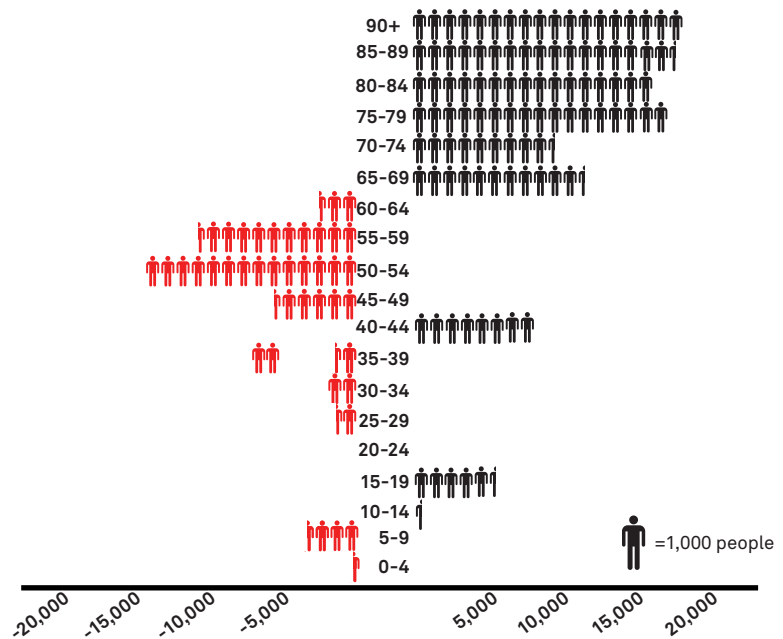


FIGURE 3.7 POPULATION CHANGE BY AGE COHORT

Source: 2014 based ONS Sub National Population Projections

Over the 20-year period of 2018 to 2037 the proportion of 16-64-year olds in the population is forecast to fall from 62% to 56%. Conversely, over the same period the proportion of 65+ within Staffordshire & Stoke-on-Trent is set to rise by from 21% to 27% of the population. The result of these changes is a greater number of dependant persons against a smaller tax base. This has the potential to create an economic challenge for the county in terms of infrastructure provision.

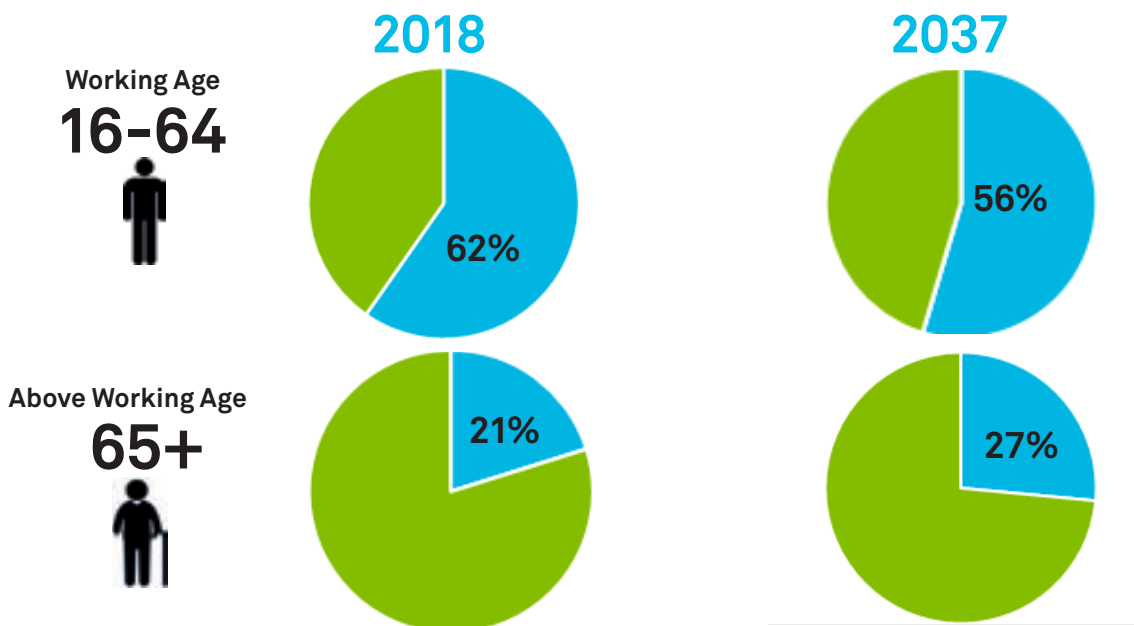


FIGURE 3.8 - FORECAST CHANGE IN STAFFORDSHIRE & STOKE-ON-TRENT WORKING AGE COHORT

Source: 2014 based ONS Sub National Population Projections

As the elderly population increases this has the potential to create greater demand for smaller dwellings including accessible apartments and extra care housing. Elderly residents may however prefer not to downsize which would also present challenges to prices in the housing market as larger family homes are not made available to younger and larger families.

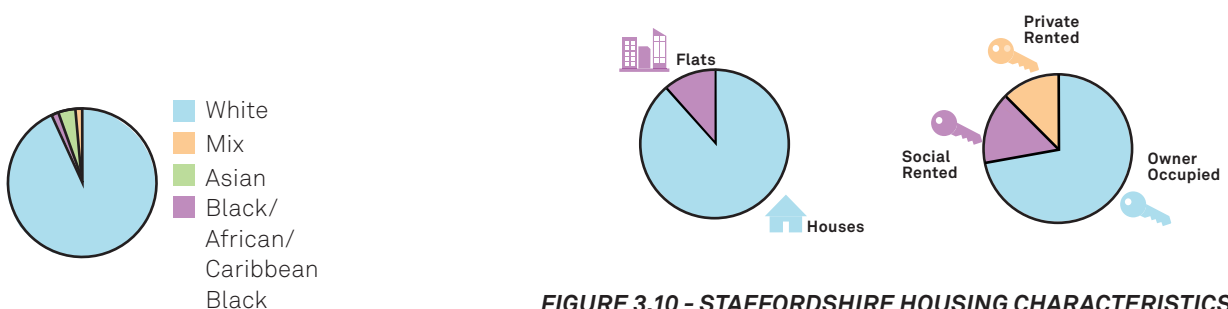


FIGURE 3.9 - STAFFORDSHIRE POPULATION CHARACTERISTICS Source: ONS 2011

The resident population of Staffordshire & Stoke-on-Trent in 2011 is relatively homogeneous with approximately 93% of the population identifying as white

FIGURE 3.10 - STAFFORDSHIRE HOUSING CHARACTERISTICS

Source: ONS 2011

Over 88% of the current housing stock in Staffordshire & Stoke-on-Trent are houses

The current population of Staffordshire mostly own their homes (72%) with few renting (11%) or in social housing (17%)

Quality of life is relatively strong, but with pockets of high deprivation across Staffordshire & Stoke-on-Trent

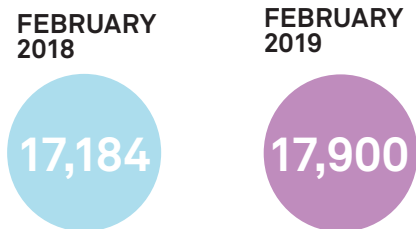
As demonstrated in [Figure 3.13](#), Stoke-on-Trent has some of the highest levels of deprivation across the study area, with 32.1% of its neighbourhoods (measured by Lower Super Output Areas (LSOAs)) being within the most deprived 10 per cent of neighbourhoods nationally. When viewed together (Staffordshire & Stoke-on-Trent), only 9.0% of the study area's neighbourhoods feature in the 10% most deprived areas of the country. This suggests there are higher levels of deprivation in Stoke-on-Trent than Staffordshire.

Pockets of deprivation are apparent in the urban areas of Staffordshire including Newcastle-under-Lyme and Tamworth. Significant pockets of deprivation are noted in areas to the South of Staffordshire including Wolverhampton, Walsall, Dudley, Sandwell and Birmingham.

Deprivation in Staffordshire & Stoke-on-Trent is most pronounced in the Education, Skills & Training domain. 13.1% of LSOAs in the study area fall in the top 10% most deprived neighbourhoods in England in this domain. This is followed by Health Deprivation and Disability (11.9%) and Employment (8.7%).

The most deprived neighbourhood in the study area is 017E in Stoke-on-Trent, ranked 445th most deprived neighbourhood out of England's 32,844 LSOAs. This places it in the top 2% of England's most deprived neighbourhoods, alongside Stoke-on-Trent 015D and 013E. The most deprived area in Staffordshire county is Newcastle-under-Lyme 010B, featuring in the 6% most deprived neighbourhoods in England.

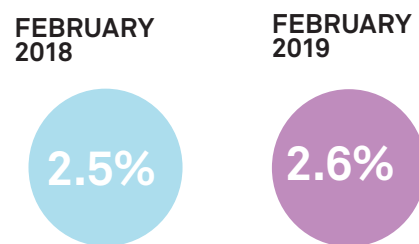
Figures 3.11 and 3.12 present the unemployment claimant count and claimant rate for Staffordshire & Stoke-on-Trent. 2.6% of Staffordshire & Stoke-on-Trent's working age population (16-64) are in the Alternative Claimant Count, as at February 2019. An analysis of the number of the Alternative Claimant Count from February 2018 to February 2019 shows an increase from 17,184 to 17,900.



Source: GOV.UK, 2019

FIGURE 3.11 - ALTERNATIVE CLAIMANT COUNT IN STAFFORDSHIRE & STOKE-ON-TRENT

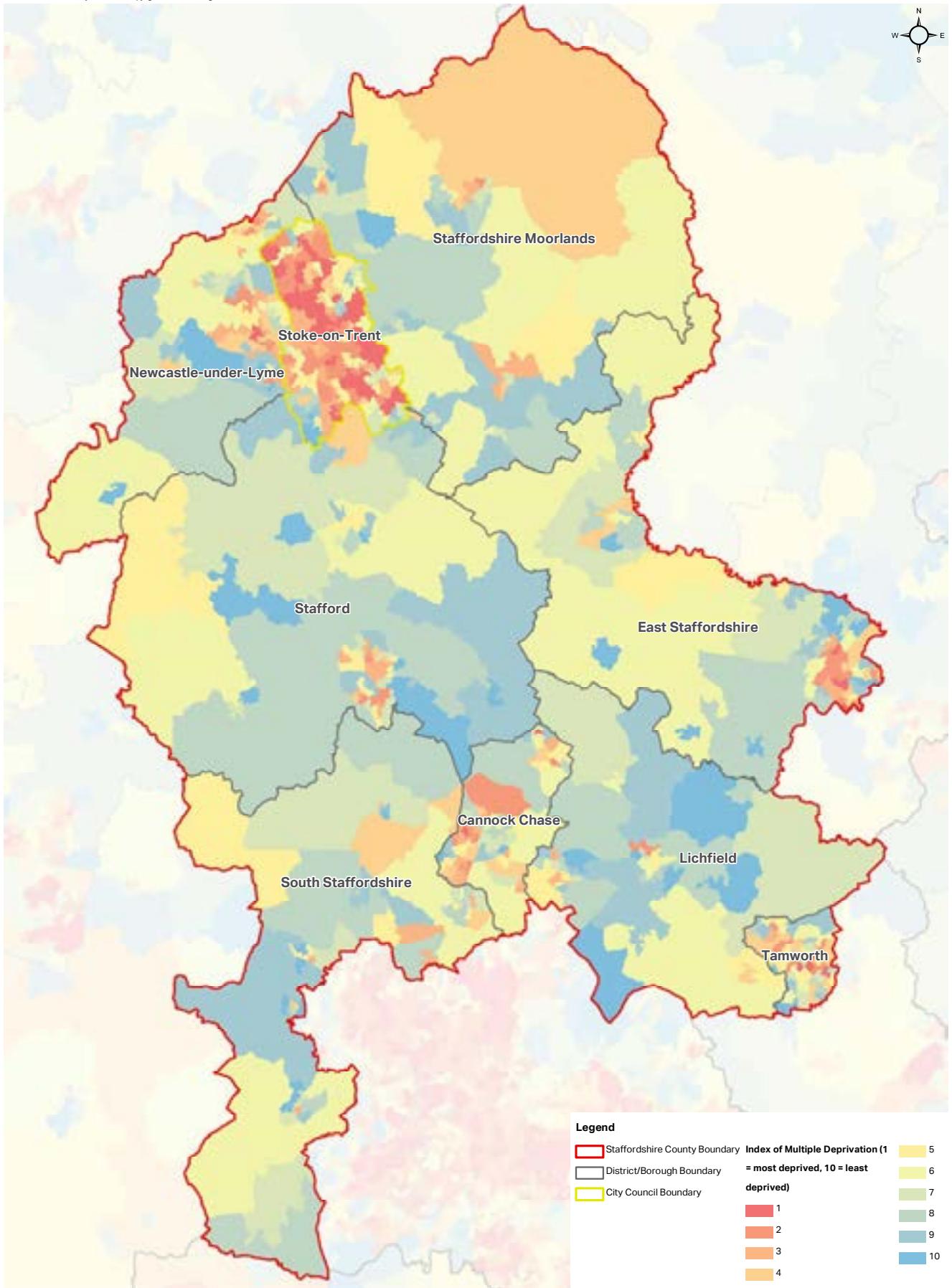
The Alternative Claimant Count statistics measure the number of people claiming unemployment related benefits by modelling what the count would have been if Universal Credit had been in place since 2013. This is to mitigate the skewed numbers that are seen as a result of the move from Job Seekers' Allowance to Universal Credit.



Source: GOV.UK, 2019

FIGURE 3.12 - CLAIMANT UNEMPLOYMENT RATE (BASED ON ALTERNATIVE CLAIMANT COUNT) FOR STAFFORDSHIRE & STOKE-ON-TRENT

The claimant unemployment rate has been calculated with the most recent mid-year population for residents aged 16-64, in line with ONS methodology.



Source: Index of Multiple Deprivation 2019 (MHCLG, 2019)

FIGURE 3.13 - INDEX OF MULTIPLE DEPRIVATION ACROSS STAFFORDSHIRE & STOKE-ON-TRENT (2019) - OVERALL IMD DOMAIN

3.2 HOUSING PORTRAIT

EXISTING HOUSING

There are approximately 483,368 households across Staffordshire & Stoke-on-Trent. Figure 3.14 illustrates the distribution of those existing households across Staffordshire with the largest share accommodated by Stoke-on-Trent, Stafford, and Newcastle-under-Lyme, and the least within Tamworth and Cannock Chase.

Figure 3.15 illustrates the total completions achieved for each local authority in Staffordshire between 2008/09 and 2017/18 according to completions data provided from the Ministry of Housing, Communities and Local Government. 23,110 homes have been delivered across Staffordshire & Stoke-on-Trent over the 10 year period. This equates to an average annual completion rate of approximately 2,310 dwellings. The highest level of completions achieved in Stafford, followed by Stoke-on-Trent.

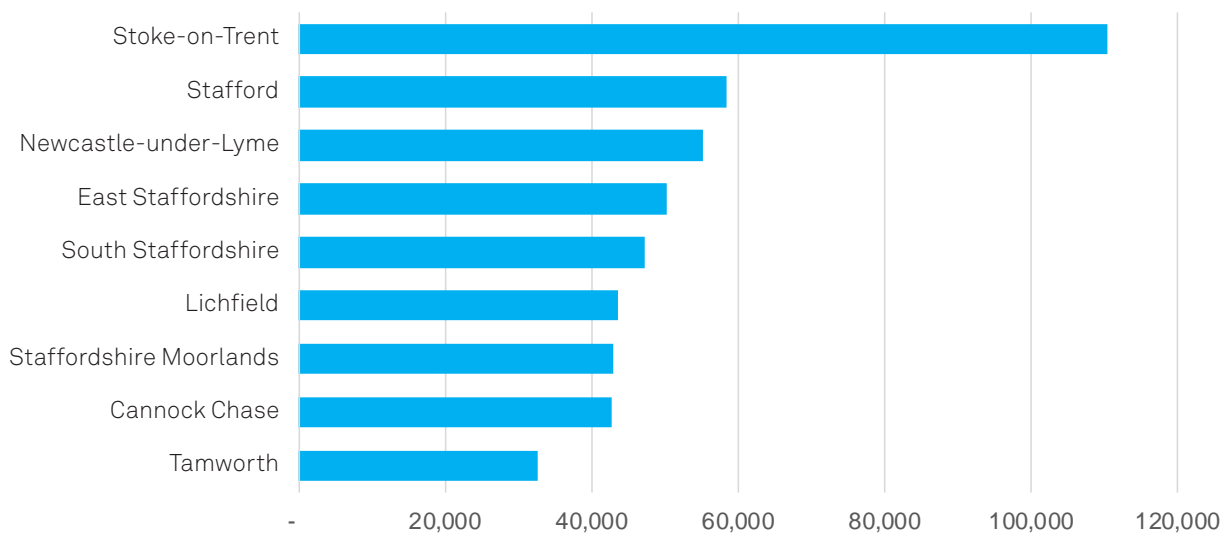


FIGURE 3.14 - EXISTING HOUSEHOLDS 2018
Source: 2014-based Household Projections, Department for Communities and Local Government

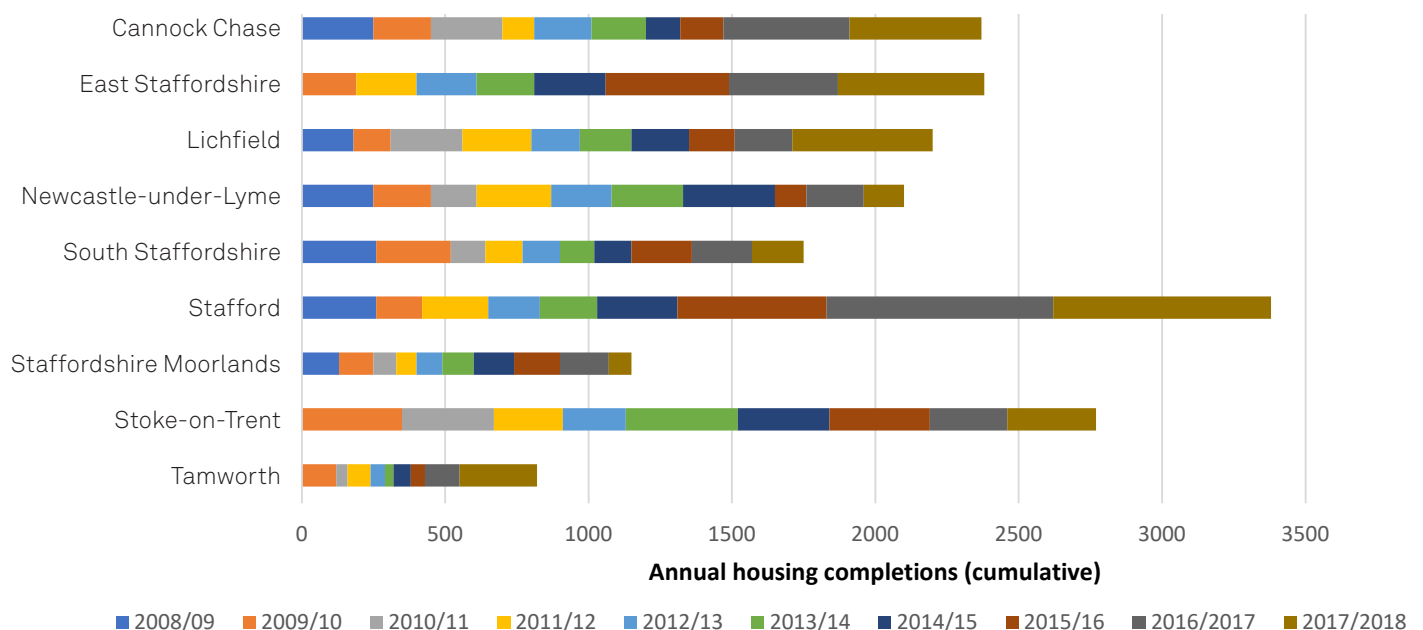


FIGURE 3.15 - HOUSING COMPLETIONS TO 2018
Source: Ministry of Housing, Communities and Local Government. Live tables on house building: new build dwellings. Table 253.

HOUSING TRAJECTORY TO 2038

STAFFORDSHIRE & STOKE-ON-TRENT HOUSING TRAJECTORY

Compilation of the various assessments of housing need across Staffordshire indicates an objectively assessed need for around 86,772 additional dwellings across Staffordshire & Stoke-on-Trent between 2018 and 2038 (specifically the end of the 2037/38 financial year).

The housing trajectory, in this context, refers to the scale and mix of housing types and tenures that is likely to be needed in the area over the period - taking into account existing housing and likely demand over the period.

Table 3.1 below and opposite illustrate the housing trajectory for each LPA from 2018 to 2037/38. Table 3.1 also sets out the sources from which Staffordshire & Stoke-on-Trent housing need has been compiled for this study and any assumptions required to do so.

A number of LPAs are working together (consistent with their statutory duty to cooperate) to establish the most effective approach towards delivering this scale of housing need across their respective housing market areas. This work may materially affect future housing need figures.

HOUSING DELIVERY

To deliver this scale of new housing would require a completion rate of approximately 4,339 dwellings per annum. This is higher than the average completions achieved between 2008/9 to 2017/18 which was an average of around 2,310 dwellings per annum.

	2018/19- 2022/23	2023/24- 2027/28	2028/29- 2032/33	2033/34- 2037/38	2018/19- 2037/38	AVERAGE PER ANNUM	SOURCE
Cannock Chase	1,348	1,827	1,420	1,420	6,015	301	Source: 2017-27 data - Strategic Housing land availability assessment, August 2018. 2028-37 data - Minimum Local Housing Need (Standard method) - updated with latest affordability data
East Staffordshire	3,642	3,787	2,586	2,190	12,205	610	"Source: 2018/19 to 30/31 data - Updated housing trajectory for the Local Plan period, from East Staffs Borough Council. 2031/32 - 37/38 data - Minimum Local Housing Need (Standard method) - updated with latest affordability data"
Lichfield	4,450	3,938	1,779	1,700	11,867	593	Source: 2018-28 - Lichfield District Local Plan. 2029-37 - Minimum Local Housing Need (Standard method) - updated with latest affordability data
Newcastle-Under-Lyme	2,930	2,930	2,930	2,930	11,720	586	Source: 2017-37 data Joint Local Plan Preferred Options, Consultation document, February 2018. Figure based on Housing requirement between 2013-33.
South Staffordshire	2,405	2,405	2,405	2,405	9,620	481	Source: Local Plan Issues and Options, October 2018. The data presented reflects the 9130 dwellings for the period 2018-2037 that is being tested via South Staffordshire's emerging Local Plan and includes the minimum of an additional 4,000 dwellings towards wider housing shortfalls from the HMA. It is likely that further infrastructure investment will be needed in South Staffordshire to develop the sites required to meet this level of growth, although these sites are yet to be identified.
Stafford	2,823	2,659	1,691	2,040	9,213	461	Source: 2018-30 data - The Plan for Stafford Borough 2011-2031. 2031-2037 data - Minimum Local Housing Need (Standard method) - updated with latest affordability data
Staffordshire Moorlands	2,521	1,919	581	1,600	6,621	331	Source: 2017-32 data - Staffordshire Moorlands Housing Implementation strategy. January 2019 (Anticipated completions). 2033-37 Local annualisation requirement.
Stoke-on-Trent	4,020	4,020	4,020	4,020	16,080	804	Source: 2017-37 - data Joint Local Plan Preferred Options, Consultation document, February 2018. Figure based on Housing requirement between 2013-33.
Tamworth	885	885	851	800	3,421	171	Source: 2017-37 data - The Tamworth Borough Council Local Plan, 2006-31. Appendix A. Post-2031 trajectory were suggested by Tamworth Borough Council. The actual delivery of houses in Tamworth post-2031 is likely to be lower than these figures due to a lack of available land, with the local housing need for Tamworth likely needing to be met across the wider housing market area.
STAFFORDSHIRE & STOKE-ON-TRENT	25,024	24,370	18,268	19,110	86,772	4,339	

TABLE 3.1 - HOUSING TRAJECTORY 2018/19 - 2037/38

Caveats: Caveats apply to each local authority which cannot all be presented on this page. Refer to Section 7 for details.

IDENTIFIED HOUSING SITES

Detailed site-specific data was requested from the local authorities to establish the currently identified housing sites across Staffordshire & Stoke-on-Trent. This includes sites that are under construction, with outline or full planning permissions, plan allocations and strategic sites.

This data has been used to map the distribution of forecast growth as illustrated in [Figure 3.16](#). This is based on the most up to date information at the time of production during late 2018 and 2019, and could be subject to change subject to review of planning policy documents. Some sites listed are potential development sites and not guaranteed to be included in adopted Local Plans.

The identified sites do not equal the total number of homes planned for each local authority as not all of the authorities' Local Plans are at a stage where sites have been identified or confirmed for inclusion in the Local Plan.

HOUSING GROWTH PATTERNS

[Table 3.1](#) on the previous page highlights the areas planning for the greatest level of housing growth over the next 20 years. Whilst it is acknowledged that not all of the local authorities are presenting an adopted Local Plan position with a full trajectory, a number of local authorities are seen to accommodate the greatest level of growth including Stoke-on-Trent, East Staffordshire, Newcastle-under-Lyme and Lichfield.

[Figure 3.16](#) illustrates the identified housing sites during production of the Strategic Infrastructure Plan which will make up a share of those planned new homes.

There are multiple large-scale proposed housing developments in Staffordshire & Stoke-on-Trent. In Stafford Borough, the Meecebrook development near Swynnerton will comprise of a minimum of 10,000 homes as well as 200ha of new employment land and is part of a wider UK Government initiative to develop 'Garden Communities' across the country.

Some of the planned and proposed housing developments across the local authorities include:

- Stafford Gateway, Stafford
- Branston, East Staffordshire
- Arkall Farm, Lichfield
- Tamworth Golf Course, Tamworth
- Rugeley Power Station, Cannock Chase and Lichfield
- University Growth Corridor, Newcastle-under-Lyme
- Town centre developments across Staffordshire Moorlands

While housing supply trajectories indicate anticipated housing delivery, actual delivery could differ significantly - depending on a number of factors, including changing economic conditions, development viability and infrastructure delivery.

GREATER BIRMINGHAM AND BLACK COUNTRY HOUSING MARKET AREA

The Greater Birmingham and Black Country Housing Market Area (HMA) comprises of 14 local authorities in the West Midlands. Four of Staffordshire's districts fall into the HMA: South Staffordshire, Cannock Chase, Lichfield, and Tamworth. The housing pressure from Birmingham and its surrounding area is undeniable, and it is vital that the Housing Market Area prepares thoroughly for the anticipated increase in housing demand. There is currently a shortfall in planned provision to meet housing requirements in the HMA which means the constituent local authorities (including those in Staffordshire) will need to consider their ability to address the shortfall within their respective local plans.

The Staffordshire & Stoke-on-Trent Strategic Infrastructure Plan has taken into account the pressures from the Birmingham HMA as far as possible, where local authorities have accommodated, or are planning to accommodate, demand from the Birmingham HMA within their Local Plan. Prior to the SIP, there have been number of reports analysing the future housing need across the Birmingham HMA. GL Hearn produced the Greater Birmingham HMA Strategic Growth Study (February 2018) which identifies options and broad locations for addressing the housing supply shortfall in the HMA. The study reviewed the existing identified supply of housing land to consider whether more dwellings could be provided on planned sites, and the potential additional supply on other sites. This was followed by considering the development potential and suitability of any large previously developed sites within the Green Belt that may lie in sustainable locations, and a full strategic review of the Green Belt. The report concluded that between 256,000 and 310,000 homes would be required to 2038 to meet the HMA's housing needs.

The GL Hearn study followed work undertaken by Peter Brett Associates who produced a Strategic Housing Needs Study Stage 2 Report (November 2014) and Strategic Housing Needs Study Stage 3 Report (August 2015). These reports assessed future housing needs across the Greater Birmingham and Solihull LEP and the Black Country LEP, and set out options on where those needs could be met.

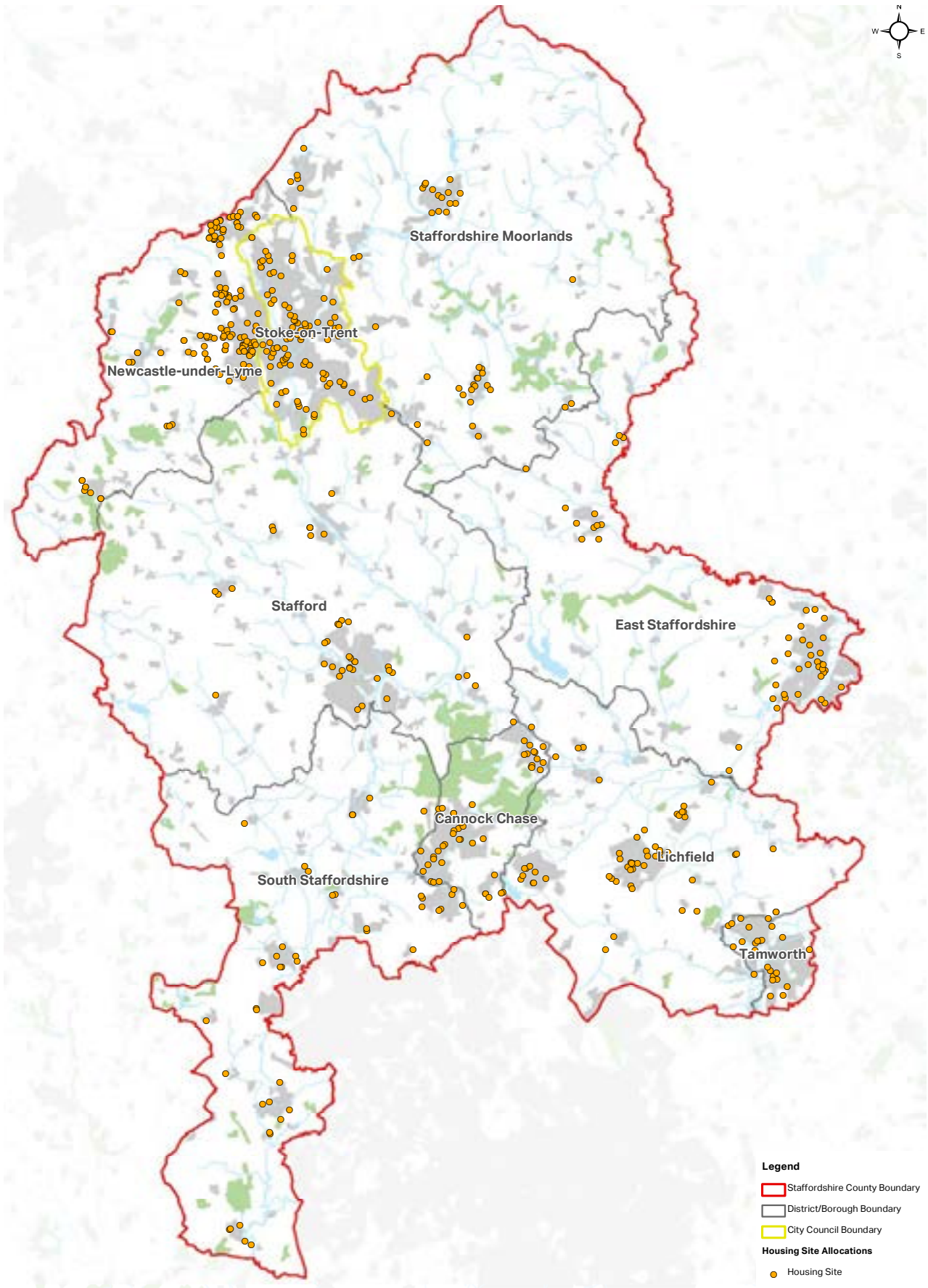


FIGURE 3.16 - IDENTIFIED HOUSING SITES IN STAFFORDSHIRE & STOKE-ON-TRENT TO 2038

Source: Local Authority data provided for Strategic Infrastructure Plan

* This is based on the most up to date information at the time of production and could be subject to change, subject to review of planning policy documents. Some sites listed are potential development sites and not guaranteed to be included in adopted Local Plans. It should also be noted that the sites vary greatly by size and therefore a greater quantity of sites does not necessarily equate to higher housing numbers.

3.3 ECONOMIC PORTRAIT

INVESTMENT IN INFRASTRUCTURE IS ESSENTIAL TO PROMOTE PROSPERITY AND SUPPORT BALANCED ECONOMIC GROWTH ACROSS STAFFORDSHIRE & STOKE-ON-TRENT. THIS SECTION SETS OUT SOME OF THE KEY ISSUES AROUND THE STAFFORDSHIRE ECONOMY, TO WHICH FUTURE INVESTMENT IN INFRASTRUCTURE MUST RESPOND.

ECONOMIC CONTEXT

Staffordshire & Stoke-on-Trent contributes significant value to the UK economy. In 2017 the GVA of the area¹ amounted to £22.25bn. Stoke-on-Trent generated £5.38bn of this GVA with Staffordshire county contributing a further £16.87bn, equivalent to 1.2% of the UK's GVA. In addition to its own strong economic contribution Staffordshire & Stoke-on-Trent also has significant labour market relationships with surrounding regions. The north of the region borders Cheshire and links closely to the Greater Manchester region. The east of the region has geographical links to the major economic hubs of Derby and Nottingham. To the south lies Birmingham and Wolverhampton and to the west lies Shrewsbury. The number of economic centres surrounding Staffordshire and Stoke-on-Trent creates a diverse and strong economic business cluster whereby interaction of businesses and flow of labour force moves beyond regional boundaries.

The M6 runs through the heart of Staffordshire linking the area to Warrington, Manchester, Liverpool and the North of England and to Birmingham, London and Southern England. Staffordshire and Stoke-on-Trent also benefits from strong rail connections, primarily provided by the West Coast Mainline. This provides frequent and fast links to London, Manchester, Liverpool and Scotland.

GVA per head and recent GVA growth lags behind the national average. Staffordshire & Stoke-on-Trent faces a skills deficit, with a below-average share of residents holding advanced qualifications, and in some areas a high rate of residents with no qualifications.

There are wide disparities between different areas of Staffordshire & Stoke-on-Trent, including in economic performance (e.g. GVA per head, strength of the local employment base) and in the labour market (e.g. qualification rates, employment rates and resident earnings).

POLICY CONTEXT

Staffordshire & Stoke-on-Trent lies entirely within the Stoke-on-Trent & Staffordshire LEP (SSLEP) area. In addition, some of Staffordshire's districts are also members of the Greater Birmingham & Solihull LEP (GBSLEP) area; Cannock Chase, East Staffordshire, Lichfield and Tamworth.

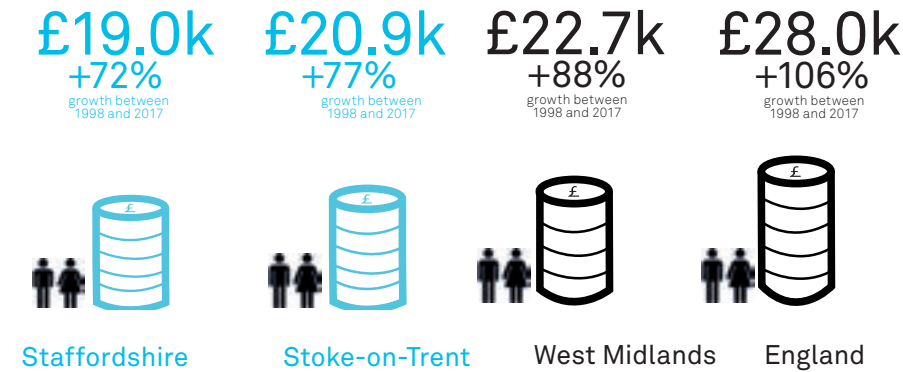
As set out in the SSLEP Strategic Economic Plan (April 2018), SSLEP's aim is to create a connected area, with a competitive economy, which works collaboratively with local partners to complement their activities. This involves developing Stoke-on-Trent into a competitive core city, whilst also enabling the growth of a thriving economy throughout Staffordshire. The LEP aims to grow the economy by 50% and generate 50,000 jobs over the next 10 years.

1 - Regional gross value added (income approach) at basic prices 2017 (ONS, 2018).



The Staffordshire & Stoke-on-Trent Economy

GVA per head in Staffordshire & Stoke-on-Trent is below the national and West Midlands averages



Source: Gross Value Added (Balanced)^{1,2} per head of population at current basic prices (ONS)

FIGURE 3.17 - GVA PER HEAD (BALANCED)

GVA per head

GVA per head for Stoke-on-Trent stands at £20,908 whereas the corresponding figure for Staffordshire is £19,039. Both areas fall considerably below the UK average of £27,555. Despite the region's strengths Staffordshire & Stoke-on-Trent evidently faces economic challenges to catch up to the national level of productivity. The 1997-2016 growth in GVA per head for both Stoke-on-Trent and Staffordshire is below the West Midlands and England averages meaning the gap between Staffordshire and Stoke-on-Trent and the national average has increased.

The top three local authorities within Staffordshire & Stoke-on-Trent with the highest GVA per head in 2016 were East Staffordshire, Lichfield and Stoke-on-Trent. Clear unevenness exists in GVA per head between local authorities. The gap between the highest (East Staffordshire) and lowest value (Staffordshire Moorlands) is £7,753, a significant difference.

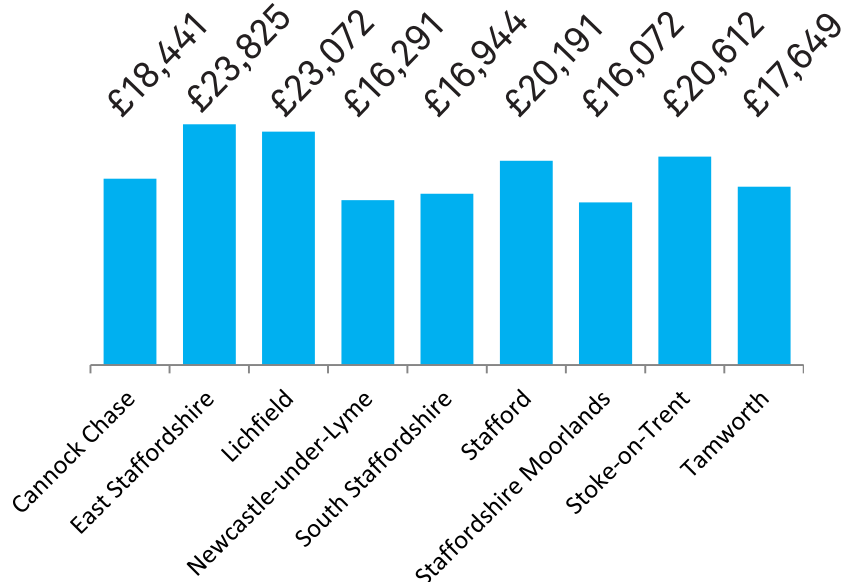
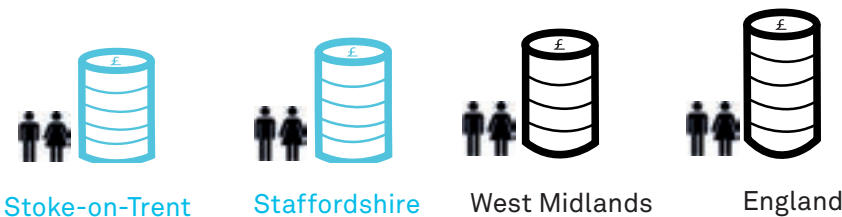


FIGURE 3.18 - GVA PER HEAD BY LOCAL AUTHORITY

Source: Regional gross value added (balanced) by Local Authority in the UK (2016)
GVA per head for districts has not been released for 2017 available

£25.90 £27.00 £29.50 £34.10



Source: Gross Value Added (Balanced)^{1,2} per head of population at current basic prices (ONS)

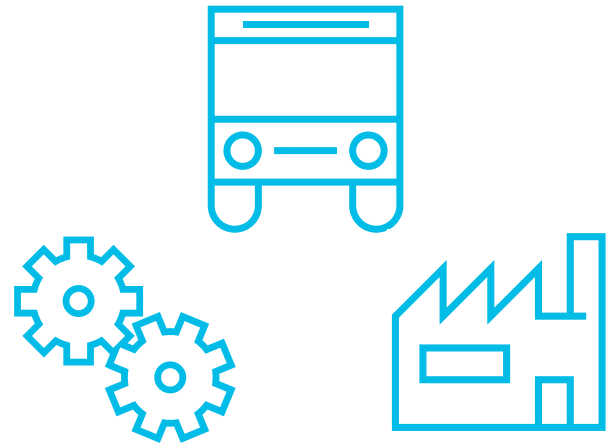
FIGURE 3.19 - GVA PER HOUR WORKED (NOMINAL)

Staffordshire has a higher GVA per hour worked figure than Stoke-on-Trent, with £27 per hour compared to £25.90. Staffordshire & Stoke-on-Trent have a combined GVA per hour worked of £26.70. These are lower than wider geographies of the West Midlands (£29.50) and England (£34.10).

GVA by sector

The three largest sectors by GVA in Staffordshire for 2017 were: Distribution, transport, accommodation & food; Public administration, education & health; and Manufacturing. Distribution, transport, accommodation & food contributed the most value with £3.8bn.

For Stoke-on-Trent the three largest sectors were: Public Administration, Distribution, transport; accommodation & food, and Manufacturing. Public administration adds the greatest value at £1.2bn. These sectors are based on the ONS GVA by SIC07 Industry data, organised by broad industrial groups.



In Staffordshire & Stoke-on-Trent, the leading sector for historical GVA growth (1998-2017) was Arts, entertainment and recreation, activities of households, other service activities (5.5% CAGR of GVA), far outperforming the average of all industries (2.9% CAGR). Professional, scientific and technical activities (5.2%) and Transport and Storage (5.2%) also performed strongly over the period. Manufacturing experienced the smallest increase in GVA over the period (0.5% CAGR), followed by Financial and insurance activities (1.6% CAGR) and Real estate activities (1.9% CAGR).

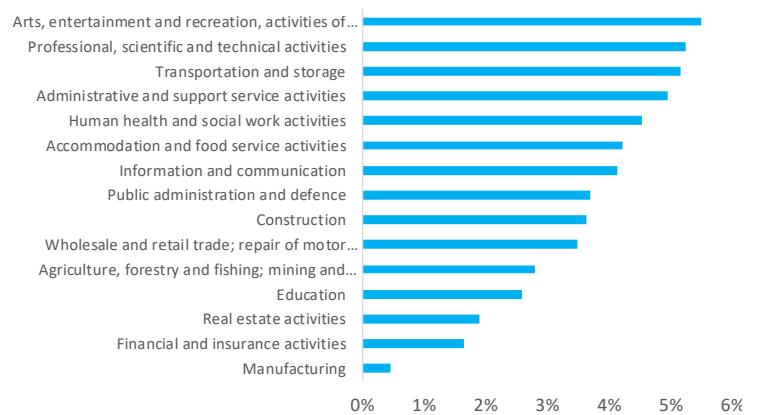


FIGURE 3.20 - COMPOUND ANNUAL GROWTH RATE (CAGR) OF GVA BY SECTOR IN STAFFORDSHIRE & STOKE-ON-TRENT (1998-2017)

Source: Regional gross value added (balanced) by industry NUTS 3 region, ONS

The Staffordshire & Stoke-on-Trent Labour Force

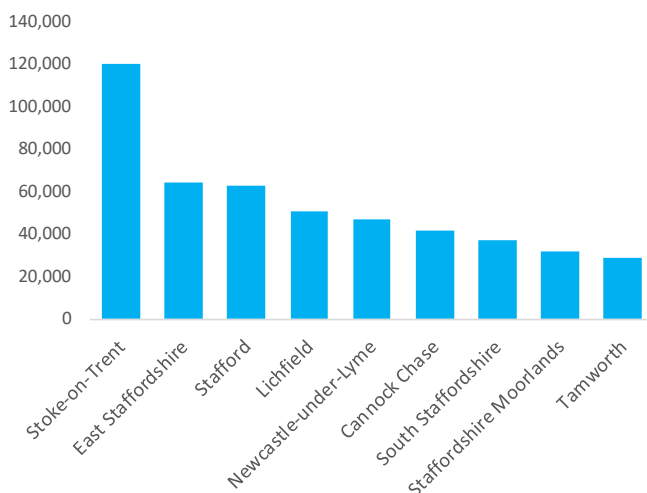
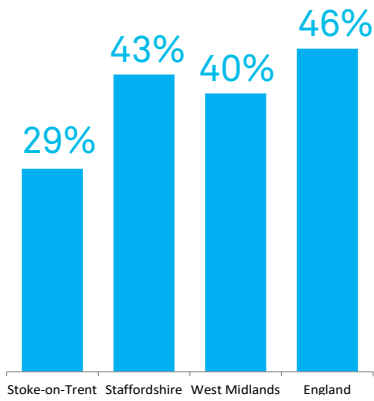


FIGURE 3.21 - EMPLOYMENT COUNT BY LOCAL AUTHORITY 2017

Source: ONS Business Register Employment Survey (2017)

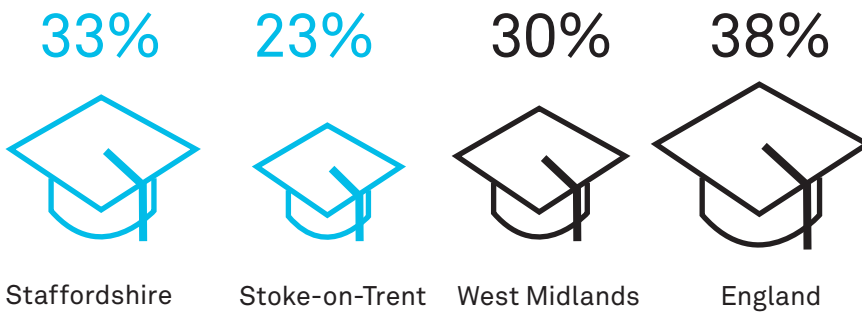
The top three local authorities in terms of employment in 2017 were Stoke-on-Trent, East Staffordshire and Stafford. A total of 365,000 people were in employment across Staffordshire. 120,000 people were in employment in Stoke-on-Trent. Between 2015 and 2017 Staffordshire's employment has increased from 350,500 to 355,000, a growth rate of 1.28%. Over the same period Stoke-on-Trent experienced 4.35% growth, moving from an employment base of 115,000 to 120,000.



The proportion of the workforce employed in highly skilled occupations is higher in Staffordshire (42.6%) than in Stoke-on-Trent (29.1%). Staffordshire sits above the West Midlands average (39.9%). The average for England (46.3%) sits above Staffordshire, Stoke-on-Trent and the West Midlands averages, highlighting the entire region falls below average.

FIGURE 3.22 - % WORKFORCE IN MANAGERIAL, PROFESSIONAL AND TECHNICAL OCCUPATIONS

Source: ONS Annual Population Survey (2018)



Staffordshire (32.7%) has a greater proportion of the population qualified to NVQ Level 4+ than Stoke-on-Trent (23.4%) although both fall below the England average of 38.3%. The West Midlands average sits between Staffordshire and Stoke-on-Trent at 29.6%.

FIGURE 3.23 - % WORKFORCE WITH NVQ LEVEL 4+

Source: ONS Annual Population Survey (2018)

People who work in Staffordshire earn on average £29,560 per annum. In Stoke-on-Trent this workplace-based figure sits higher at £31,115. However, this trend is reversed for resident-based wages. Staffordshire residents earn on average £33,672 whilst in Stoke-on-Trent residents average £28,568. This would suggest a pattern of migration of higher paid residents out of Staffordshire for employment. Whereas for Stoke-on-Trent it is likely an in-migration of higher paid workers occurs.

East Staffordshire have the highest workplace-based earnings with £31,877, though this is still less than the West Midlands average (£33,113) and England (£37,328). Newcastle-under-Lyme has the lowest level of workplace-based earnings at £26,686, followed by Tamworth and South Staffordshire. Lichfield has by far the largest resident-based earnings in Staffordshire & Stoke-on-Trent with £45,302, even greater than the West Midlands (£32,936) and England (£37,328). South Staffordshire also performs well with £36,273, followed by Stafford (£33,557) and East Staffordshire (£32,363).

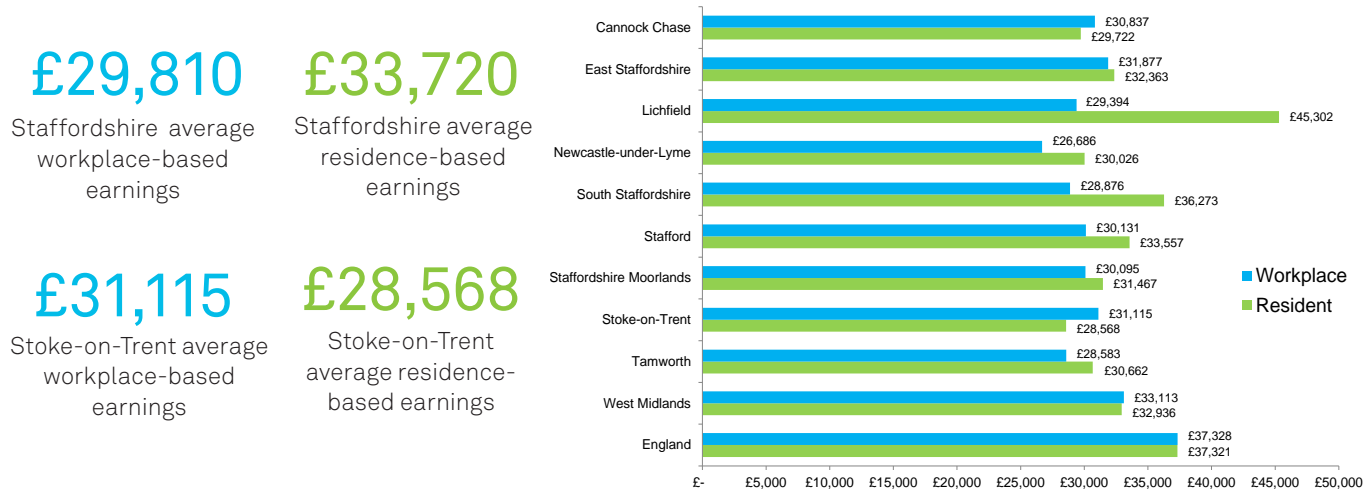


FIGURE 3.24 - STAFFORDSHIRE & STOKE-ON-TRENT MEAN FULL-TIME GROSS ANNUAL WAGE (2018)

Source: ONS Annual Survey of Hours and Earnings - workplace and resident analysis

Commuting to and from Staffordshire & Stoke-on-Trent

The majority of Staffordshire & Stoke-on-Trent residents work in the area (402,753). For those that do commute, Staffordshire & Stoke-on-Trent have more residents commuting out to work than they have flowing inwards. In total there is a net outflow of 44,617 workers from Staffordshire & Stoke-on-Trent. The most common areas to commute to are Birmingham, Wolverhampton, Cheshire East and Walsall. The largest inflows to commute to Staffordshire & Stoke-on-Trent are from South Derbyshire, Cheshire East, Walsall and Wolverhampton.

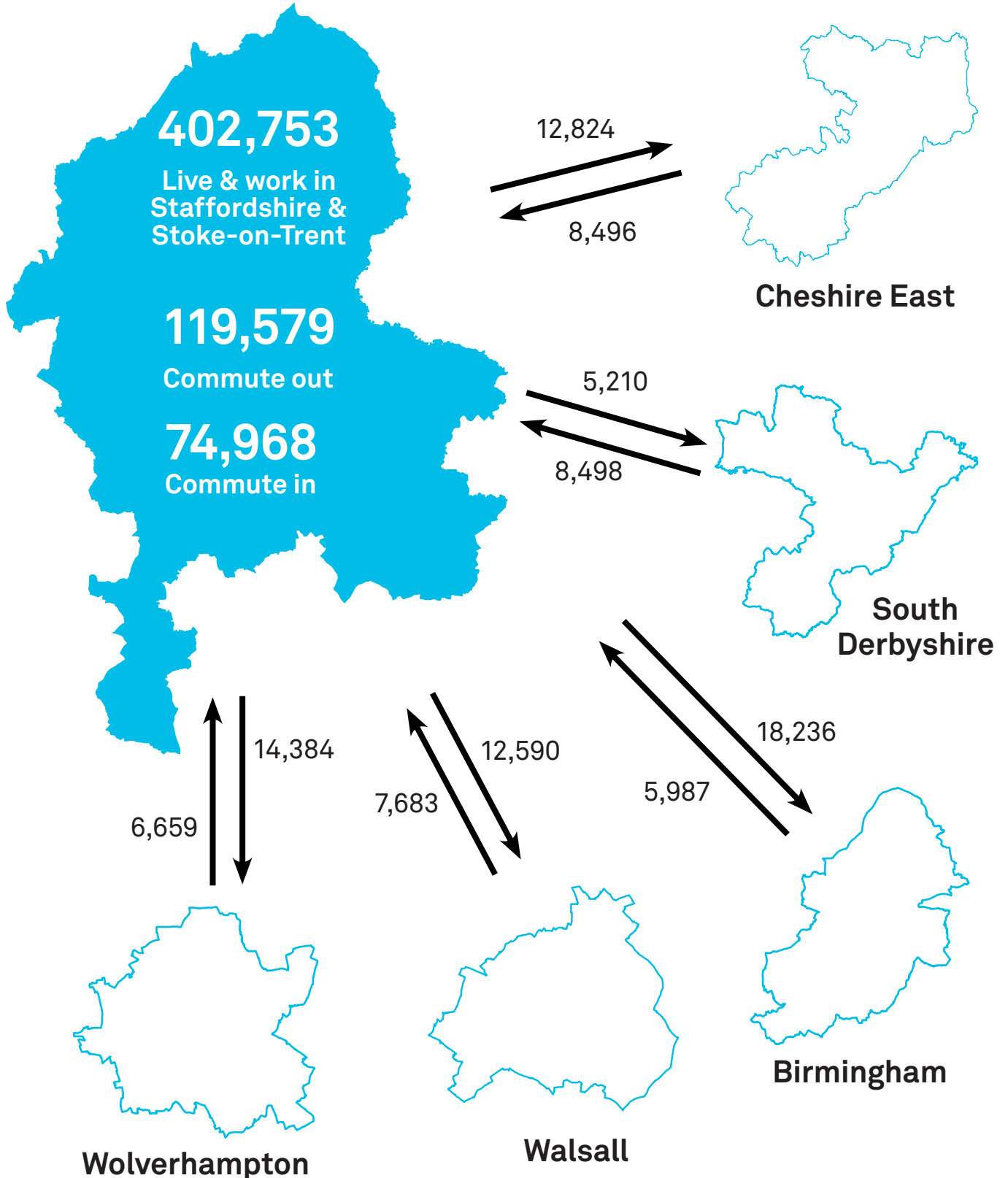


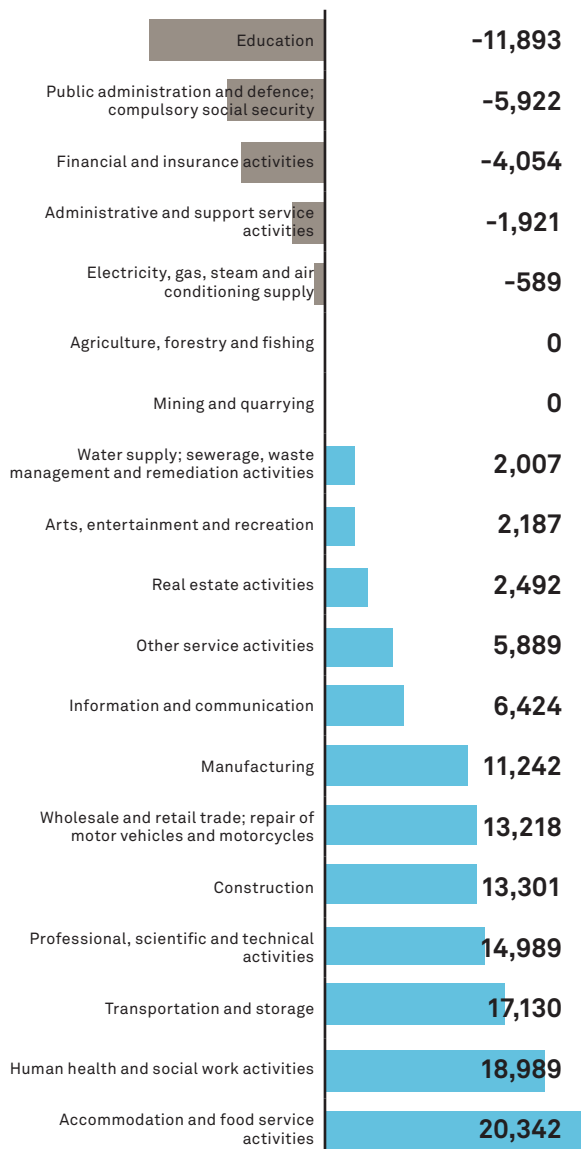
FIGURE 3.25 - STAFFORDSHIRE & STOKE-ON-TRENT COMMUTING STATISTICS (2011)

Source: ONS Census - Location of usual residence and place of work (ONS, 2011)

Forecast employment growth

Staffordshire County Council have produced employment forecasts to estimate the future number of jobs in Staffordshire & Stoke-on-Trent. It should be noted that these forecasts are based on recent growth trends and therefore do not take into account plans for growth. Policy decisions will affect future changes to the industrial structure of Staffordshire & Stoke-on-Trent such as the level of housebuilding outlined within this document needing to be supported by more services including schools, whilst some parts of the county are also likely to need to consider meeting the needs for employment land of surrounding areas. These issues will be considered through Local Plans and Housing and Economic Development Needs Assessments.

The strongest employment growth to 2038 is forecast in Accommodation & food services, while Education is projected to contract most.



Source: Staffordshire & Stoke-on-Trent Forecasts (based on amended 5 Year CAGR), Staffordshire County Council

FIGURE 3.26 - FORECAST CHANGE IN EMPLOYMENT IN SELECTED SECTORS, 2018-38

It is predicted that the Staffordshire & Stoke-on-Trent economy could add 103,830 jobs to 2038, representing growth of 21%

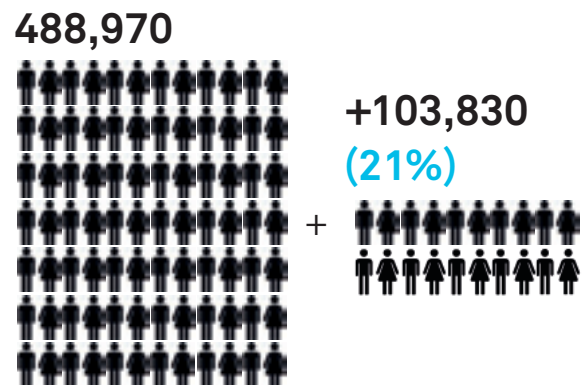


FIGURE 3.27 - EMPLOYMENT GROWTH FORECAST 2018-38
Source: Staffordshire & Stoke-on-Trent Forecasts (based on amended 5 Year CAGR), Staffordshire County Council

What does this mean?

Infrastructure is essential to helping close the productivity gap within Staffordshire & Stoke-on-Trent and supporting future growth.

With jobs concentrated in major centres transport infrastructure is essential to support access to employment.

Transport infrastructure must also meet the needs of the important logistics and manufacturing sectors in key areas of Staffordshire - while managing the sometimes competing demands of passenger and freight transport.

Education and other social infrastructure can help address the skills disparity within Staffordshire.



IDENTIFIED GROWTH SITES

Figure 3.28 highlights some of the key sites for employment growth which will support the expansion of the Staffordshire & Stoke-on-Trent economy over the next 20 years.

This data has been collated from local authorities. It identifies sites from planning permissions, employment allocations in adopted and draft Local Plans and from an understanding of existing sites with expansion capacity. This provides a helpful, but not entirely complete picture of Staffordshire & Stoke-on-Trent's future employment capacity, as smaller sites are excluded - even though they may make an important contribution to employment.

This includes a number of sites identified by partners in Staffordshire as strategic priorities to support economic development, and which could be supported by growth funding streams. These include:

Cannock Chase

- Rugeley Power Station site
- Kingswood Lakeside, Blakeney Way

East Staffordshire

- Branston Locks
- Beamhill

Lichfield

- Fradley Park
- Rugeley Power Station site

Newcastle-under-Lyme

- Chatterley Valley
- Keele Science & Innovation Park

South Staffordshire

- i54 South Staffordshire
- ROF Featherstone

Stafford

- Meaford
- Redhill

Staffordshire Moorlands

- Blythe Vale
- Tunstall Road, Biddulph

Stoke-on-Trent

- Chatterley Whitfield
- Etruria Valley Phase 3B,
- East and West Precincts and former Hanley Bus Depot
- Smithfield

Tamworth

- Bitterscote South
- Relay Park

In addition to existing proposals, there are a number of proposed employment site developments in the area including the West Midlands Interchange strategic rail freight interchange and development of land adjacent to Stafford rail station known as Stafford Gateway. The West Midlands Strategic Employment Sites Study will also consider sites that could address a possible shortfall in employment land for a larger than local need which may identify further sites within the area to be considered within future iterations of Local Plans.

Forthcoming developments

West Midlands Interchange is a Strategic Rail Freight Interchange with warehousing and wider development planned for South Staffordshire. The interchange, west of Junction 12 of the M6, provides a connection to the West Coast Main Line, a key rail freight route, to serve the West Midlands, the Black Country, Staffordshire, Birmingham, the northern M6 corridor and parts of Warwickshire. The Interchange will provide up to 743,200 square metres of rail-linked warehousing for the region's logistics industry. The scheme will create up to 8,550 direct jobs. As at the time of the Strategic Infrastructure Plan, permission for the scheme has been granted but construction has yet to commence.

Staffordshire and Stoke-on-Trent continues to be an attractive location for the logistics industry, and continuing to manage the impacts of freight within the county will be vital, such as through routing and improvements to, and provision of, new parking facilities for heavy goods vehicles where appropriate.

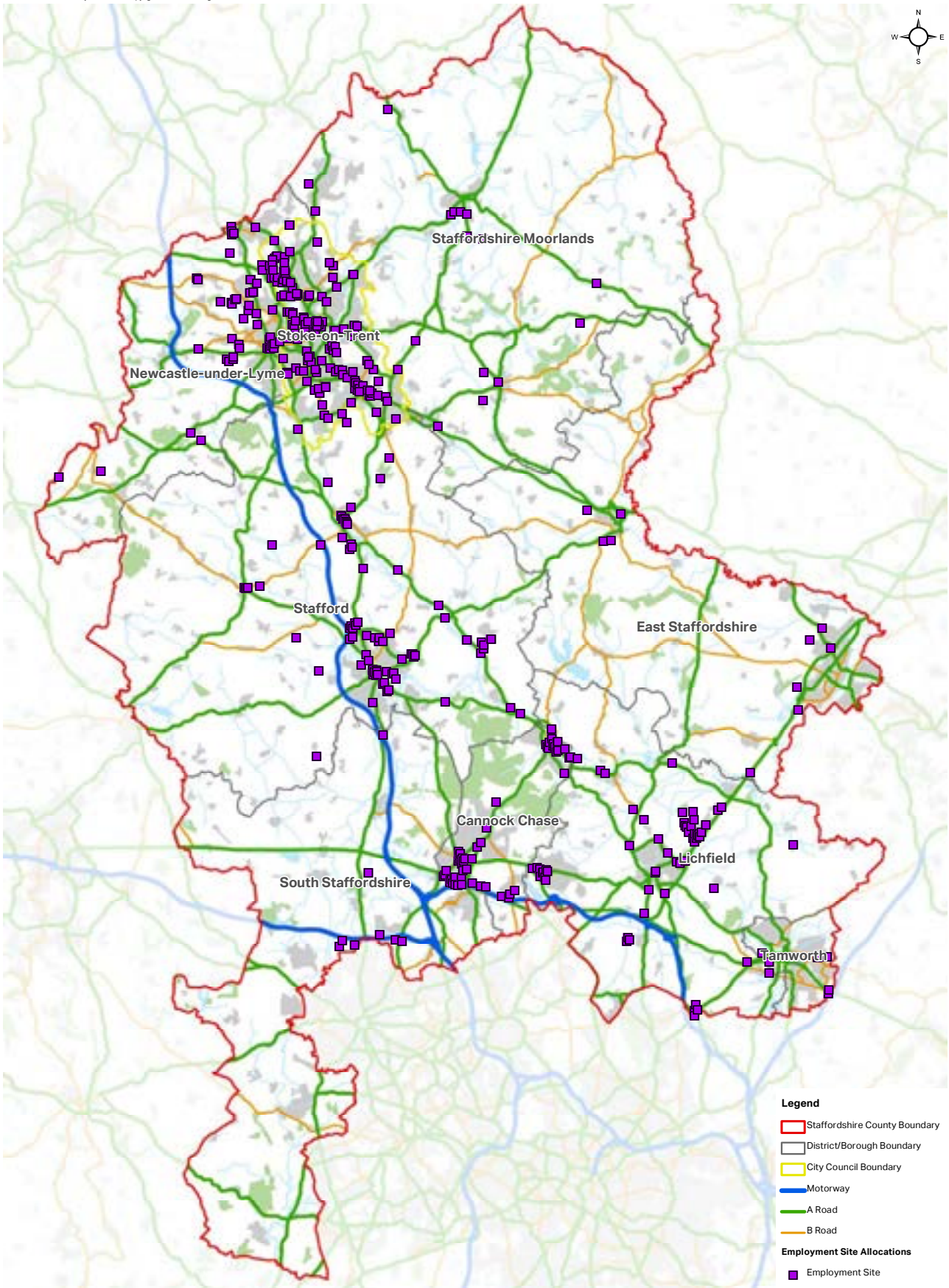


FIGURE 3.28 - IDENTIFIED EMPLOYMENT SITES IN STAFFORDSHIRE & STOKE-ON-TRENT

* This is based on the most up to date information at the time of production and could be subject to change, subject to review of planning policy documents

Source: Local Authority data provided

04

***ASSESSMENT OF CURRENT
INFRASTRUCTURE
PROVISION AGAINST
GROWTH FORECASTS TO
2038***

INFRASTRUCTURE NEEDS AND REQUIREMENTS

The document builds a picture of the infrastructure needed to support the expected growth in Staffordshire & Stoke-on-Trent to 2038, outlined in Section 3, and the anticipated gap in funding to provide it.

Future infrastructure need is assessed by applying industry standard benchmarks to either the projected increase in population or necessary additional dwellings to 2037/38.

- The projected increase in population to 2037/38 (+62,223) is sourced from ONS population projections outlined in Section 3.1.
- The number of necessary additional dwellings to 2037/38 (+86,772) is derived from existing and emerging Local Plans in Staffordshire & Stoke-on-Trent, or other recent housing trajectories as outlined in Section 3.2.

The total cost of providing the necessary infrastructure is estimated from details of planned and theoretical infrastructure projects required to meet each type of infrastructure need, based on existing infrastructure.

- A project schedule comprising the projects required to meet the infrastructure need has been collated from detail of planned projects and theoretical projects (where data about specific planned projects is unavailable).
- Costings for theoretical projects is generated by applying industry cost benchmarks for each type of infrastructure to each project.

- Where no data is available from which to estimate project costs, the cost will be assumed as £0. Accordingly, the costs of infrastructure presented in this document are minimum figures.

- All costs presented are based on 2018 prices and have not been indexed forward to the assumed date of requirement or delivery.

- The sources for these costings and caveats applicable to those costed by AECOM are set out in Section 7.3.

The funding gap is estimated by reducing the total cost in line with anticipated public and private sector funding and developer contributions. These contributions are determined largely by assumptions of future funding, set out in detail in Section 7.4.

The high level estimates of cost and available funding will be assessed theoretically and will be highly sensitive to the accuracy of the supporting assumptions.

Notably, this Section does not include detailed analysis of the likely impact of anticipated growth in adjoining areas (e.g. Cheshire East and Birmingham) to Staffordshire & Stoke-on-Trent. However, as these growth areas are likely impact on service demand in Staffordshire, especially along border areas, these are explored at a high level in Section 2.

<p>4.1 TRANSPORT</p> <ul style="list-style-type: none"> ■ Strategic road network ■ Local road network ■ Rail ■ Bus ■ Walking and cycling 	<p>4.2 EDUCATION</p> <ul style="list-style-type: none"> ■ Early years and childcare ■ Primary education ■ Secondary education ■ Further and higher education 	<p>4.3 HEALTH + SOCIAL CARE</p> <ul style="list-style-type: none"> ■ Primary healthcare ■ Hospitals and mental health ■ Adult social care
<p>4.4 EMERGENCY SERVICES</p> <ul style="list-style-type: none"> ■ Police service ■ Fire service ■ Ambulance service 	<p>4.5 COMMUNITY</p> <ul style="list-style-type: none"> ■ Libraries ■ Community and youth services ■ Indoor sports ■ Outdoor sports and recreation 	<p>4.6 GREEN INFRASTRUCTURE</p> <ul style="list-style-type: none"> ■ Natural capital and landscape ■ Ecological ■ Open space
<p>4.7 UTILITIES & WASTE</p> <ul style="list-style-type: none"> ■ Energy ■ Broadband ■ Water + waste water ■ Waste 	<p>4.8 FLOODING & DRAINAGE</p> <ul style="list-style-type: none"> ■ Flood protection ■ Sustainable drainage 	



4.1 TRANSPORT

ROADS



Staffordshire & Stoke-on-Trent

104

Km of Motorways
(65mi)

Staffordshire & Stoke-on-Trent

872

Km of A Road
Highways (476mi)

CURRENT SITUATION

Staffordshire has excellent national road connections providing for local and strategic north-south and east-west movements. Strategic highway routes, which are managed and maintained by Highways England, include the M6, M54, A50, A5, A38, A449 and A500, and facilitate strategic and local inter-urban connections for commuting, business travel, freight, and leisure journeys whilst providing strategic links to key urban centres. These routes are supplemented by the Major Road Network (MRN) which covers the busiest and most economically important 'A' roads in the county which are the responsibility of Staffordshire County Council and Stoke-on-Trent City Council.

The M6 provides the strategic north-south route for traffic travelling between the South East and the North West of England. The route is vital for the international gateways including Liverpool Docks, Manchester Airport and Birmingham Airport. The M6 is a key route for freight with HGVs representing at least 15 per cent of traffic in 2017 (DfT, AADF).

The M6 Toll also provides an important alternative route for traffic travelling southeast-northwest across the south of Staffordshire avoiding the congested Birmingham Box (M6, M5 and M42).

The A50 provides the strategic east-west route for traffic in the north of the county routing from Crewe to M1 J24A for Nottingham in the east. This route acts as a bypass for Uttoxeter and Derby. Opportunities for smarter running along the A50/A500 and A38 corridors are currently being considered as part of the work of Midlands Connect.

The A5 and A38 provide important connections in the south of the county but are subject to safety, capacity and air quality issues. Staffordshire County Council are supporting Highways England in the management of traffic levels on both corridors and working with developers to deliver capacity improvements in association with new development sites around Burton-on-Trent and the Lichfield Strategic Development Allocations.

In terms of the local highway network, the priorities relate to the management of peak hour traffic demand on the major routes which serve the main urban centres of Stoke-on-Trent, Burton-on-Trent, Stafford, Tamworth, Lichfield, Newcastle and Cannock.

Staffordshire County Council and Stoke-on-Trent City Council are partners with Midlands Connect, a pillar of the Midlands Engine, who develop and recommend strategic

transport projects which will deliver the greatest economic and social benefits for the Midlands Region. Midlands Connect is the Sub-National Transport Body for the Midlands and are currently conducting studies of the A50 / A500, A5, A38, A42, M42, and Midlands Motorway Hub looking at improvements to accelerate growth and protect network resilience.

By 2040, Highways England aims to have transformed the busiest sections of the Strategic Road Network (SRN) to deliver a freer-flowing network which is safe, serviceable and supports economic growth. Over 100 major schemes worth £11.3 billion have been completed or are currently under construction as part of the first road investment period (RIS1: 2015/16 to 2020/1). This includes the £87.5m M6 Junction 10a to 13 Smart Motorway scheme in Staffordshire which was successfully delivered in 2016 whilst the M6 Junction 13 to 15 Smart Motorway scheme is currently under construction. Major schemes for the second road investment period (RIS2: 2020-1 to 2024-5) are currently being prioritised and Highways England expects to publish its RIS2 in late 2019

EXISTING INFRASTRUCTURE CAPACITY AND ISSUES

Staffordshire is home to some of the UK's biggest international manufacturers who are reliant on the SRN and MRN. Current capacity issues affect a number of key routes including the M54 junctions around Wolverhampton, the M6 around Stafford and the A50/A500 around Stoke-on-Trent and Newcastle-under-Lyme affecting journey time reliability. These are also the areas which are set to attract future development aspirations including the i54 South Staffordshire site.

SRN traffic levels in England and Wales are forecast to grow by between 32% and 66% by 2050. The key drivers for the growth in traffic levels are population growth, longer car journeys as a result of decreased vehicle running costs and increasing consumer demands for goods which are transported in light goods vehicles.

A number of key existing and future issues have been identified within Staffordshire & Stoke-on-Trent that impact the highway network and may restrict future growth opportunities:

- Significant congestion issues exist along the A50 & A500 corridors. These routes, along with the A34, provide diversionary routes during incidents on the M6 which further exacerbates queuing, delays and poor journey time reliability, particularly at peak times. If they are not addressed, these capacity issues have the potential to restrict future growth opportunities, particularly within the northern parts of the county.
- Closely spaced junctions and non-standard merges coupled with high volumes of traffic affects safety on the A500. The speed limit has recently been restricted to 50mph as part of the RIS1 Stoke Growth Deal improvements. It is also part of the Safer Routes Partnership which includes a safety camera scheme.
- The A50/ A500 alignment through Stoke-on-Trent limits scope for capacity upgrades. The A38 and A5 corridors

are subject to high traffic volumes with congestion and carbon emissions. These corridors will accommodate strategic greenfield housing and employment sites so maintaining their operation and safety is a concern.

- Congestion and safety issues exist in the main urban centres where several major routes converge. Development pressures including additional car parks serving developments around the town centres are exacerbating the situation. There are congestion and reliability issues on the M6 between and at J15 and J16 which serve North Staffordshire. These could potentially be captured under RIS2 through the implementation of smart running on the M6 and improvements to J15. There are also likely to be increased levels of congestion on other key routes, such as the A5 transport corridor which will accommodate growth both within and outside of the county. Clearly congestion issues throughout the county have the potential to have a detrimental impact on air quality and further consideration will be needed as to how this may be mitigated.
- During the construction of HS2, construction traffic may impact on the operation of the road network in Staffordshire, although Staffordshire County Council is working with HS2 Ltd to manage this and minimise the impact.

- Significant congestion issues exist along a number of major and principal local routes through Stoke-on-Trent, namely the A34, A50, A52 & A53, with some localised congestion in other urban centres in Staffordshire.
- According to DEFRA, there are 15 designated Air Quality Management Areas (AQMAs) in Staffordshire and one encompassing the whole city of Stoke-on-Trent. Air quality exceedances along the A53 have made it the subject of Ministerial Direction. The Local Authorities are charged with introducing interventions to address these exceedances including the possibility of introducing a charging Clean Air Zone. Stoke-on-Trent City Council are prioritising formulation of a new air quality action plan (AQAP) to address city wide and localised exceedances and working with Staffordshire County Council and partners to raise awareness and improve air quality in the most polluted areas.

FUTURE REQUIREMENT TO MEET GROWTH

With significant new residential and commercial development planned within Staffordshire and Stoke-on-Trent, this will require further transport infrastructure and service improvements to maintain or enhance existing service levels, including to allow and encourage people to travel more sustainably.

Continued investment in the SRN by Highways England will benefit Staffordshire and Stoke-on-Trent with the continuation of the Smart Motorway programme to increase capacity on the M6. Highways England's aspiration is for a Smart Motorway spine linking London and Manchester via Birmingham. The current gaps include M6 J15-J16 (North Staffordshire) and M6 J19-J21 (north of Staffordshire).

The need for a link between the M54 and the M6 was identified in the 2014 Road Investment Strategy (RIS) to relieve congestion on the A460, A449 and A5. The preferred option was announced in 2018 which includes a dual carriageway link between M54 J1 and M6 J11 and associated improvements.

The Midlands Connect studies for the A50 / A500 and A5 have already begun to consider how congestion issues can be addressed and growth supported along these key corridors. In the longer term, improvements are also to be considered for the A38 corridor. The case for investment and opportunities to deliver transport interventions to accelerate growth in the region are being explored. This will lead to preferred investment priorities along these routes which will likely need to be delivered to fully realise the growth potential of Staffordshire & Stoke-on-Trent.

COSTS AND FUNDING

Based upon theoretical benchmark modelling the following costs and funding have been identified:

Cost = £1,294,090,000

Estimated Funding Gap = £76,900,000

Figure 4.1

Strategic and Major Road Networks



RAIL



CURRENT SITUATION

Staffordshire & Stoke-on-Trent are uniquely placed at the heart of the national rail network with access to large economic centres in the North West, Midlands and South East which are connected by the West Coast Mainline. (WCML)

Rail passenger numbers have doubled, and the volume of rail freight has increased by 70% across the UK rail network in the last two decades and further growth is forecast. Consequently, there is demand for greater capacity on all rail lines across Staffordshire & Stoke-on-Trent, especially on commuter services. In 2017/8, there were 11.7 million passenger journeys starting or finishing at the 22 railway stations in Staffordshire & Stoke-on-Trent. The two busiest railway stations are Stoke-on-Trent and Stafford. Stoke-on-Trent station experienced passenger numbers increase by 0.9 per cent to 3.1 million during 2017/8, whilst passenger numbers at Stafford station increased by 0.5 per cent to 2.3 million.

The government is supporting a significant rail modernisation programme which includes the construction of HS2. Network Rail has invested over £38bn in the five years to 2019 (Control Period 5) on new rolling stock and modernisation including remodelling and a new flyover north of Stafford at Norton Bridge and the electrification and line speed increase of the Chase Line. Priorities within Control Period 6 (2019 – 2024) that unlock growth are currently being progressed.

EXISTING INFRASTRUCTURE CAPACITY AND ISSUES

Rail connectivity in Staffordshire is currently delivered through a comprehensive rail network and a number of different franchises:

- The Cross City line provides frequent commuter services from Lichfield and Shenstone into Birmingham, also offering direct services to Birmingham University, Bromsgrove and Redditch
- The West Coast Main Line is 700 miles in length from London Euston to Glasgow via Birmingham providing fast services from a number of Staffordshire stations to London. It is one of the busiest freight routes in Europe and part of the Trans-European Transport Network (TEN-T) route, carrying 40% of all UK rail freight traffic. There are at least 14 train operator companies using this line.
- Cross Country operate services between Birmingham, Derby, Nottingham, Yorkshire, the North East and Scotland calling at Tamworth and Burton-upon-Trent. Additionally, Cross Country operate services from the South Coast, Reading, and Birmingham to Manchester calling at Stafford and Stoke-on-Trent.

- The Chase Line via Cannock to Rugeley was fully electrified in December 2018 and now provides direct services to Birmingham International and Coventry.
- The Crewe to Derby Line which runs via Stoke-on-Trent and Uttoxeter currently suffers from overcrowding. A new franchise has recently been announced which will address the current capacity issues and provide services to new destinations.
- The Shrewsbury line provides services via Codsall and Bilbrook to Birmingham, Wolverhampton and Shrewsbury with connections to northern-west Wales.

Stations in the south of the county provide rail links to Birmingham city centre within a 20-40 minute journey time whilst in the north of the county are within a 40 minute journey time of Manchester Piccadilly allowing for relatively short commuter journeys. Network Rail's Market Study for Regional Urban Centres (October 2013) suggests growth of between 24% and 114% for travel into Birmingham and Manchester by 2043 indicating the ongoing importance of these routes.

Much of the rail network is either already at or approaching full capacity during peak times as a result of high commuter demand and due to Staffordshire's close proximity to a number of major cities for employment, leisure and retail trips. The primary challenges facing Staffordshire's rail network are outlined within the Staffordshire Rail Strategy and include:

- Cost, frequency and reliability issues throughout the county.
- Connectivity issues between rail stations and their surrounding areas including poor accessibility via sustainable transport options.
- The single line section of track to the north of Stoke-on-Trent between Alsager and Crewe limits the frequency of services between Crewe and Stoke on Trent and presents a significant challenge in the context of HS2. Capacity issues also limit service improvements to/from the North.
- Poor accessibility to Stoke-on-Trent station which is separated from the city centre by the rail line and ring road. The station also has an issue with regards to platform capacity. There is an aspiration to deliver an interchange hub by developing the land to the rear of station and to facilitate the reuse of vacant station buildings and the upper floors of the Grade II* Listed Station Building.
- The frequency of services between Crewe and Derby and lack of direct connections on some lines and to the East Midlands.
- A lack of capacity and poor quality parking facilities at a number of train stations.
- Access to Manchester Airport is poor with no direct services and access to Birmingham Airport varies across Staffordshire.

- All stations in Staffordshire are currently classified by Network Rail as category C or below which is widely recognised as falling short of average satisfaction levels. A lack of investment by Network Rail means, many stations have become increasingly dependent upon the National Stations Improvement Programme (NSIP) and Access for All Funding to deliver improvements.

FUTURE REQUIREMENT TO MEET GROWTH

There are six Train Operating Companies (TOCs) running services in Staffordshire and Stoke-on-Trent currently and these will continue to be refranchised up to 2038 depending on future policy changes including the Williams Review. Three recent franchises that have been announced include the East Midlands (Crewe – Derby Line), the West Midlands and Northern (Stoke-on-Trent – Manchester) franchises.

The County Council, whilst having limited resources to deliver rail improvements, brings together this fragmented industry acting as the voice of Staffordshire, lobbying and influencing wherever possible and appropriate. The County Council is also committed to maximising any funding opportunities that become available to invest in rail improvements for Staffordshire. To this end, Staffordshire County Council and Stoke-on-Trent City Council are members of both Transport for the North and the West

Midlands Rail Executive so they can ensure that future franchises and services support the growth agenda.

Network Rail’s West Midlands and Chilterns Route Study identified 3,300 extra seats on key commuter routes and 2,900 extra seats on long distance services by 2024. Longer trains have already been introduced on the Crewe to London Euston service and extra capacity is being delivered through new rolling stock as part of the new franchises. There may be a requirement in the future to extend the platforms at a number of stations within Staffordshire and Stoke-on-Trent to enable longer trains to call at these locations. The current satisfaction levels and likely continued increases in patronage also clearly indicate a need to upgrade a number of stations throughout the county. This includes Cannock railway station which will have an important role in mitigating the impact of increased visitor numbers in Cannock Chase as a result of the development of the Designer Outlet at Mill Green, scheduled to open in early 2021.

High Speed Two (HS2) services will pass through Staffordshire when Phase 1 is operational. HS2 services will stop at Stafford Station and will improve journey times and connectivity to London and Birmingham. Phase 2b will provide further improvements in journey times and capacity from Stafford to London, Birmingham and the North West, while releasing capacity on West Coast Main Line services for other Staffordshire & Stoke-on-Trent stations.

Figure 4.2

Staffordshire & Stoke-on-Trent Rail Network



Source: Staffordshire County Council

The scale of growth within the county and surrounding areas, alongside the opportunities presented by the capacity released on the network through the construction of HS2, means there are opportunities for the development of new rail stations in the future, thereby ensuring residents are able to travel using sustainable means and supporting climate change targets. These include the proposed stations at Brinsford and Cold Meece as part of the Meecebrook Garden Settlement proposal.

COSTS AND FUNDING

Based upon theoretical benchmark modelling the following costs and funding have been identified:

Cost = £171,050,000

Estimated Funding Gap = £51,570,000



PUBLIC TRANSPORT



CURRENT SITUATION

Bus services connect the main towns in Staffordshire & Stoke-on-Trent and provide cross-boundary links with neighbouring authorities and towns. Whilst bus services have declined in recent years, they continue to provide vital connections between people, services and places of work and enable people to make more sustainable travel choices.

Staffordshire & Stoke-on-Trent's bus network is operated by several private operators including Arriva Midlands, the main operator in Staffordshire, First Potteries, operating 70% of services in Stoke-on-Trent, D & G, and National Express West Midlands who are significantly increasing their presence in the county. Diamond Bus, Stagecoach and Select Buses also operate services on selected routes.

Bus passenger numbers across Staffordshire & Stoke-on-Trent have substantially declined over the last decade, from 37.7m passenger journeys in 2009/10 to 27.1m passenger journeys in 2017/8 (DfT). A decline in passenger revenue combined with council funding cuts has resulted in cuts to services with a low demand. Numerous changes to the bus service network were implemented in April 2019 and reductions in the subsidised network is being balanced out by new commercial services on a number of key corridors, including Walsall to Cannock and Sutton Coldfield to Lichfield. A new integrated bus ticket has also recently been launched called 'the Knot', which provides integrated travel across the main operators for one day, thereby providing for joined up travel across the county. National Express West Midlands have also altered several of their services for efficiency and to coincide with shift-change patterns at i54. Staffordshire County Council still fund free travel for older or disabled residents holding an English National Concessionary Travel Scheme (ENCTS) card, although travel is restricted to 9.30am to 11.00pm.

Key public transport issues include congestion and unreliable journey times, limited frequency of services and falling bus patronage levels affecting commercial viability. In order to reduce per capita road transport emissions, Staffordshire County Council wish to improve walking, cycling and bus facilities, and are promoting their use to encourage a modal shift away from car use.

Both Stoke-on-Trent City Council and Staffordshire County Council are working closely with Midlands Connect and Transport for West Midlands (TfWM) to identify opportunities such as multi-operator ticketing. There are already multi-operator ticketing systems implemented across North Staffordshire and the rest of county.

EXISTING INFRASTRUCTURE CAPACITY AND ISSUES

Bus policy and infrastructure investment is considered in the District Integrated Transport Strategies. The main issues currently facing the Councils, operators and passengers include:

- A lack of real time information at bus stops and interchanges, though the authorities are working with operators to seek to address this.
- Declining patronage levels. Since 2009/10, patronage in Staffordshire and Stoke-on-Trent has declined by 25% and 33% respectively.

- Unreliable journey times are a county wide issue resulting from congestion and a lack of bus priority infrastructure.
- Ongoing cuts to low demand services due to funding cuts and low passenger revenue.
- A lack of audio or visual passenger information on buses.

Staffordshire County Council continues to work in partnership with bus operators with the aim of increasing passengers on commercial services. This includes providing suitable roadside stops within 350m of new residential developments and, where necessary, the delivery of traffic management measures to help improve the operation of bus services. To encourage bus use, a number of town centres across Staffordshire are delivering Local Town Packages to improve the public realm and facilities at bus stations and bus stops. There may be provision of a new bus station in Lichfield and there is also the potential for the redevelopment of bus facilities in Cannock town centre in the future. In addition, there are plans to give buses priority over other traffic on key bus routes in Stafford and Stoke-on-Trent. This will build on the successful delivery of other schemes including £10m of new public realm improvements in Stoke-on-Trent, a £4.8m Cycle Stoke project and £15m City Centre Bus Station.

Staffordshire County Council's website provides up-to-date journey information, a sign up for alerts and access to the Dial-a-Ride service for anyone unable to access a local bus service. Bus operators are continuing to invest in modern vehicles with lower emissions, GPS and contactless technology for ticketing and real time information systems. National Express has introduced a new mobile app to show bus stop locations and real-time bus information. To maximise the accuracy of this data, bus stations and bus stops on key routes are being upgraded to include Real Time Passenger Information systems.

Working with partners at Transport for West Midlands, Midlands Connect is supporting an app to allow bus and tram passengers to use smartphones to pay for journeys. After a trial, this technology will be rolled out across the region as a Midlands-wide smart ticketing system supported by National Express coaches which are being fitted with contactless technology and Wi-Fi.

FUTURE REQUIREMENT TO MEET GROWTH

New bus stops are being delivered to support housing and economic development growth across the county, this includes new facilities at i54, Ministry of Defence land at Stafford, West of Stafford SDA and South of Lichfield SDA, whilst improvements are also being made to the Burntwood bus interchange.

In addition, improvements are planned to increase service provision and make bus travel more attractive, so it can better compete with other modes. These include:

- Upgrade of rail and bus interchanges to provide Real Time Passenger Information, bus priority, public realm improvements, pedestrian/ cycle connectivity, increased service frequency and passenger capacity.
- Improved connectivity to serve new and expanding employment areas including Towers Business Park, Mill Green Designer Outlet Village and the i54 extension.

It will also be important to collaborate with private bus operators to encourage the roll out of more environmentally friendly buses, alongside the wider provision of electric charging points and associated infrastructure, to minimise the impact of travel.

COSTS AND FUNDING

Based upon theoretical benchmark modelling the following costs and funding have been identified:

Cost = £58,120,000

Estimated Funding Gap = £130,000

ACTIVE MODES



CURRENT SITUATION

Staffordshire has a network of over 2,500 miles of Public Rights of Way (PROW) and recreational routes. Several long-distance routes pass through the county including the Staffordshire Way and the Heart of England Way, as well as a range of shorter trails based around the county's Country Parks and recreational parks. The overall quality of the network available for walking, cycling and horse riding is good, especially across the Cannock Chase Area of Outstanding Natural Beauty, the wider Special Area of Conservation, and the Peak District National Park. Cannock Chase alone has over 14.5 miles of footpath and 82 miles of bridleway.

The county's cycle routes comprise a mix of advisory on road, traffic free routes and shared footways. In recent years, an increased demand for recreational cycle routes in rural areas and commuter routes in urban areas has encouraged the building and maintenance of more off-road cycleways, greenways and bike trails. The canal network is extensive, with two major canals and several branch canals which once served Staffordshire's collieries, ironworks and potteries and are now a key leisure destinations for canal boat and outdoor enthusiasts.

EXISTING INFRASTRUCTURE CAPACITY AND ISSUES

Sustrans is continuing to develop the National Cycle Network (NCN) which currently stretches 14,000 miles across the UK and is continuing to grow. In Staffordshire it includes routes which connect with local canal tow paths including the Caldon Canal, the Shropshire Union Canal and the Staffordshire and Worcestershire Canal. This has encouraged more people to use and explore their local area.

Bikeability National Standard Training is now delivered by local providers on behalf of Staffordshire County Council and is funded by the Department for Transport (confirmed until 2020). There are a number of key cycling routes across Staffordshire including:

- National Route 5 between Birmingham and Lichfield, and between Stafford and Stoke-on-Trent.
- National Route 54 between Lichfield & Burton-upon-Trent
- National Route 55 between Stafford and Coalport via Newport and Telford.
- National Route 552 between Newport and Sound via Market Drayton and Audlem.
- National Route 81 between Birmingham and the England Wales border via Wolverhampton, Telford and Shrewsbury.
- NCN 550 – Etruria to Cheddleton
- NCN 555 – Stoke – Kidsgrove via Trent & Mersey Canal
- NCN 63 between Burton on Trent and Wisbech.

Staffordshire & Stoke-on-Trent's canal network is increasing in length as major restoration projects make use of infrastructure built over 200 years ago. The Trent and

Mersey Canal connects Stoke-on-Trent with Tamworth and the Staffordshire and Worcester Canal links Great Haywood with Wolverhampton. These two canals are a key link for journeys between the River Severn and the Manchester Ship Canal and the respective towpaths are popular pedestrian and cycle routes. In recent years, the Canal and River Trust have worked together with communities to restore waterways and improve blue-green space for all to enjoy.

Despite recent investment the following issues remain a challenge for active modes of travel:

- Cycle routes comprise a mix of advisory on road, traffic free routes and shared footways which are not always well integrated.
- A lack of wayfinding or overprovision of signage can be confusing for pedestrians and cyclists.
- Personal security is a key issue on some active travel routes particularly recreational routes which provide a commuting function, such as canal towpaths which are generally poorly lit/ unlit.
- The authorities are keen to increase cycle use and see a mode shift for commuting journeys. However, there is no current walking and cycling infrastructure plan which reduces the chances of securing funding for active travel schemes.

FUTURE REQUIREMENT TO MEET GROWTH

Staffordshire County Council with the support of the districts is currently preparing a Local Cycling and Walking Investment Plan (LCWIP) which will identify and objectively prioritise walking and cycling investment in the county. Stoke-on-Trent City Council are also preparing a LCWIP and will work with Staffordshire County Council in the North Staffordshire conurbation to ensure a network wide strategy. The strategy aims to increase walking and cycling activity by improving safety, providing for greater mobility and creating better environments for sustainable modes. In order to encourage active travel, Stoke-on-Trent started a wayfinding system in 2018 with Phase 2 currently being delivered on key parts of the core pedestrian and cycle network.

In Stoke-on-Trent, the Council are preparing to roll out the first phase of a signage upgrade/ rationalisation scheme based on Legible London (Transport for London's successful wayfinding scheme) in May/ June 2019. In addition, corridor based surfacing improvements are due to be rolled out on selected routes and former rail lines have been identified as an opportunity to increase greenway provision. Sustrans have acknowledged that the National Cycle Network within Staffordshire and Stoke-on-Trent requires investment.

COSTS AND FUNDING

Based upon theoretical benchmark modelling the following costs and funding have been identified:

Cost = £460,000

Estimated Funding Gap = £0

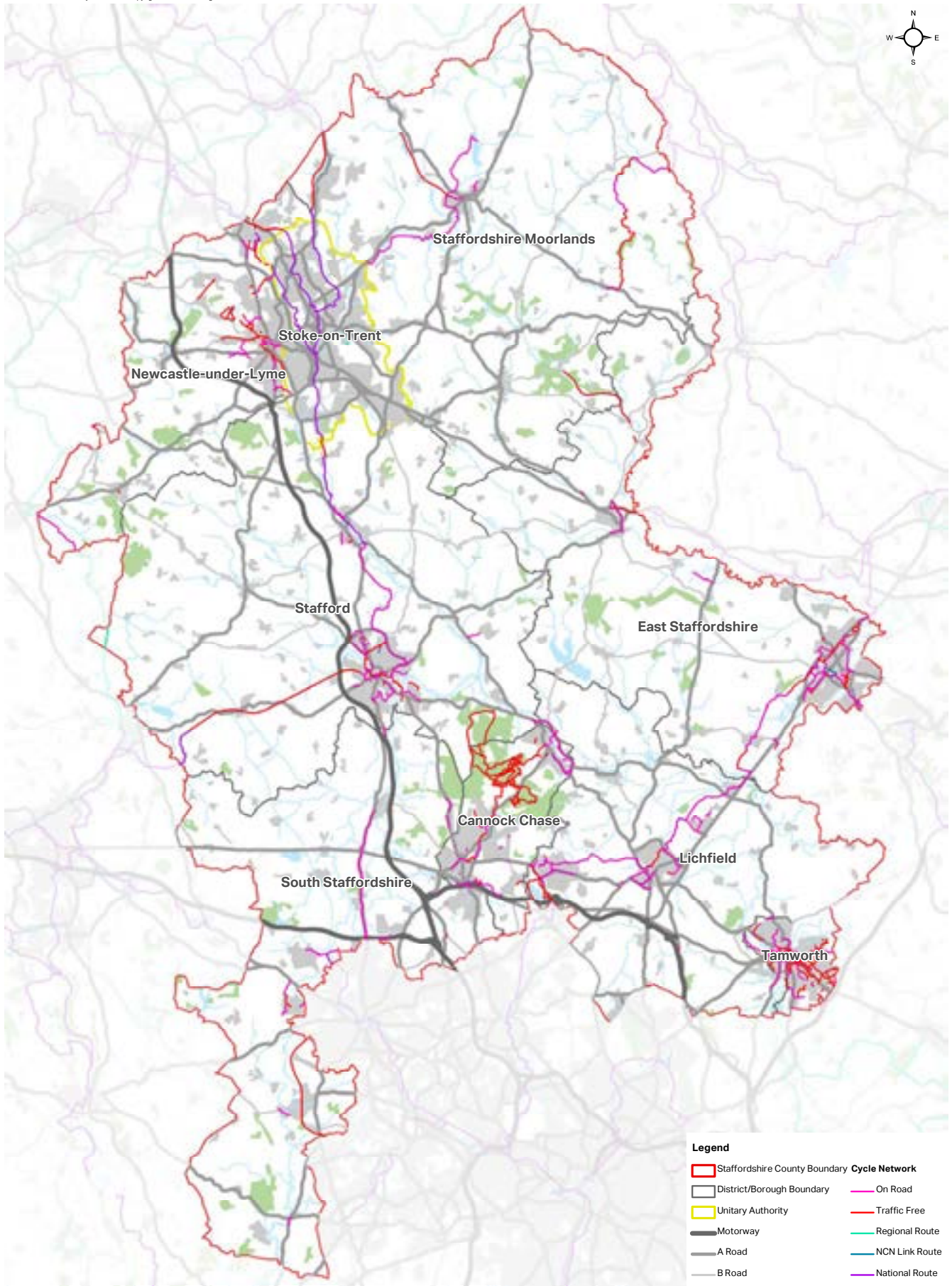


FIGURE 4.3 - CYCLE ROUTES IN STAFFORDSHIRE & STOKE-ON-TRENT

Source: Staffordshire County Council





4.2 EDUCATION

of free childcare per week with an additional 15 hours available for working families (scheme known as ‘30 hours’).

Local Authorities are also required to ensure there are enough childcare places available and an additional responsibility to:

EARLY YEARS & CHILDCARE

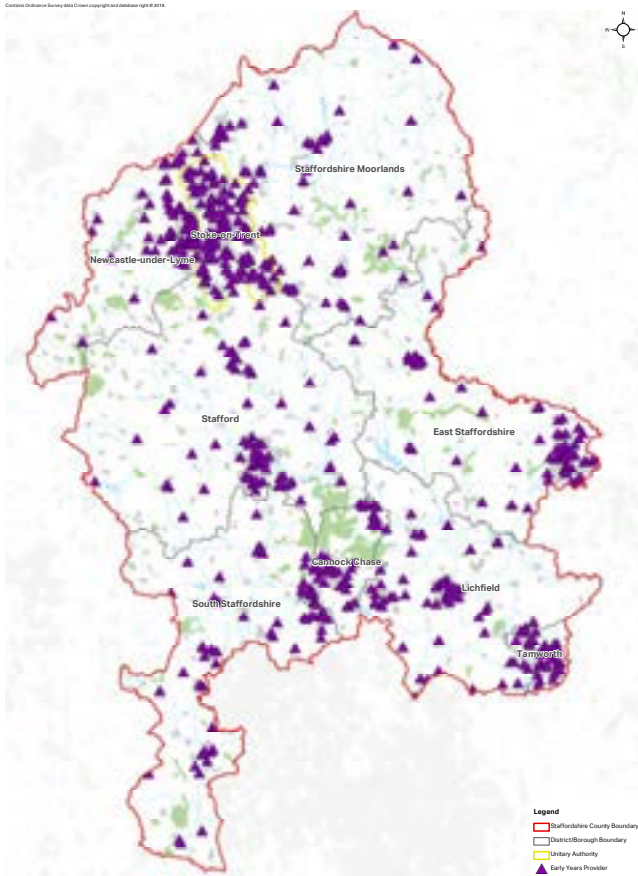


The availability of good quality childcare provision is essential for a number of reasons. It helps to ensure children have access to high quality support that contributes to early development, providing a basis for attainment at the Early Years Foundation Stage and throughout school. Childcare is also essential to allow parents the opportunity to access work, which in turn help to increase family incomes. Access to flexible, high quality and funded childcare is particularly important for lone parents and low income families who otherwise may have found access to employment unaffordable.

The Childcare Act 2006 places a statutory duty on Local Authorities to ensure there are enough childcare places available for families who wish to access them. This has led to an entitlement of 15 hours free childcare for 2 year olds in non-working or low income (e.g claimants of Income Support, income-based Job Seekers Allowance, Universal Credit or Tax Credits). families, known as Think2 in Staffordshire. All 3 & 4 year olds are eligible for 15 hours

Figure 4.5

Early years & childcare facilities



Source: Staffordshire County Council Early years Sufficiency Reports; Stoke-on-Trent City Council
Note - Diagram does not map all of facilities listed in Table 4.1, excluding childminders

- Publish information about childcare and other facilities;
- Provide information, advice and training to childcare providers. This includes the services that providers can charge for; and
- Influence and maintain a relationship with the sector using the Local Authority’s knowledge of its local communities. This includes working with providers to secure accreditation where gaps in provision occur and overcome challenges such as ensuring sufficient provision is provided in the more deprived areas of Staffordshire & Stoke-on-Trent.

The profile of childcare provision across the UK has become increasingly complex in recent years, providing greater choice and flexibility for parents. Provision is offered within school settings as well as private, voluntary and independent providers (e.g. childminders). Parents have the choice of where and how to use their free childcare entitlement which could include the use of full-time, part-time or wrap-around care. Schools are responsible for their own admissions, competing with private sector providers, and can choose to offer free full time or part time places.

CURRENT SITUATION

Staffordshire supports and benefits from a mixed economy of early years provision providing choice and flexibility to varying needs and requirements of families in the county.

Staffordshire’s Childcare Sufficiency Report states that 89% of childcare providers who have been inspected by Ofsted are rated as good or outstanding, a figure which has increased in recent years. The Sufficiency report also concludes that there are currently sufficient childcare places in Staffordshire to meet demand. It does, however, highlight the potential impact of rising costs on the availability of places.

Data provided by Staffordshire County Council shows in Summer 2018, a total of 4,054 places for two year olds are available across the County. The vast majority of places are available at day nurseries.

An estimated 746 places were vacant in the summer of 2018 providing a vacancy rate of rate of 18%. Vacancy rates vary between 13% in Newcastle-under-Lyme and 24% in Staffordshire Moorlands.

A total of 12,140 childcare places for 3-4 year olds are currently provided across Staffordshire while 1,935 vacancies currently exist, providing a vacancy rate of 16%. Vacancy rates range between 14% in Cannock Chase to 20% in Staffordshire Moorlands while 28% of 3-4 year old places are vacant within childminders.

Stoke-on-Trent’s Childcare Sufficiency Report states that as of July 2017, 100% of children accessing a free two year old childcare place were doing so with a good or outstanding provider. A total of 88% of three and four year old children accessing a free place were doing so in a good or outstanding private, voluntary and independent (PVI) provider or school whilst 100% of PVI nurseries and pre-school playgroups with an inspection grade were graded as good or outstanding.

The Sufficiency report also states the Local Authority is not currently aware of significant issues in relation to the sufficiency of childcare in the city as a whole as there are enough places for the number of children living and requiring childcare in Stoke-on-Trent.

Across Stoke-on-Trent there were 1,420 places available for two year olds and 5,423 for 3-4 year olds. The number of places taken in the summer of 2018 stands at almost 5,000, the largest proportion of which are within school and academy settings.

FUTURE PLANNING

The availability of childcare places is challenged by the 'hourly rate' paid to providers for free childcare places and the costs of offering these places. This could impact on the sector's ability to grow and respond to future changes in demand. The availability of childcare places is particularly challenged in areas of deprivation where the market rate for a childcare place is lower, reducing provider's ability to 'cross subsidise' places.

Table 4.1

Free Entitlement places & vacancies for 2 year olds (Think2)

	CHILD MINDER		DAY NURSERY		PRE-SCHOOL		MAINTAINED NURSERY	
	PLACES	VACANCIES	PLACES	VACANCIES	PLACES	VACANCIES	PLACES	VACANCIES
Cannock Chase	29	5	290	55	78	8	30	1
East Staffordshire	61	7	478	109	129	30	0	0
Lichfield	71	2	345	52	106	27	0	0
Newcastle-under-Lyme	44	5	388	55	98	8	0	0
South Staffordshire	37	0	338	49	166	51	0	0
Stafford	30	1	442	96	99	19	0	0
Staffordshire Moorlands	14	2	321	78	95	25	0	0
Tamworth	11	3	188	24	166	34	0	0
STAFFORDSHIRE	297	25	2,790	518	937	202	30	1

Source: Staffordshire County Council Early Years team

Table 4.2

Free Entitlement places & vacancies for 3 & 4 year olds

	CHILD MINDER		DAY NURSERY		PRE-SCHOOL		MAINTAINED NURSERY	
	PLACES	VACANCIES	PLACES	VACANCIES	PLACES	VACANCIES	PLACES	VACANCIES
Cannock Chase	37	13	1,013	142	178	25	60	4
East Staffordshire	105	9	1,516	320	385	56	0	0
Lichfield	126	54	1,087	122	304	78	0	0
Newcastle-under-Lyme	94	37	1,311	207	279	19	50	12
South Staffordshire	56	9	1,154	64	422	91	0	0
Stafford	89	17	1,169	188	298	30	0	0
Staffordshire Moorlands	24	8	1,331	271	181	32	0	0
Tamworth	18	6	451	55	402	66	0	0
STAFFORDSHIRE	549	153	9,032	1,369	2,449	397	110	16

Source: Staffordshire County Council Early Years team

Table 4.3

Stoke-on-Trent early years places

	SCHOOL / ACADEMY		PRIVATE, VOLUNTARY AND INDEPENDENT	
	PLACES AVAILABLE	PLACES TAKEN	PLACES AVAILABLE	PLACES TAKEN
2 years olds	80	54	1340	1109
3/4 year olds	3190	2840	2233	2140

Source: Stoke-on-Trent City Council Early years Team

The future profile of childcare places will be influenced by changes in government policy regarding the hourly rate and the entitlement to free places. Any new entitlements may mean the Councils require capital funding to support an increase in the sector's capacity over the short term.

FUTURE REQUIREMENTS TO MEET GROWTH

It is a statutory requirement for the County Council to provide childcare places for all three year olds. Staffordshire County Council's Planning Obligations Policy* outlines benchmarks for the number of nursery pupils arising from a new residential development. An estimated three early years / nursery pupils are forecast per 10 houses at a cost of £13,165**. Where the development falls within an area identified as being full in terms of early years provision, a contribution towards provision for early years is sought by the County Council.

Based on the housing growth presented in this document, a total of 2,603 additional early years and nursery places are required in Staffordshire and Stoke-on-Trent up to 2038.

* <https://www.staffordshire.gov.uk/Education/Schoolsandcolleges/PlanningSchoolPlaces/home.aspx>

** Cost multiplier per pupil including weighting

PRIMARY EDUCATION



Staffordshire &
Stoke-on-Trent

369

Primary Schools

Staffordshire &
Stoke-on-Trent

6,856

Unused spaces

CURRENT SITUATION

Government policy in England over the last twenty years has created a more diverse and complex system of education provision and accountabilities. Hundreds of new multi academy trusts (MATs) have been created and given greater control over the academies in their trusts. Regional Schools Commissioners (RSCs), on behalf of the Secretary of State for Education, are responsible for approving academy applications from schools and for converting schools judged as 'inadequate' into academies. In addition, RSCs are responsible for approving the opening of all new 'free schools', which are brand new academies set up by MATs, charities, teachers or parents to respond to the need for new schools in their communities, particularly in response to new housing.

Regulatory changes have also changed the way funding to schools is distributed, resulting in increased control for academy trusts, governing bodies and central government and, in turn, a reduced role for Local Education Authorities. Nevertheless, as the Local Education Authority, Staffordshire County Council and Stoke-on-Trent City Council continue to support the provision of excellent education for all children of compulsory school age and retain responsibility for:

- ensuring that every child has a school place
- ensuring fair access through admissions and transport arrangements
- ensuring the needs of vulnerable pupils are met
- acting as a champion for all parents and families

Table 4.4

Primary school capacity

	PRIMARY SCHOOLS	NET CAPACITY 2018/19	NUMBER ON ROLL	SUM OF SURPLUS	ADDITIONAL FORM ENTRIES REQUIRED TO 2038
Cannock Chase	27	8,258	7,429	829	7
East Staffordshire	42	10,479	9,683	796	15
Lichfield	39	8,671	8,086	585	15
Newcastle-under-Lyme	41	10,069	9,052	1,017	11
South Staffordshire	36	7,658	7,254	404	9
Stafford	47	10,496	9,462	1,034	10
Staffordshire Moorlands	42	7,042	6,434	608	5
Tamworth	24	6,892	6,160	732	7
STAFFORDSHIRE	298	69,565	63,560	6,005	79
Stoke-on-Trent	71	23,940	23,089	851	4
STAFFORDSHIRE & STOKE-ON-TRENT	369	93,505	86,649	6,856	83

Source: Staffordshire County Council, Stoke-on-Trent City Council. Capacity as at October 2018.

Local authorities also have a duty to ensure sufficient provision for children with special educational needs, however, the scope of this document is limited to mainstream education.

Staffordshire wants every one of the county's 400 schools to be rated as 'good' or 'outstanding' by Ofsted and for the county to be near the top of the performance table of our statistical neighbours. Its Education and Skills Strategy drives a shared leadership approach involving providers, partners and stakeholders from across the education and skills landscape. Stoke-on-Trent's Strategic Plan outlines a similar aspiration. It seeks a step change in educational attainment so that every young person has access to a school rated 'good' or better.

PRIMARY SCHOOL PROVISION

The primary education estate in Stoke-on-Trent has undergone rationalisation due to a period of surplus stock during the 1990s and opportunities to renew the school estate via public finance initiative and Building Schools for the Future. At present, Stoke-on-Trent has a total of 71 primary schools whilst 298 schools³ provide primary age education across Staffordshire.

Table 4.4 provides a summary of the number of pupils on the roll at primary schools in Staffordshire and Stoke-on-Trent and the total number of places they offer.

A programme of capital investment to create additional primary places is being delivered in areas of growth, through the expansion of existing schools and the opening of a new primary free schools. Primary schools across Staffordshire provide a total of 69,565 places compared to 63,560 pupils on roll, equivalent to 8.6% unused spaces. The percentage of unused spaces varies between the local boroughs and districts within Staffordshire.

Primary schools in Stoke-on-Trent provide a total of 23,940 places whilst 23,086 primary aged school pupils are currently registered on the school roll. A total of 851 places are currently available in Stoke-on-Trent, accounting for a 3.6% surplus of places across the city.

FUTURE REQUIREMENTS TO MEET GROWTH

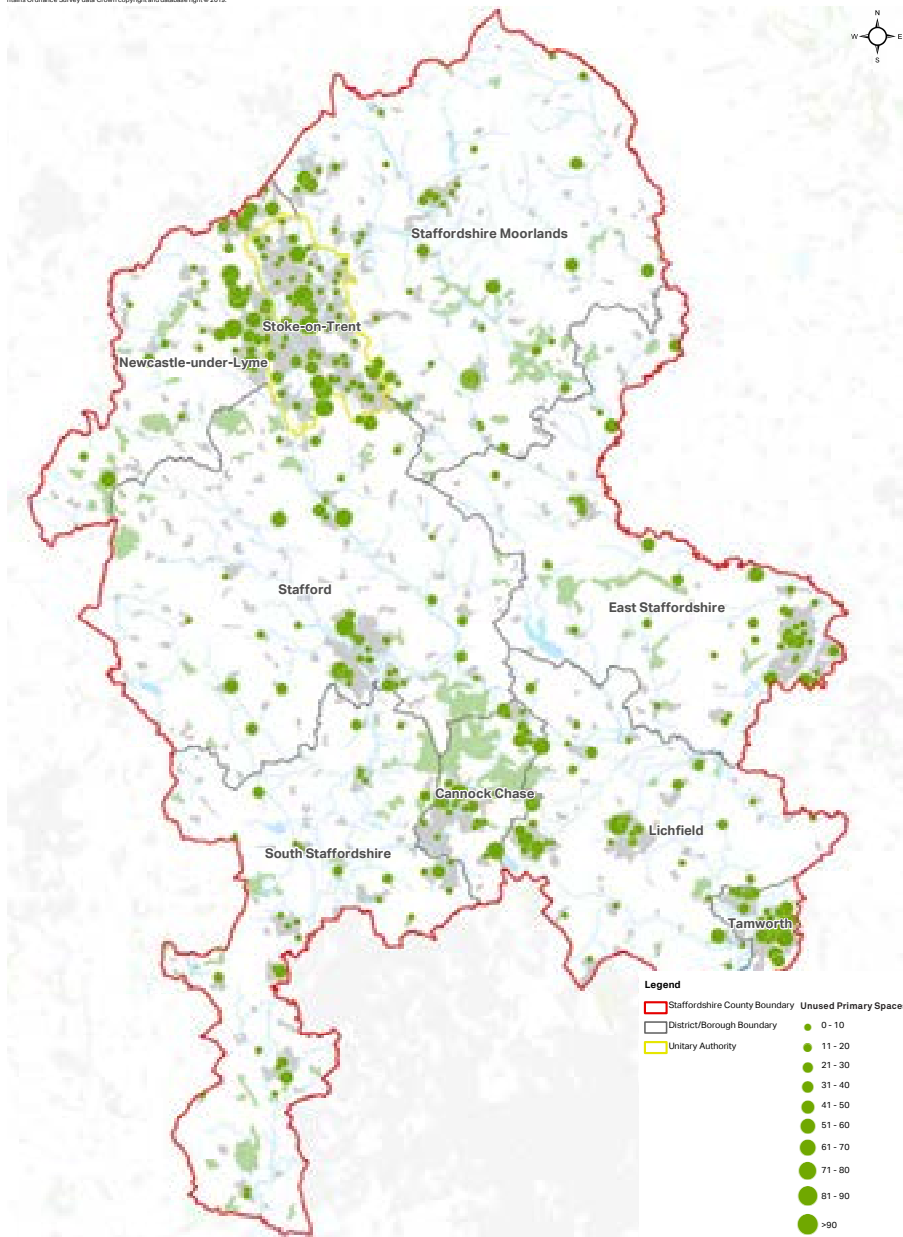
Figures calculated by Staffordshire County Council estimate the total number of primary school places required to meet the planned housing growth across current Local Plan periods. The Infrastructure Plan presents housing figures beyond the current plan periods. An estimate of the additional forms of entry required to accommodate the forecast housing growth has been calculated for housing growth beyond current plan periods. In total, an estimated 79 primary school forms will be required to accommodate the planned housing growth to 2038. Examples of current and proposed infrastructure schemes to accommodate growth include:

- A new first school with nursery provision on Land West of Uttoxeter
- A new primary school with nursery provision at Anker Valley, Tamworth
- A new primary school with nursery provision on Land at Stafford North
- A new primary school with nursery provision at Branston Locks in Burton
- A new primary school with nursery provision in Fradley
- A new primary school with nursery provision at Shortbutts Lane in Lichfield
- A new primary school with nursery provision at Deanslade Farm in Lichfield

Figure 4.6

Primary schools in Staffordshire & Stoke-on-Trent

Contains Ordnance Survey data. Crown copyright and database right © 2019.



¹ Education and Skills Strategy: A partnership framework for Staffordshire.

² Stoke-on-Trent City Council- Strategic Plan Vision, priorities and objectives, 2016-2020.

³ Primary aged education is considered to be provided by institutions registered as Infant, Primary, Junior and First Schools.

⁴ Figures based on Local Plans and other basic Need pressures. The number of form entries required post local plan period has been calculated based on the housing growth agreed to 2038 presented in this document. Form entries have been presented as the exact location of the proposed new homes is unknown and there is a mix of two and three tier education in Staffordshire.

Source: Staffordshire County Council and Stoke-on-Trent City Council

*Unused spaces depicted in green, Deficit depicted in red

The need for additional places has not considered the implications of the spatial strategies identified in emerging Local Plans and is based solely on the forecast housing need presented in Section 3

SECONDARY EDUCATION



Staffordshire & Stoke-on-Trent
85
Secondary Schools

Staffordshire & Stoke-on-Trent
9,194
Available places

CURRENT SITUATION

A total of 70 secondary schools (including 40 middle schools) are provided in Staffordshire while fifteen secondary schools are provided in Stoke-on-Trent. The secondary school estate in Stoke-on-Trent also underwent a programme of rationalisation and refurbishment via the Building Schools for the Future Programme, reducing the number of institutions from seventeen to fifteen.

Table 4.5 provides a summary of the number of pupils on the roll at institutions providing secondary schools education in Staffordshire and Stoke-on-Trent and the total number of places they offer.

A programme of capital investment to create additional secondary places is being delivered in areas of growth, through the expansion of existing schools and the opening of a new secondary free school. Schools offering secondary-aged education across Staffordshire provide a total of 69,263 places compared to 60,069 pupils on roll, equivalent to a 13% unused spaces. The percentage of unused spaces varies between the local borough and district councils within Staffordshire.

The secondary school sector in Stoke-on-Trent underwent a programme of rationalisation in the past twenty years with some schools being redeveloped via the public finance initiative or the Building Schools for the Future Programme. Secondary schools in Stoke-on-Trent provide a total of 14,469 places whilst 12,943 secondary aged school pupils are currently registered on the school roll. A total of 1,563

secondary school places are currently available in Stoke-on-Trent, accounting for an 11% surplus of places across the city.

FUTURE REQUIREMENTS TO SUPPORT GROWTH

Figures calculated by Staffordshire County Council estimate the total number of secondary school places required to meet the planned housing growth across current Local Plan periods. The Infrastructure Plan presents housing figures beyond the current plan periods. An estimate of the additional forms of entry required to accommodate the forecast housing growth has been calculated for housing growth beyond current plan periods. In total, an estimated 70 secondary school forms will be required to accommodate the planned housing growth to 2038. Examples of current and proposed infrastructure schemes to accommodate growth include:

- Expansion of The Rawlett School, Tamworth.
- Enlargement of Nether Stowe High School, Lichfield;
- Expansion of King Edward VI High School, Lichfield; and
- A proposed new secondary school in Stafford;

COSTS AND FUNDING

Based upon theoretical benchmark modelling the following costs and funding have been identified for **early years, primary & secondary education**:

Cost = £294,790,000

Estimated Funding Gap = £146,070,000

Table 4.5

Secondary school capacity and forecast pupil change

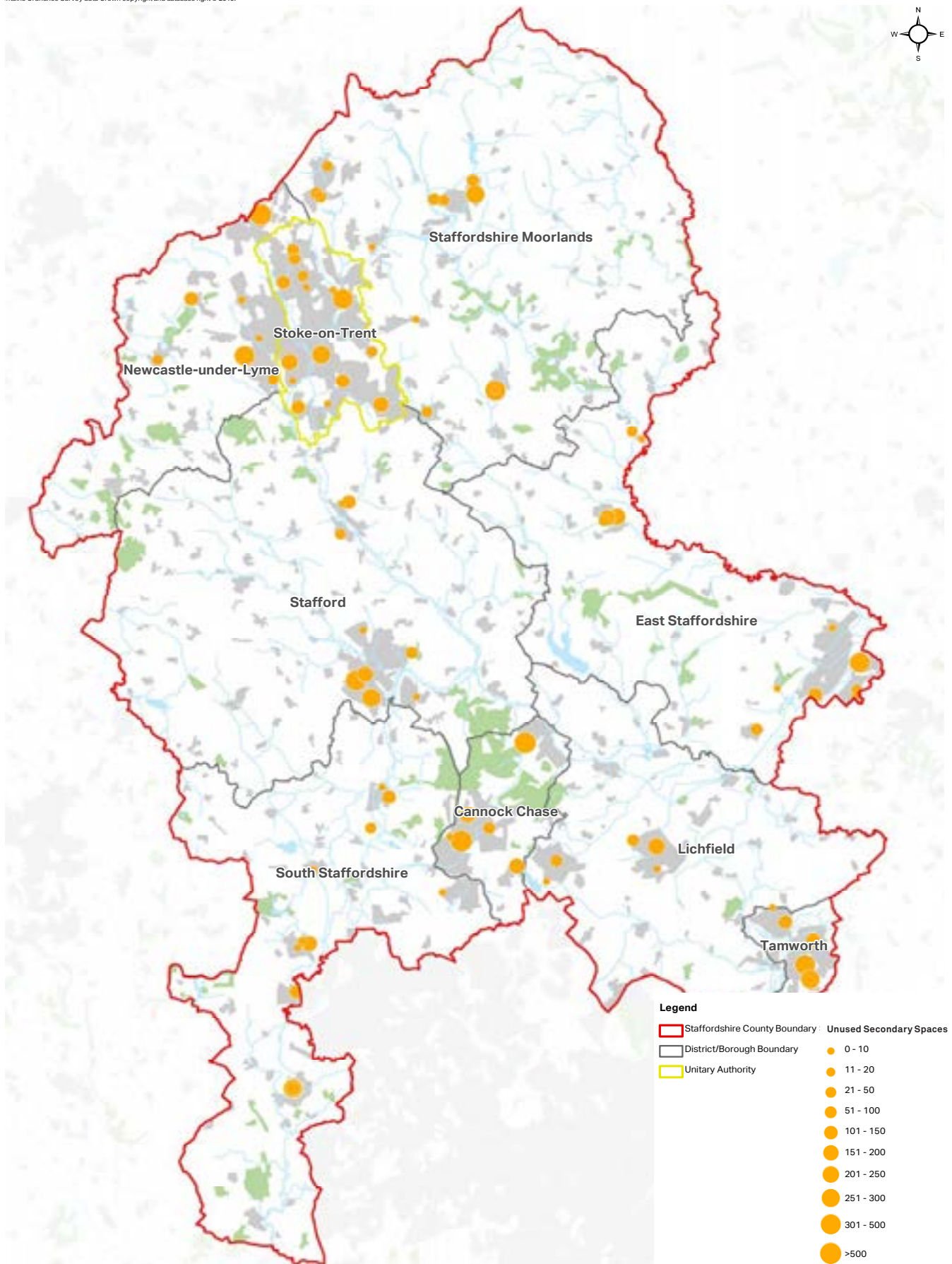
	SECONDARY SCHOOLS	NET CAPACITY 2018/19	NUMBER ON ROLL	SUM OF SURPLUS	ADDITIONAL FORM ENTRIES REQUIRED TO 2038
Cannock Chase	6	5,752	4,477	1,275	3
East Staffordshire	12	9,214	8,268	946	19
Lichfield	5	5,131	4,790	341	7
Newcastle-under-Lyme	9	7,253	5,933	1,320	11
South Staffordshire	12	7,321	6,331	990	9
Stafford	9	7,121	6,137	984	11
Staffordshire Moorlands	12	8,298	7,350	948	6
Tamworth	5	4,704	3,840	864	4
STAFFORDSHIRE	70	54,794	47,126	7,668	70
Stoke-on-Trent	15	14,469	12,943	1,526	4
STAFFORDSHIRE & STOKE-ON-TRENT	85	69,263	60,069	9,194	74

Source: Staffordshire County Council, Stoke-on-City Council

Figure 4.7

Secondary schools in Staffordshire & Stoke-on-Trent

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Source: Staffordshire County Council and Stoke-on-Trent City Council

FURTHER AND HIGHER EDUCATION



Staffordshire & Stoke-on-Trent
9
HE Campus

Staffordshire & Stoke-on-Trent
10
FE Colleges

Staffordshire & Stoke-on-Trent
50
Schools with Sixth Forms

CURRENT SITUATION

There are ten Further Education (FE) campuses across Staffordshire & Stoke-on-Trent, operated by five providers: Burton & South Derbyshire College, Buxton & Leek College, Newcastle and Stafford Colleges Group, South Staffordshire College, and Stoke-on-Trent College. These campuses are located across all of the districts in Staffordshire & Stoke-on-Trent. In addition, there are 50 secondary schools providing sixth form education. This includes 49 operated by the Councils and one free school. There is an even spread of Further Education institutes with at least one campus in each district. All districts have at least one school providing sixth form education too.

There are nine Higher Education (HE) campuses across Staffordshire & Stoke-on-Trent, run by five providers. Staffordshire University and Keele University are the two largest Higher Education providers: Staffordshire University has 14,345 students across its two campuses in Stafford and Stoke-on-Trent whilst Keele University, based in Newcastle-under-Lyme, has 10,870 students. Staffordshire University also delivers courses in partnership with local colleges across the county. South Staffordshire College has campuses in Rodbaston and Lichfield. The University of Derby delivers higher education courses at its Leek FE campus. The New Beacon Group delivers at its site at Beaconside in Stafford, including in partnership with Wolverhampton University and Staffordshire University. Wolverhampton University has premises in Stafford town centre and Beaconside.

There have been a number of capital investments across FE and HE institutes in recent years and further ambitious projects are in the pipeline subject to securing sufficient match funding.

The Stoke-on-Trent and Staffordshire Local Enterprise Partnership alongside private investment has supported £18m capital projects through the Advanced Manufacturing & Engineering Hub and the Skills Equipment Fund. The Advanced Manufacturing & Engineering Hub provides world-class vocational environments in the manufacturing & engineering sector and has been developed over two phases through £13.3m of LEP and private investment in facilities at sites in Newcastle-under-Lyme, Stafford, Tamworth, Uttoxeter, South Staffordshire and Stoke-on-Trent. Each site has a lead specialism, world class equipment and trains to the latest industry standards that enables the delivery of high quality and high level training programmes to support growth in the sector. The sites include South Staffordshire College's £5.3m AgriSTEM Academy at its Rodbaston campus that delivers industry relevant training for the Advanced Manufacturing & Engineering and Agricultural Engineering & Technology sectors in the region. Newcastle & Stafford Colleges Group's Science & Technology Centre at Stafford has the primary focus of developing STEM-related curriculum primarily at Levels 3, 4 and 5. There has also been recent investment in Cannock through the Skills and Innovation Hub and Engineering Academy.

The £5m LEP funded Skills Equipment Fund (SEF) has funded seven projects with FE, HE and private sector employers across Staffordshire and Stoke-on-Trent to purchase state of the art equipment to enable the delivery of high quality and high level training programmes to support the growth in Stoke-on-Trent and Staffordshire's priority economic sectors.

Newcastle & Stafford College Group is planning the build of a £23m Skills & Innovation Centre at its Stafford campus.

Table 4.6

Post-16 education facilities

	UNIVERSITIES/ HIGHER EDUCATION	COLLEGES/ FURTHER EDUCATION	SCHOOLS WITH SIXTH FORM
Cannock Chase	-	1	6
East Staffordshire	-	1	8
Lichfield	1	1	5
Newcastle-under-Lyme	1	1	2
South Staffordshire	1	1	7
Stafford	4	1	7
Staffordshire Moorlands	1	1	7
Tamworth	-	2	1
STAFFORDSHIRE	8	9	43
Stoke-on-Trent	1	1	7
STAFFORDSHIRE & STOKE-ON-TRENT	9	10	50

Source: Staffordshire County Council, Stoke-on-Trent and AECOM web-based research

The Centre will house Engineering, Hybrid Plant and Motor Vehicle Maintenance, Computing and Construction Skills. The project will safeguard and enable growth to the existing provision currently housed at a leased site earmarked for redevelopment as part of the HS2/Stafford Gateway initiative. The project will provide much needed training in high-value infrastructure skills necessary to support the ambitious growth and job creation plans within the locality including HS2, significant housing projects and rapid developments in hybrid technology.

Stoke-on-Trent College is refurbishing its existing library on its Caudon campus to create a Creative & Cultural Hub to provide rehearsal spaces, studio and recording facilities and a performance venue. Plans are also in development for the reconfiguration of the Leek & Buxton College Stockwell Street campus and South Staffordshire College's Tamworth campus.

Keele University is planning a number of capital projects including £45m state-of-the-art sports and science facilities including new laboratories and teaching spaces on its campus, a £18m Smart Innovation Hub to house its management school and incubated companies and a £13m SMART Energy Network Demonstrator (SEND). The SEND will be the first facility in Europe for at-scale living laboratory research, development and demonstration of new smart energy technologies and services in partnership with business and industry. The project will create a decentralised energy system, providing Keele University with the infrastructure to monitor and manage its energy across the campus – the largest in the UK.

Staffordshire University has secured capital funding to build a £17m Apprenticeships & Digital Skills Hub at its Leek Road campus in Stoke-on-Trent. The project will support the training of thousands of Apprentices in digital skills and will provide flexible state of the art technology enabled space and specialist equipment to support engagement with local companies. The University is also developing a £40m catalyst building to house the Apprenticeships & Digital Skills Hub, a new library, social learning spaces and a restaurant and café.

COSTS AND FUNDING

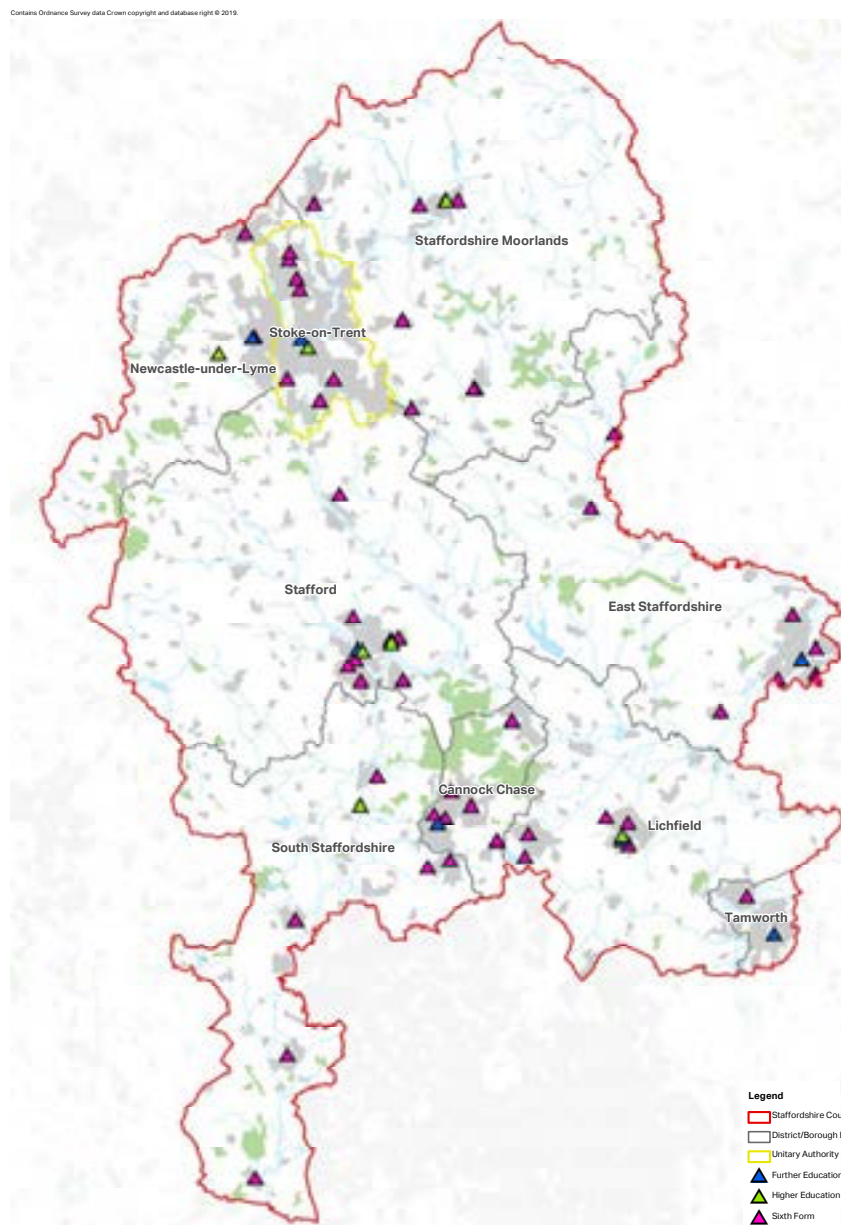
Based upon the SIP Project Schedule and theoretical benchmark modelling where no tangible projects have been identified, the following costs and funding have been identified:

Cost = £355,640,000

Estimated Funding Gap = £31,540,000

Figure 4.8

Post 16 education facilities



Source: Staffordshire County Council, Stoke-on-Trent and AECOM web-based research



4.3 HEALTH + SOCIAL CARE

PRIMARY & COMMUNITY SERVICES



Staffordshire & Stoke-on-Trent
153
GP Surgeries

Staffordshire & Stoke-on-Trent
650
FTE GPs (in 2018)

CURRENT SITUATION

Health services in England are led by NHS England, operating five regional teams that commission healthcare services and provide professional services to the health sector. NHS Midlands and East support the commissioning of services in the West Midlands in partnership with Clinical Commissioning Groups (CCGs) and Acute Trusts.

Clinical Commissioning Groups were established via the Health and Social Care Act 2012 and changed the way that primary care services are planned and organised. CCGs commission most of the hospital and community NHS services including most hospital care, rehabilitative care, urgent and emergency care, most community health services and mental health and learning disability services. They also have delegated responsibility for commissioning GP services. The following six Clinical Commissioning Groups cover Staffordshire and Stoke-on-Trent:

1. Cannock Chase CCG
2. East Staffordshire CCG
3. North Staffordshire CCG
4. South East Staffordshire and Seisdon Peninsula CCG
5. Stafford and Surrounds CCG
6. Stoke-on-Trent CCG

In March 2016 NHS England further reorganised into 44 Sustainability and Transformation Partnership (STP) areas. These were agreed by NHS Trusts, local authorities and CCGs. The STP is currently the key unit of planning with NHS providers and commissioners working together to understand the clinical and service strategy for the area, which will drive the need for any new development and prioritise infrastructure investment. This move towards STPs has focused on improving integration of healthcare services (CCGs, Trusts and Adult Social Care), while reorganising GP provision through a focus on the development of hubs to create better scale of provision. This involves limiting the development of new GP practices through procurement, resulting in total footprint reductions, despite increasing demand. For both health and social care the focus is on prevention and care provision outside of hospitals/ the health estate where possible.

'Refreshing NHS Plans for 2018-19' set out the ambition for CCGs to actively encourage every practice to be part of a local primary care network so that these cover the whole country as far as possible by the end of 2018/19. Primary

care networks will be based on GP registered lists, typically serving natural communities of around 30,000 to 50,000. They should be small enough to provide the personal care valued by both patients and GPs, but large enough to have impact and economies of scale through better collaboration between practices and others in the local health and social care system.

'Together We're Better' is the Sustainability and Transformation Partnership (STP) for Staffordshire and Stoke-on-Trent. The Staffordshire and Stoke Sustainability Transformation Plan (2016) identifies the following priorities for health service delivery:

- Focused prevention;
- Enhanced primary and community care;
- Effective and efficient planned care;
- Simplify urgent and emergency care system; and
- Reduce costs of service.

Figure 4.9
Clinical Commissioning Groups (CCGs)



Source: NHS England

The Transformation Plan highlights the financial challenge facing healthcare providers and a number of issues that are driving demand for services. These include:

- Poor current health and wellbeing of the population with particularly high prevalence of obesity and diabetes across the county and hotspots of high smoking rates.
- The ageing and growing population generating increased demand for all areas of the health service.
- Current culture and behaviours of citizens exacerbate demand as they attend A&E more frequently than peers, and the risk averse culture of staff does not counter this.
- A significant proportion of patients with common mental health conditions.
- Urgent care activity at both acute trusts is higher than peers for A&E attendances and readmission rates. High demand is due to the poor primary and community infrastructure, the current system configuration and the culture and behaviours of citizens.

In addition, the Pan Staffordshire Health Economy Estates Plan identifies the following 'drivers of change' for the health estate:

- Need to drive efficiencies via closer work with provider organisations
- Pockets of multiple deprivation, with high levels of high-risk behaviours and multiple conditions
- The financial challenge across the health economy: must be addressed, but the quality of service must also be maintained

To address the expanding demand on healthcare services there needs to be a radical change in the clinical models that drive the healthcare system. These are currently being reviewed across Staffordshire as part of a business case process. A key part of Public Health England's Strategy

2020-2025 is to promote place-based approaches to health care delivery and support the process of integrating services locally, including through the devolution of powers. This will include moving some services away from secondary care and into primary care to be delivered at the community level. This approach will take pressure away from the acute hospital, deliver services more locally offering better access and to reduce costs. Early indications are that a number of Urgent Treatment Centres and new Integrated Care Hubs will be delivered across Staffordshire.

EXISTING INFRASTRUCTURE CAPACITY AND ISSUES

- Staffordshire & Stoke-on-Trent has a total of 153 GP Practices and 650 full time equivalent GPs providing over 1.12m patient places.
- Analysis of GPs to patients indicates that in Staffordshire and Stoke-on-Trent there are 1,738 patients per GP. The ratio of patients to GPs varies across districts from 1,512 in Staffordshire Moorlands to 2,160 in Stafford.
- A total of 1.13m patients are registered at GP practices across Staffordshire and Stoke-on-Trent compared to a theoretical capacity of 1.12m patients, creating a deficit of 9,248 places. Four boroughs have an estimated surplus of places (East Staffordshire, Newcastle-under-Lyme, South Staffordshire and Staffordshire Moorlands) with the highest surplus of places being recorded in Newcastle-under-Lyme. Noticeable deficits of places are recorded in Stafford and Stoke-on-Trent.

COSTS AND FUNDING

Based upon the theoretical benchmark modelling the following **primary healthcare** costs and funding have been identified:

Cost = £327,890,000

Estimated Funding Gap = £295,100,000

For Primary healthcare VAT has been included due to the inability of NHS Trusts to claim back VAT.

Table 4.7

Primary healthcare capacity

	GP PRACTICES	REGISTERED PATIENTS (DEC 2018)	GPS (FTE)	THEORETICAL CAPACITY (0.58 GPS PER 1000)	ESTIMATED SURPLUS/DEFICIT
Cannock Chase	18	105,310	57.1	98,393	-6,917
East Staffordshire	15	122,941	72.8	125,508	2,567
Lichfield	7	82,289	44.6	76,941	-5,348
Newcastle-under-Lyme	19	128,839	84.9	146,424	17,585
South Staffordshire	15	98,069	64.1	110,471	12,402
Stafford	11	116,423	53.9	92,903	-23,521
Staffordshire Moorlands	13	92,057	60.9	104,966	12,909
Stoke-on-Trent	44	295,478	164.7	284,033	-11,445
Tamworth	11	88,801	47.2	81,320	-7,481
STAFFORDSHIRE & STOKE-ON-TRENT	153	1,130,207	650.2	1,120,959	-9,248

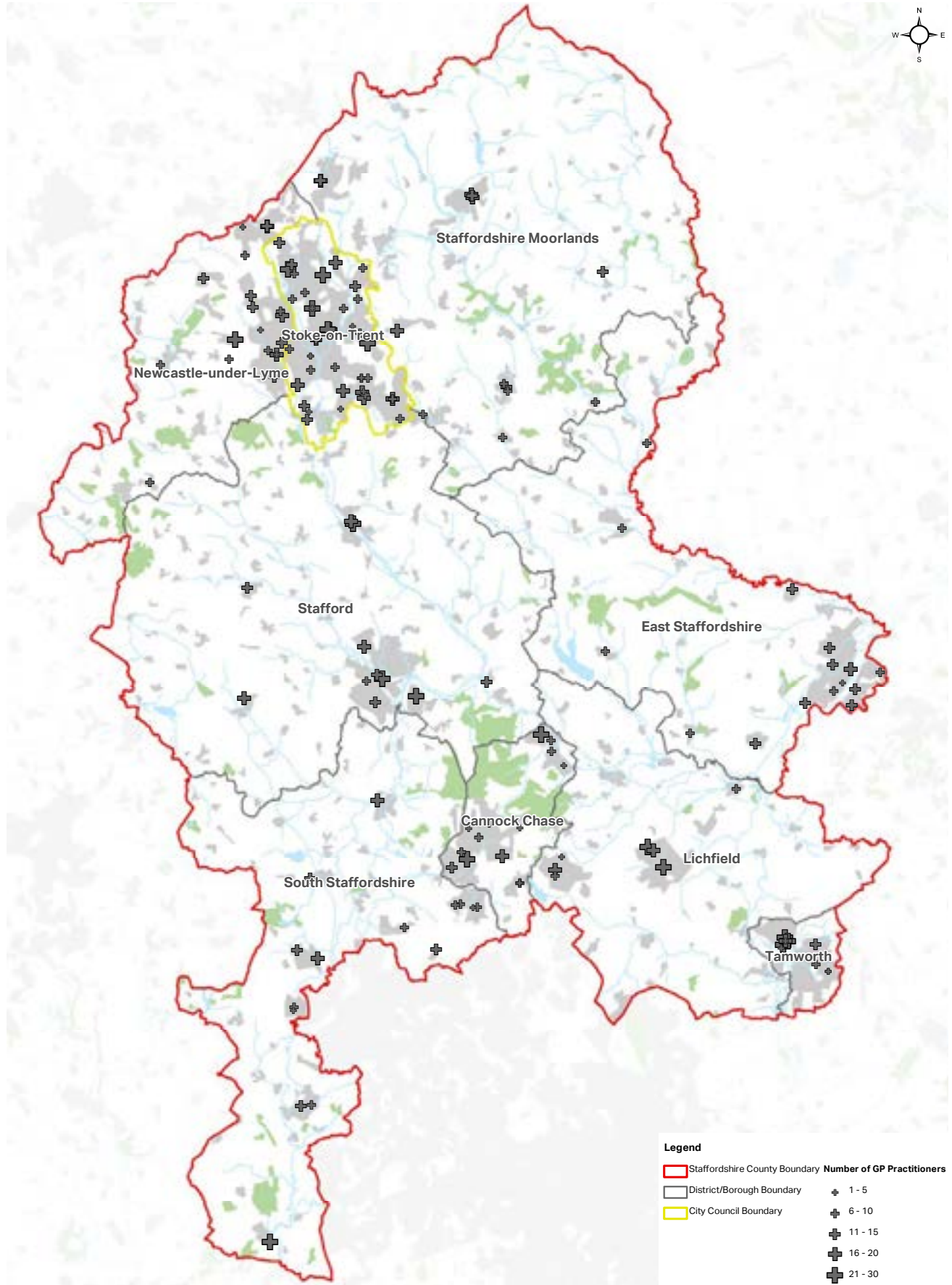
Source: General Practice Workforce Final 31 December 2018, Experimental Statistics. <https://digital.nhs.uk/data-and-information/publications/statistical/general-and-personal-medical-services/final-31-december-2018>.

Theoretical capacity based on a benchmark of 0.58 GPs per 1000 patients. Source: <https://www.nhs.uk/Scorecard/Pages/IndicatorFacts.aspx?MetricId=100063>

Figure 4.10

Primary healthcare capacity

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Source: NHS England, General Practice Workforce Final 31 December 2018, Experimental Statistics. <https://digital.nhs.uk/data-and-information/publications/statistical/general-and-personal-medical-services/final-31-december-2018>. Map shows the number of GPs at each surgery



HOSPITALS AND MENTAL HEALTH



Staffordshire & Stoke-on-Trent
2,850
NHS Acute hospital beds



Staffordshire & Stoke-on-Trent
>150
Mental health hospital beds

CURRENT SITUATION

There are a significant number of organisations providing acute hospital, community and mental health services in Staffordshire & Stoke-on-Trent, which include Foundation Trusts, NHS Trusts and social enterprises. The majority of these services are commissioned locally by CCGs with some more specialist services under the responsibility of NHS England. Acute health trusts provide secondary care and more specialised services, in which acute trusts are commissioned by CCGs.

Hospital provision in Staffordshire & Stoke-on-Trent is provided by the Midlands Partnership NHS Foundation Trust, the University Hospitals of North Midlands NHS Trust, University Hospitals of Derby and Burton NHS Foundation Trust, the North Staffordshire Combined Healthcare NHS Trust, and the Royal Wolverhampton NHS Trust:

Midlands Partnership NHS Foundation Trust

Midlands Partnership NHS Foundation Trust provides physical and mental health, learning disability and adult social care services across Staffordshire & Stoke-on-Trent, as well as Shropshire. They provide a vast range of community services for adults and children and specialised services such as rheumatology and rehabilitation, which are delivered in venues ranging from health centres, GP practices, community hospitals and people's own homes.

The Trust also provides services on a wider regional or national basis including perinatal, eating disorder and forensic services. They deliver out-of-area sexual health services and their Inclusions service offers psychological and drug and alcohol services, in the community and in

prisons, and has contracts across the country. The following hospitals are operated by the Trust:

- Bradwell Community Hospital, Newcastle-under-Lyme
- Cheadle Hospital, Staffordshire Moorlands
- George Bryan Centre, Tamworth
- Haywood Hospital, Stoke-on-Trent
- Leek Moorlands Hospital, Staffordshire Moorlands
- Longton Cottage Hospital, Stoke-on-Trent
- The Redwoods Centre (*located in Shropshire*)
- St George's Hospital, Stafford

University Hospitals of North Midlands NHS Trust

The University Hospitals of North Midlands NHS Trust has two sites: Royal Stoke University Hospital, located in Stoke-on-Trent, and County Hospital, located in Stafford.

University Hospitals of Derby And Burton NHS Foundation Trust

University Hospitals of Derby and Burton (UHDB)'s Staffordshire & Stoke-on-Trent locations are Queen's Hospital Burton, Sir Robert Peel Community Hospital in Tamworth, and Samuel Johnson Community Hospital in Lichfield. Outside of Staffordshire & Stoke-on-Trent, the Trust also has the Royal Derby Hospital and London Road Community Hospital in Derby.

North Staffordshire Combined Healthcare NHS Trust

The Trust provides patient centred mental health, specialist learning disability and related services for people of all ages. The Trust aims to be the best in all that they do and working in partnership to deliver services that promote recovery, well-being and independent living. They run the Harplands Hospital in Stoke-on-Trent as well as smaller inpatient units and rehabilitation centres.

Royal Wolverhampton NHS Trust

Cannock Chase Hospital transferred to the Royal Wolverhampton Trust in 2014 and is the Trust's only Staffordshire & Stoke-on-Trent location. Additionally the

Table 4.9

NHS hospital availability & occupancy EXISTING HOSPITAL BED AVAILABILITY AND OCCUPIED BED AVAILABILITY (2018)

	GENERAL & ACUTE	LEARNING DISABILITY	MATERNITY	MENTAL HEALTH	TOTAL
Midlands Partnership NHS Foundation Trust Beds available, <i>beds occupied</i> (% occupied)	148 139 (94%)	22 14 (64%)	-	303 262 (86%)	473 415 (88%)
University Hospitals of North Midlands NHS Trust Beds available, <i>beds occupied</i> (%)	1,334 1,180 (89%)	-	64 57 (89%)	-	1,398 1,237 (89%)
University Hospitals of Derby and Burton NHS Foundation Trust Beds available, <i>beds occupied</i> (%)	1,368 1,193 (87%)	-	89 60 (67%)	-	1,457 1,253 (86%)
North Staffordshire Combined Healthcare NHS Trust Beds available, <i>beds occupied</i> (%)	-	12 9 (75%)	-	170 134 (79%)	182 143 (79%)
Royal Wolverhampton NHS Trust Beds available, <i>beds occupied</i> (%)	823 748 (91%)	-	36 33 (92%)	-	859 781 (91%)
ENGLAND <i>BEDS AVAILABLE, beds occupied</i> (%)	100,535 90,706 (90%)	997 766 (77%)	7,649 4,452 (58%)	18,407 16,285 (89%)	127,589 112,209 (88%)

Source: NHS England: Unify2 data collection - KH03 - Average daily number of available and occupied beds open overnight by sector (October to December 2018)

Trust runs New Cross Hospital and West Park Hospital in Wolverhampton.

KEY FINDINGS

- In total, there are 4,369 hospital beds available at the NHS Trusts that operate in Staffordshire & Stoke on Trent. Over 3,673 of these are general and acute beds while there are 473 bed spaces for mental health.
- Total bedspace occupation ranges from 79% to 91% in the NHS Trusts operating in Staffordshire & Stoke-on-Trent. Occupation is highest for general and acute beds in the Midlands Partnership NHS Foundation.
- For general & acute facilities, both University Hospitals of North Midlands (89%) and University Hospitals of Derby and Burton (87%) are both less occupied than the average across England (90%). However the Midlands Partnership NHS trust is occupied at a higher percentage (94%).
- Those hospitals that provide maternity facilities in Staffordshire & Stoke-on-Trent are more occupied than the average across England (58%). The Royal

Wolverhampton hospitals are 91% occupied, The University Hospitals of the North Midlands 89% occupied, and the University Hospitals of Derby and Burton being 67% occupied.

- The availability of mental health bedspace varies between the two Trusts providing bed spaces in Staffordshire & Stoke-on-Trent. Occupation ranges from 86% in the Midlands Partnership Trust to 79% in the North Staffordshire Combined Healthcare NHS Trust. Both of these are less occupied than the level across England (89%).

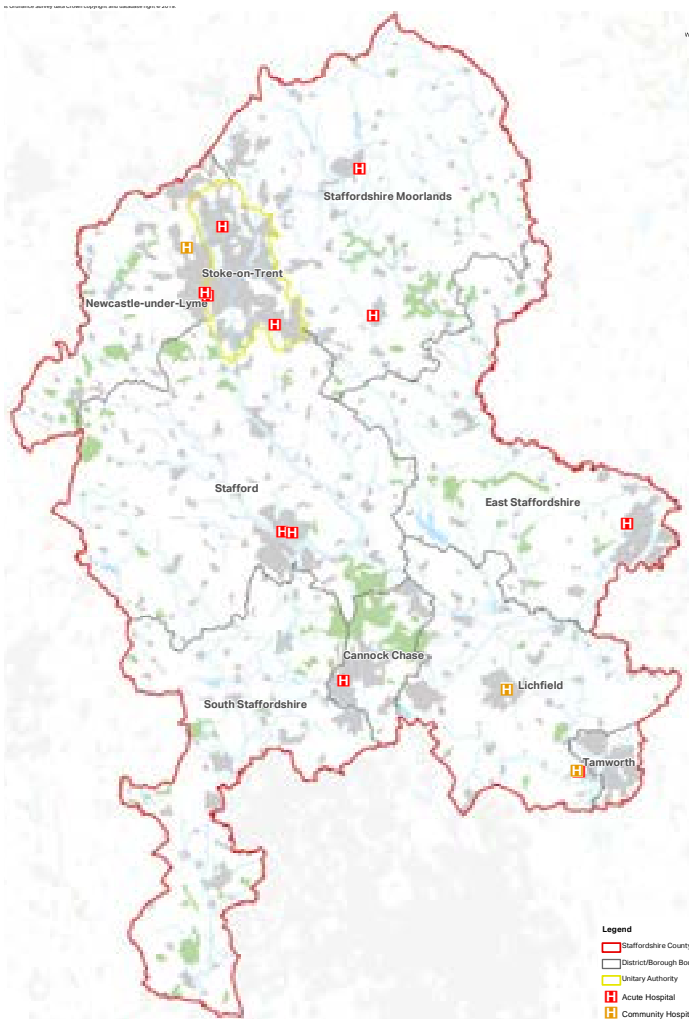
COSTS AND FUNDING

Based upon theoretical benchmark modelling, the following costs and funding have been identified:

Cost = £69,660,000

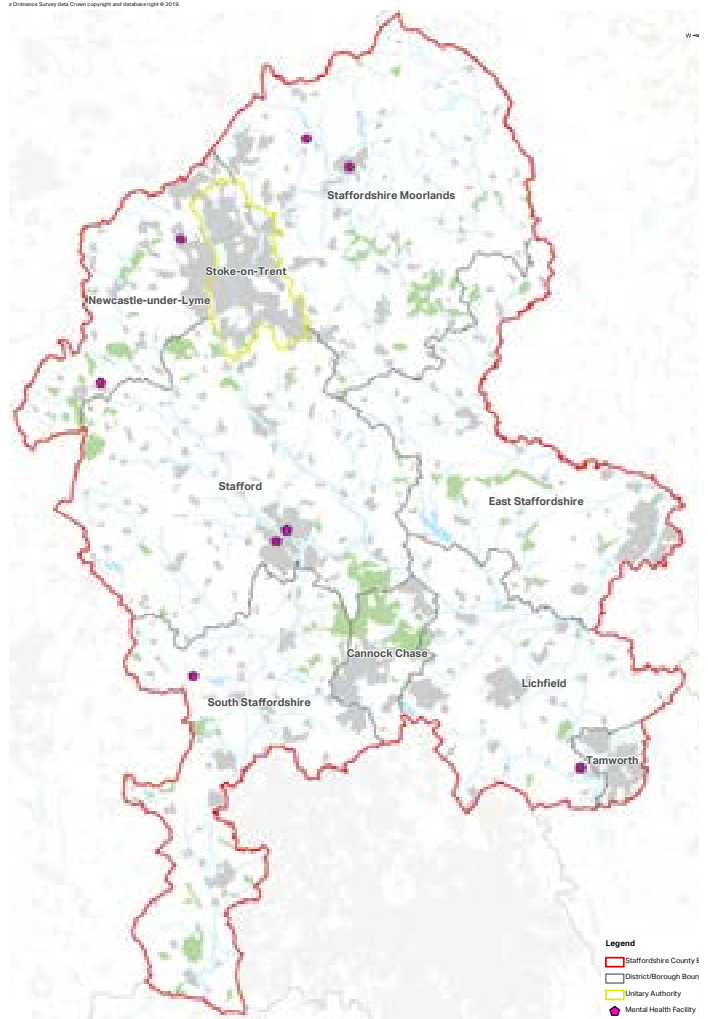
Estimated Funding Gap = £62,690,000

Figure 4.11
NHS hospital locations



Source: Staffordshire County Council

Figure 4.12
Mental health facilities



Source: Staffordshire County Council

ADULT SOCIAL CARE



Staffordshire
80
Nursing Homes

Staffordshire
173
Residential Care Homes

CURRENT SITUATION

The Department of Health and Social Care is responsible for adult social care policy in England, with the Care Quality Commission the independent regulator of adult social care services to ensure people are provided with safe, effective, compassionate, high-quality care.

In England, adult social care is either paid for publicly or privately, or provided voluntarily. Local authorities provide publicly funded care. They have a legal duty to provide care to those who pass centrally set needs and means tests. For those who pass these tests, local authorities commission or directly deliver services.

The Ministry of Housing, Communities and Local Government has overall responsibility for the local government finance and accountability system. As such, while adult social care is delivered and mainly funded locally, central government determines how much money local authorities have to spend and what they are obliged to spend it on. It has significant influence over councils' revenues, ability to borrow and legal obligations.

Pressures on adult social care budgets have increased in recent years, owing to increased demands for care (with a growing, ageing population resulting in more adults with long-term and multiple health conditions and disabilities living longer), reductions in overall funding for local government and the increased cost of care.

As a result, conditions in the adult social care sector suggest an increasingly fragile provider market, growing unmet need, further strain on informal carers, less investment in prevention, continued pressure on an already

overstretched care workforce, and a decreased ability of social care to help mitigate demand pressures on the NHS.

In Staffordshire, the Council is spending a record amount on social care owing to the aforementioned conditions facing the sector. The Council's budget for 2019/20 outlines £205.63 million for adult social care and safeguarding and care commissioning with a forecast budget of £233.58million for the same services in 2023/24. There is a critical need for the implementation of a sustainable funding arrangement for care services in order for the County to meet the continuing long term needs of the population. The issue of funding for adult social care services is a significant issue at both the Staffordshire and national scales. At this point in time the government is set to publish a green paper to consider future funding arrangements.

Stoke-on-Trent is seeing similar pressures on its adult social care services. It has allocated £71.7 million towards Social Care, Health Integration and Wellbeing in its proposed 2019/20 budget. Over recent years it has made significant financial savings and undergone a shift toward more services commissioned from the independent sector, becoming more of a facilitator than a provider of care. This is aimed at delivering more efficient, services of a high quality in order to improve outcomes.

Local government funding consists of several funding streams, including: central government grants, the Business Rates Retention Scheme and council tax. Expenditure on adult social care is at the discretion of local authorities in order to meet different levels of need though some additional sources of adult social care funding have been introduced in recent years:

- The adult social care 'precept' is a levy that local authorities that deliver adult social care services are able to charge on Council Tax bills to assist them to address the financial pressures on adult social care services. Stoke-on-Trent City Council has placed an additional 1% precept on Council Tax bills for 2019/20 to help fund adult social services. Staffordshire County Council has not included an adult social care precept to 2019/20

Table 4.10

Adult social care accommodation in 2018

	EXTRA CARE FACILITIES	EXTRA CARE UNITS	RESIDENTIAL CARE HOMES	NURSING HOMES	NUMBER OF CARE HOMES	RESIDENTIAL CARE BEDS	NURSING BEDS	NUMBER OF CARE BEDS
Cannock Chase	3	187	15	9	24	269	409	678
East Staffordshire	1	96	33	13	46	539	607	1,146
Lichfield	1	135	17	11	28	344	641	985
Newcastle-under-Lyme	4	188	31	7	38	629	482	1,111
South Staffordshire	5	289	19	13	32	445	731	1,176
Stafford	3	193	30	13	43	586	684	1,270
Staffordshire Moorlands	1	88	17	11	28	299	596	895
Tamworth	1	68	11	3	14	256	146	402
STAFFORDSHIRE	19	1,244	173	80	253	3,367	4,296	7,663

Source: Staffordshire County Council (Health & Care Staffordshire)
Figures are as at July 2018 for residential and nursing beds, and September 2018 for extra care units.

on Council tax bills following a combined 6% rise in the previous two years. In future years the latest Medium Term Financial Strategy for Staffordshire indicates that the adult social care precept is assumed to increase at 2% per year.

- The Better Care Fund (BCF) was introduced to support the integration of health and social care services so that people could better manage their own health and wellbeing and live independently in their communities for as long as possible, while also providing improved, more efficient services. The BCF encourages integration by requiring Clinical Commissioning Groups and local authorities to enter into pooled budgets arrangements and agree a joint spending plan. The Staffordshire BCF Plan for 2017-19 was approved by Cabinet in February 2017 and had a combined budget of £85.6m for 17/18 and £93m for 18/19.

HEADLINES

- According to [Table 4.10](#) the greatest provision of care homes as a proportion of the population aged 65 and over is in East Staffordshire and Stafford. This is also the case when looking at the greatest number of care beds.
- When looking at the projected requirements up until 2038, South Staffordshire (1,720) and Lichfield (1,594) have the greatest need, resulting in the largest deficit in the number of care beds based on the current capacity. In the case of Lichfield, demand is driven by the need for more nursing beds ([Table 4.11](#)).

- Comparison of the current provision and future demand tables show that the largest relative increases in demand are in Lichfield, South Staffordshire and Staffordshire Moorlands. Much of this growth is being driven by an increasing number and proportion of the population who are aged 65 years and over.
- It should be noted that local demand for care services will vary based on the overall size of the population and specific population care needs, the affordability, quality and location of existing services. This is covered in more detail within Staffordshire County Council's market position statements and associated intelligence documents.

COSTS AND FUNDING

Based upon the SIP Project Schedule and theoretical benchmark modelling where no tangible projects have been identified, the following costs and funding have been identified:

Cost = £458,740,000

Estimated Funding Gap = £344,050,000

Table 4.11

Adult social care need - projected to 2038

	EXTRA CARE UNITS	RESIDENTIAL CARE BEDS (18-64)	NURSING BEDS (18-64)	RESIDENTIAL CARE BEDS (65+)	NURSING BEDS (65+)	TOTAL RESIDENTIAL CARE BEDS	TOTAL NURSING BEDS	NUMBER OF CARE BEDS	ADDITIONAL EXTRA CARE UNITS REQUIRED	ADDITIONAL RESIDENTIAL CARE BEDS REQUIRED	ADDITIONAL NURSING BEDS REQUIRED
Cannock Chase	204	40	13	425	592	465	605	1,070	17	196	196
East Staffordshire	265	161	61	636	733	798	794	1,591	169	259	187
Lichfield	318	60	49	506	1,259	566	1,307	1,874	183	222	666
Newcastle-under-Lyme	242	45	46	735	486	779	532	1,311	54	150	50
South Staffordshire	382	19	70	891	1,077	910	1,147	2,057	93	465	416
Stafford	337	96	9	890	749	986	758	1,744	144	400	74
Staffordshire Moorlands	251	53	59	593	758	645	817	1,462	163	346	221
Tamworth	112	12	29	337	263	349	292	641	44	93	146
STAFFORDSHIRE	2,111	483	339	5,041	5,838	5,525	6,176	11,701	867	2,158	1,880
Stoke-on-Trent	-	-	-	-	-	-	-	-	277	320	202
STAFFORDSHIRE & STOKE-ON-TRENT									1,444	2,478	2,082

Source: Staffordshire County Council (Health & Care Staffordshire)
Note: Stoke-on-Trent estimated requirements come from the theoretical model



4.4 EMERGENCY SERVICES



AMBULANCE SERVICES

West Midlands Ambulance Service NHS Foundation Trust (WMASFT) is one of ten ambulance trusts working across England. The trust is currently the best-performing ambulance service in the NHS, being graded Outstanding by the Care Quality Commission (CQC).

WMASFT operate from 15 new fleet preparation hubs across the region and a number of single ambulance and larger Community Ambulance Stations. In Staffordshire & Stoke-on-Trent there are three fleet preparation hubs at Stoke-on-Trent, Tollgate (Stafford) and Lichfield and four Community Ambulance Stations located at Cheadle, Leek Hospital, Uttoxeter and Biddulph Fire Station. The number of Community Ambulance Stations has recently decreased from six in Staffordshire & Stoke-on-Trent following closures at Burton and Tamworth in March 2019.



FIRE SERVICES

Staffordshire Fire and Rescue Service (SFRS) provide a 24 hour emergency response capability for the county ranging from traditional fire appliances to specialist vehicles, equipment and teams. The Service also deliver a broad range of community safety initiatives, older persons and youth engagement and road safety education alongside business support, fire protection and enforcement activities. The Service is made up of three main areas covering the county: the Northern Service Delivery Group which covers Stoke-on-Trent, Staffordshire Moorlands and Newcastle-under-Lyme; the Eastern Service Delivery Group covering Tamworth, Lichfield and East Staffordshire; and the Western Service Delivery Group covering Stafford, South Staffordshire and Cannock.

SFRS has 33 fire stations and a Headquarters site within its property portfolio, also including a joint transport and engineering facility alongside Staffordshire Police. Twenty-three of these are on-call stations operating a retained duty system, two are day duty stations, and eight are whole-time 24-hour shift stations. All of the stations provide a level of community resource; however 24 are specifically classed as community fire stations offering a broader range of additional opportunities for community use and shared facilities for partners. The service currently employs around 800 staff including full time, on-call and support staff and has a growing team of volunteers who are integral to SFRS service delivery.

Since August 2018, the Staffordshire Police, Fire and Crime Commissioner has become responsible for the governance of Staffordshire Fire & Rescue Service. Priorities for the fire service include greater collaboration with partners to deliver better outcomes for the communities with a particular focus across Police and Fire and Rescue services to improve public safety, especially in prevention and in emergency response through exploring opportunities for joined-up service delivery models across Police, Fire and Rescue and wider public sector agencies.



POLICE SERVICES

Staffordshire & Stoke-on-Trent is policed by Staffordshire Police, with their headquarters located in Stafford.

Staffordshire Police currently has 18 police stations. Neighbourhood officers and Police Community Support Officers work from all of these stations with response officers based at three of the stations (Hanley, Cannock and Burton police stations). Eleven of the stations are staffed enquiry offices where staff are available to speak directly to members of the public during opening hours. Fifteen police stations in total have a free outside public telephone facility where members can speak directly to a member of police staff outside station opening hours.

The Police and Crime Commissioner's (PCC) Safer, Fairer, United Communities Strategy 2017 – 2020 included a priority, to build a modern police service, redeveloping the way the service operates. A key activity highlighted under this priority is the consolidation of Staffordshire Police's estate to reflect the requirements of the force's new Operating Model. This includes a plan for more accommodation sharing with Staffordshire Fire and Rescue Service.

Table 4.12

Emergency Service Existing Provision

	POLICE STATIONS	FIRE STATIONS	AMBULANCE STATIONS*
Cannock Chase	2	2	-
East Staffordshire	2	5	1
Lichfield	1	2	1
Newcastle-under-Lyme	2	3	-
South Staffordshire	2	5	-
Stafford	2	5	1
Staffordshire Moorlands	3	5	3
Tamworth	1	2	-
STAFFORDSHIRE	15	29	6
Stoke-on-Trent	3	4	1
STAFFORDSHIRE & STOKE-ON-TRENT	18	33	7

Source: Staffordshire County Council, Staffordshire Police, Staffordshire Fire and Rescue Service, West Midlands Ambulance Service NHS Trust, AECOM Research

* 'Ambulance stations' include fleet preparation hubs and community ambulance stations

EMERGENCY PLANNING

The Civil Contingencies Act 2004 (Amendment of List of Responders) Order 2005 establishes a coherent framework for emergency planning and response ranging from the local to national level.

The emergency services, alongside the local authorities and other organisations are defined as Category 1 responders, the primary responders in an emergency. They are supported by Category 2 responders (mostly utility companies and transport organisations).

In Staffordshire, emergency planning is carried out by the Staffordshire Resilience Forum which consists of twenty four public sector organisations (Emergency Services, all Local Authorities, Health organisations, Highways England and the Environment Agency). These organisations jointly fund the Civil Contingencies Unit (CCU), a small team of specialist planners based at Stafford Fire Station that ensure preparations are in place to support the people of Staffordshire and Stoke-on-Trent in an emergency or major incident.

Consultation with emergency service providers has identified one future infrastructure proposal for emergency services – shared accommodation between the Staffordshire Police and Fire Service. The project is in the early stages of development and the costs involved are not publicly available.

COSTS AND FUNDING

Based upon the SIP Project Schedule and theoretical benchmark modelling where no tangible projects have been identified, the following costs and funding have been identified:

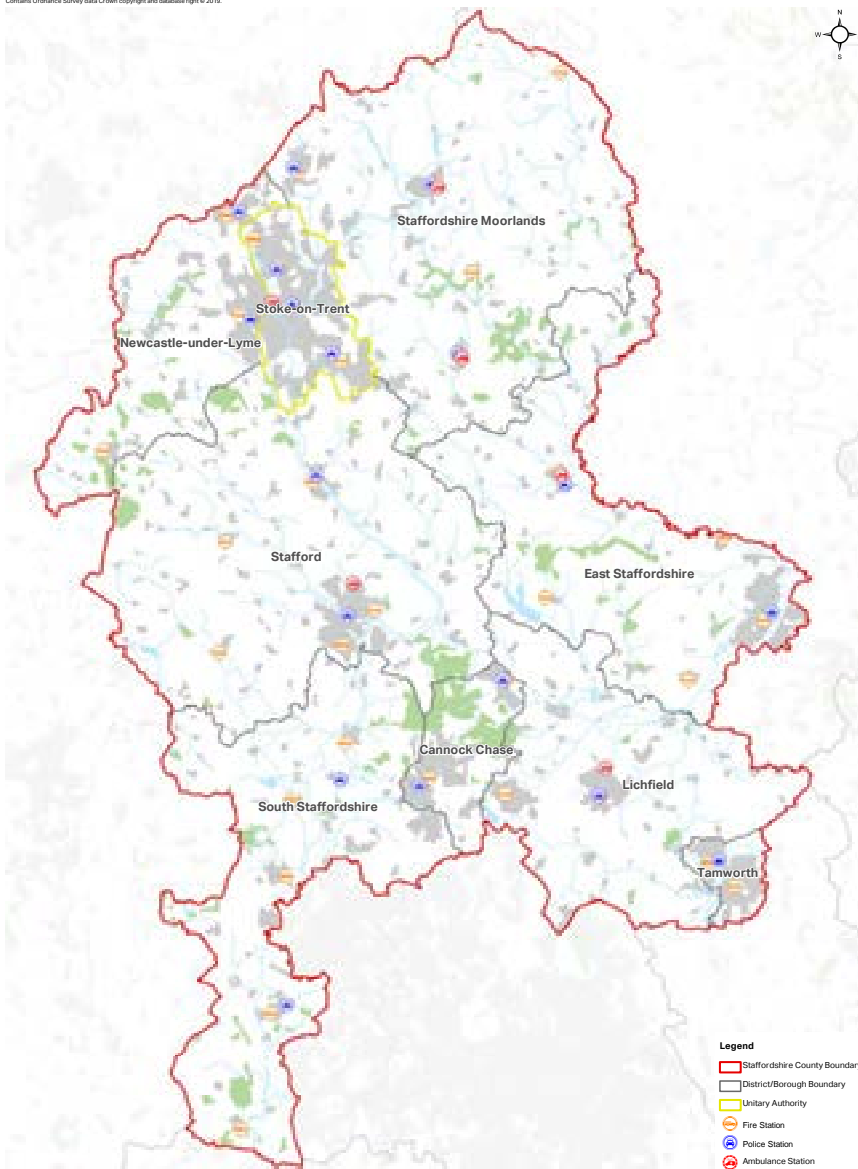
Cost = £49,320,000

Estimated Funding Gap = £49,320,000

Figure 4.13

Emergency services facilities

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Source: Staffordshire County Council, Staffordshire Police, Staffordshire Fire and Rescue Service, West Midlands Ambulance Service NHS Trust Website



4.5 COMMUNITY

LIBRARIES



Staffordshire & Stoke-on-Trent

49

Libraries

CURRENT SITUATION

The Public Libraries and Museums Act 1964, states that local authorities in England have a statutory duty to provide a 'comprehensive and efficient' library service for all people working, living or studying full-time in the area who want to make use of it.

"Libraries are vital community hubs – bringing people together and giving them access to the services and support they need to help them live better".

Libraries contribute to the following outcomes and should therefore be integral to all public service strategies:

- increased reading and literacy
- improved digital access and literacy
- cultural and creative enrichment
- helping everyone achieve their full potential
- healthier and happier lives
- greater prosperity
- stronger, more resilient communities

The delivery of library services is changing given reduced public sector budgets and changes to the way residents engage with public services and access information. Delivery of library services varies across Staffordshire and Stoke-on-Trent. The Library service in Staffordshire offers a mix of Council and community managed and delivered

facilities and a mobile library service which enables isolated and rural communities' access to a library offer.

Staffordshire has taken an ambitious approach to transforming library services and have co-designed, developed and implemented a new delivery model. This was informed by extensive public consultation and enables the delivery of a flexible library service that meets the needs of Staffordshire residents and communities and is sustainable.

In Stoke-on-Trent the Library Service is managed and delivered by the City Council. The Stoke-on-Trent Library Service outlines several forward-looking priorities in its Strategic Statement:

- To be the public face of a brilliant council;
- To place libraries at the heart of the local community;
- To support the cultural and educational life of children and young people; and
- To provide a gateway to employability and empowerment.

EXISTING INFRASTRUCTURE CAPACITY AND ISSUES

There are 43 static libraries in Staffordshire providing a total of 15,962m² of space. Currently, 21 libraries are managed and delivered by Staffordshire County Council and 22 libraries are Community Managed and delivered. During 2017/18 Staffordshire Libraries had 278,869 library members, over 2.8 million physical visits and issued nearly 2.2 million items. Against declining user numbers and issues, in line with national trends, SCC has implemented digital/technological solutions and introduced a Community Managed Library model to deliver savings and ensure that the service remains relevant and accessible. While floorspace has become more consolidated, the service has focused on ensuring that the overall number of facilities has been maintained to provide a comprehensive service to its communities instead of focussing all services into fewer, but larger facilities.

Table 4.13

Library capacity & theoretical future need

		LIBRARY SPACE (SQ.M)	LIBRARY SPACE PER 1000 PERSONS	2038 LIBRARY REQUIREMENT (SQ.M) FOR 30 SQ.M PER 1000 PEOPLE	2018-2038 ADDITIONAL LIBRARY SPACE (SQ.M) REQUIRED
Cannock Chase	6	2,258	22.66	3,134	877
East Staffordshire	3	3,120	26.38	3,878	758
Lichfield	3	1,190	11.50	2,125	935
Newcastle-under-Lyme	8	1,779	13.85	4,127	2,348
South Staffordshire	8	2,209	19.79	3,542	1,333
Stafford	7	1,918	14.25	4,295	2,377
Staffordshire Moorlands	5	1,507	15.35	3,014	1,507
Tamworth	3	1,981	25.54	2,388	407
STAFFORDSHIRE	43	15,962	149.32	25,627	9,665
Stoke-on-Trent	6	6,537	25.55	8,043	1,506
STAFFORDSHIRE & STOKE-ON-TRENT	49	22,500	174.88	33,670	11,171

Source: Source: SCC; ONS Local Authority Level Population Estimates; ONS Population projections and AECOM calculations.

In Stoke-on-Trent there are 6 operational libraries providing a total of 6,537m² of floorspace. Stoke-on-Trent City Council has been proactive in its management of the library service, having reduced hours at two of its libraries (to 4 and 5 days a week rather than 6) to keep them open and adapting to users' changing requirements. It currently sees a large demand for computers, users accessing online training and work clubs and the increasing utilisation of its libraries by community and voluntary groups.

INFRASTRUCTURE REQUIRED TO SUPPORT GROWTH

A further five libraries in Staffordshire will transfer to community management during 2019. As a result there will be 27 Community Managed Libraries in Staffordshire. This is in addition to plans to pilot self-service at up to two libraries and reassess the viability of the current mobile library service across Staffordshire.

In Stoke-on-Trent, Tunstall Library will be relocated from the nearby Victoria Institute, to the Town Hall along with a children's centre. This is expected to be completed by mid-2020. This is part of a £5.7 million plan for the revamp of both Tunstall and Longton Town Halls .

Anecdotal evidence suggests the need for refurbishment and modernisation of the main library in Hanley over the forecast period. This facility currently houses back office services and the Stoke-on-Trent archives over 6 floors and could utilise the space at its disposal more effectively.

Tamworth and Perton libraries will require either relocation or investment over the forecast period to ensure the space available is better utilised and a modern library service is provided.

KEY FINDINGS

Analysis of library provision identifies the need for 13,237m² of additional provision based on population growth if the industry standard benchmark of 30m² per 1000 population is to be reached. However, across the Staffordshire Library Service, the priority is to ensure a modern flexible library offer and to not necessarily increase the number of library buildings unless there is a revenue budget to support the effective delivery of the library offer.

It is important to recognise the overall decline in the traditional use of library services, which is seen both locally and nationally, and the changing nature in which people access information and learning. Wi-Fi and power sockets for customer use within library buildings are essential to enable and widen access to online information and digital resources. Increasingly library customers access the library offer remotely which requires continued investment in digital technology and online resources.

Possibilities exist therefore to deliver library services which meet users' requirements against budgetary constraints such as through the innovative shared use of multi-functional spaces and online platforms which already operate within Staffordshire and Stoke-on-Trent.

While floorspace may become more consolidated, the intention is for this to be through relocation or colocation and not through library closures. The Councils are both striving to ensure all current facilities remain part of their statutory provision and continue to adapt and improve

upon the current service to support the growing population of local districts in future. In the rural areas of Staffordshire it is important to ensure that library services are well spread to serve the community comprehensively, instead of focussing all services into fewer, but larger facilities.

COSTS AND FUNDING

Based upon the SIP Project Schedule and theoretical benchmark modelling where no tangible projects have been identified, the following costs and funding have been identified:

Cost = £9,810,000

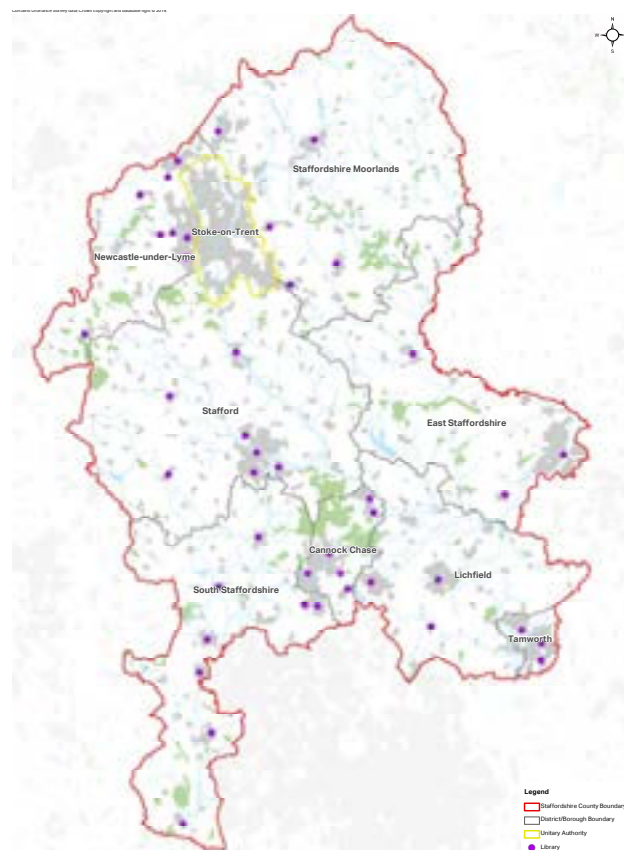
Estimated Funding Gap = £9,810,000

FUTURE REQUIREMENTS TO MEET GROWTH TO 2038

 **Staffordshire & Stoke-on-Trent**
5,989 sqm

Whilst analysis undertaken for the SIP identifies the need for 5,989 sq.m of additional provision, it is important to recognise the changing nature of library service provision and possibilities for delivering these requirements

Figure 4.14
Library facilities



Source: Staffordshire County Council, Stoke-on-Trent City Council

COMMUNITY AND YOUTH



Staffordshire
10
Total Youth
Centres

Staffordshire
48
Total Community
Centres

CURRENT SITUATION

In Staffordshire the youth service is led by the Staffordshire Council of Voluntary Youth Services (SCVYS), a voluntary service supporting children, young people and families. SCVYS was a major partner in mitigating the potential negative implications of the closure of the local authority youth service in 2014. It is supported by a partner organisation Support Staffordshire which works with organisations in the wider community. Both SCVYS and Support Staffordshire act as an organisational structure for the many voluntary-led organisations across the county. Together these support the core youth and community services within Staffordshire.

EXISTING INFRASTRUCTURE CAPACITY AND ISSUES

In Staffordshire the youth service is led by the voluntary sector however the County Council retains ownership of a reduced number of physical Youth Centres. It aims to maximise utilisation of these assets by other users, and also utilises other buildings where Youth Centres are not available. Retaining some physical assets is important as youth functions are sometimes incompatible with other community uses.

Across Staffordshire there are 10 dedicated centres that offer 'youth focused activities'. Dedicated provision is particularly strong in Cannock Chase where there are 3 dedicated Youth Centres. However it should be noted that youth services are closely tied to community centres, of which there are a further 48 across Staffordshire with strong provision in Stafford Borough, Cannock Chase and East Staffordshire. Community centres are often multi-functional spaces rather than specific community or youth hubs. In addition to these centres there exists a network of village halls, social clubs and other organisations that provide facilities to support community and youth services delivered by the voluntary sector.

Since the shift to the voluntary sector, youth engagement has risen across the County, from 19,248 children and young people regularly participating in positive activities in 2013/14 to 27,658 children and young people regularly participating in positive activities in 2017/18.

INFRASTRUCTURE REQUIRED TO SUPPORT GROWTH

- Through its contract with SCC, SCVYS is focused on enabling voluntary groups to become stronger, to operate more safely and sustainably and to enhance the quality of local youth provision through its free support services to the sector.
- With many areas of Staffordshire being rural in nature, there is a notable challenge in delivering services due to low population density and more limited transport connectivity. This makes many areas within the County unsuitable for Youth Hubs/Zones and there is the requirement for a broader network of smaller centres.

Table 4.14

Community facility capacity & theoretical future need

	YOUTH CENTRES			COMMUNITY CENTRES		
	NUMBER	CENTRES PER 1,000 YOUNG PEOPLE (AGED 13-19)	ADDITIONAL YOUTH FACILITIES 2018-2038	NUMBER	CENTRES PER 10,000 PEOPLE	ADDITIONAL COMMUNITY FACILITY SPACE (SQ.M)
Cannock Chase	3	0.41	1.0	8	0.80	884
East Staffordshire	1	0.11	1.7	8	0.68	1,578
Lichfield	2	0.27	2.5	4	0.58	2,240
Newcastle-under-Lyme	2	0.20	2.0	6	0.47	1,624
South Staffordshire	0	0.00	1.5	5	0.45	1,459
Stafford	1	0.10	1.5	14	1.04	1,350
Staffordshire Moorlands	0	0.00	1.0	3	0.31	963
Tamworth	1	0.16	0.6	0	0.00	
STAFFORDSHIRE	10		12	48		10,612
Stoke-on-Trent	-	-	3.1	-	-	2,365
STAFFORDSHIRE & STOKE-ON-TRENT			15			12,977

Source: Staffordshire County Council, ONS Local Authority Level Population Estimates; ONS Population Projections and AECOM calculations

- Rather than facilities, the focus for the Youth Services is for funding to be maintained and filtered down to the voluntary sector to deliver an effective, cost efficient service within the community. Traditional sources of local funding from local authorities and the NHS remain under sustained pressure which continues to impact and limit wider investment in community and youth services.

COSTS AND FUNDING

Based upon the SIP Project Schedule and theoretical benchmark modelling where no tangible projects have been identified, the following costs and funding have been identified:

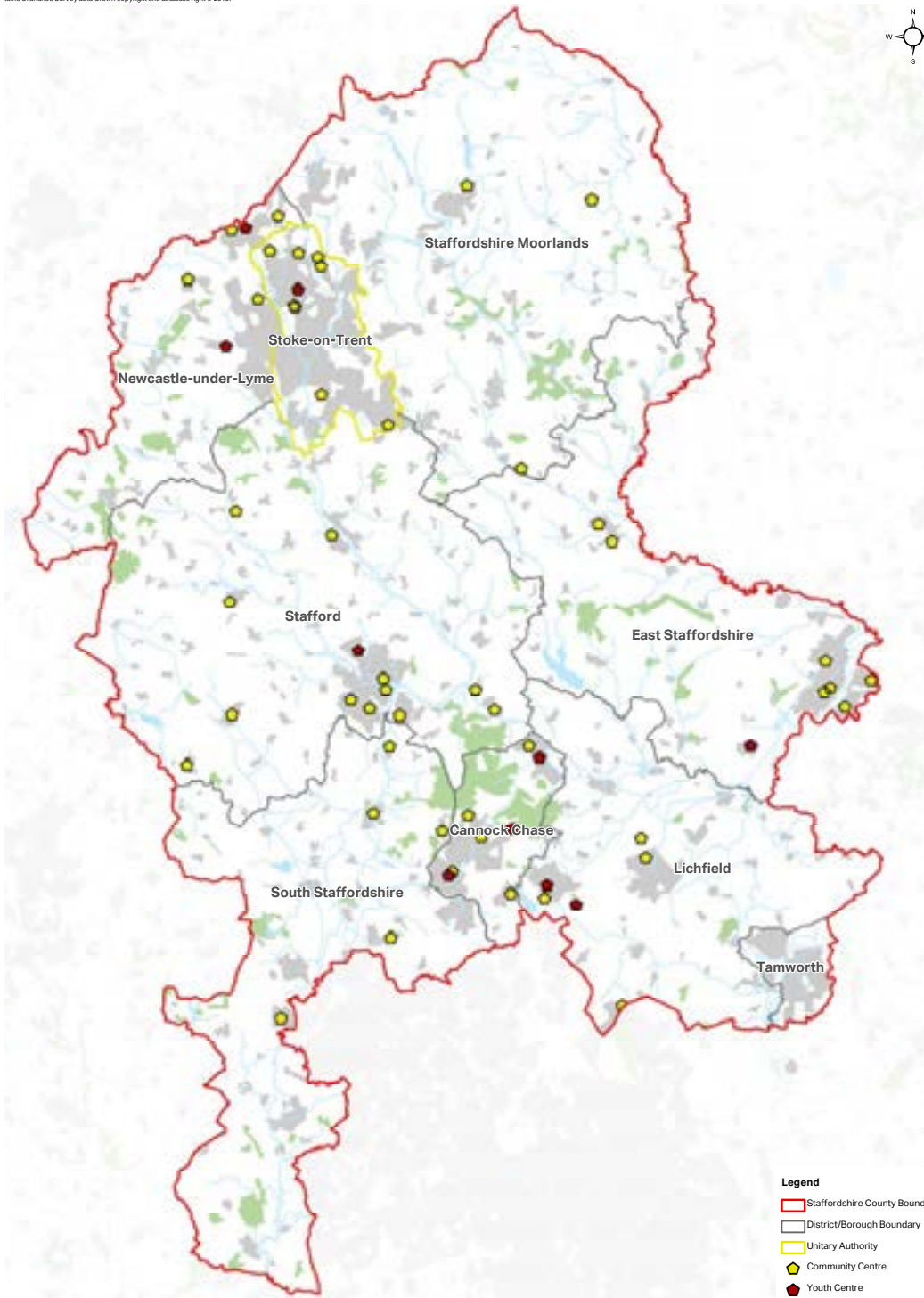
Cost = £27,160,000

Estimated Funding Gap = £27,160,000

Figure 4.15

Community Facility provision

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Source: Staffordshire County Council, Stoke-on-Trent City Council

INDOOR SPORTS FACILITIES



Staffordshire & Stoke-on-Trent
83
Total Number of Swimming Pools

Staffordshire & Stoke-on-Trent
164
Total Number of Sports Halls

CURRENT SITUATION

Indoor sport facilities comprise both public and private facilities. Public facilities are Council-funded, though their management and operation is outsourced by Lichfield; Tamworth; Staffordshire Moorlands; East Staffordshire, Stafford and Cannock Chase Councils.

Sport Across Staffordshire and Stoke-on-Trent (SASSOT) is a network of local agencies committed to working together to increase the number of people taking part in physical activity and sport. It is part of an England-wide network of 43 County Sports Partnerships (CSPs) and is funded by national and local partners including Sport England, local authorities and Universities to promote physical activity and sport across the sub-region. SASSOT takes a place-based approach to achieving its mission to “create active places and healthy lives through physical activity and sport” – a key aspect of which is attracting investment into sport and physical activity.

EXISTING INFRASTRUCTURE CAPACITY AND ISSUES

- Lichfield and Staffordshire Moorlands are the top performers in terms of provision per 10,000 people. Several sports have considerably above average provision including important facilities such as sports halls and swimming pools.
- Strengths in provision vary within Districts. For example Tamworth has the greatest relative provision of health

and fitness suites yet lags behind the average in other areas such as sports halls.

- East Staffordshire and Cannock Chase are the areas which suffer from the lowest provision with several below average categories each including health and fitness suites and sports halls.
- Newcastle-under-Lyme has below average provision of health and fitness suites, swimming pools and squash courts. This may prove an issue looking forward as the District has the highest projected population growth by 2038 of any area (7.9%). East Staffordshire has the next highest projected growth (5.8%) and given this area already lacks provision this may experience issues in the coming years.

INFRASTRUCTURE REQUIRED TO SUPPORT GROWTH

The identification of required investments in indoor sports provision is informed by the sports facility evidence base across Staffordshire and Stoke-on-Trent – predominantly the Built Facilities Strategies. These documents highlight a number of priority projects for indoor facilities across Staffordshire and Stoke-on-Trent:

- Having closed in 2017, the dry-side facilities at Kidsgrove Sports Centre are expected to be re-opened following the transfer of ownership and funding contribution from Staffordshire County Council to Newcastle Borough Council.
- Refurbishment and modernisation are required at South Moorlands Leisure Centre and the pool provision at Brough Park Leisure Centre in Staffordshire Moorlands.
- There is a need to increase the amount of accessible water space in the Boroughs of Tamworth and Newcastle-under-Lyme to meet current and future demand.

Table 4.15

Indoor sport facility provision per 10,000 people

	HEALTH AND FITNESS SUITE	INDOOR BOWLS	INDOOR TENNIS CENTRE	SKI SLOPES	SPORTS HALL	SQUASH COURTS	SWIMMING POOL
Cannock Chase	0.71	0.10	0.00	0.00	1.32	0.20	0.71
East Staffordshire	0.51	0.00	0.00	0.00	1.02	0.68	0.68
Lichfield	1.36	0.00	0.00	0.00	2.23	0.97	1.26
Newcastle-under-Lyme	0.77	0.00	0.00	0.08	1.93	0.62	0.70
South Staffordshire	1.26	0.00	0.00	0.00	0.99	0.99	0.72
Stafford	1.19	0.00	0.15	0.00	1.34	0.74	0.59
Staffordshire Moorlands	1.22	0.00	0.10	0.00	2.34	1.12	0.61
Tamworth	1.56	0.13	0.00	0.13	1.04	0.00	0.78
STAFFORDSHIRE	1.05	0.02	0.03	0.02	1.53	0.69	0.75
Stoke-on-Trent	1.06	0.00	0.00	0.04	1.21	0.43	0.70
STAFFORDSHIRE & STROKE-ON-TRENT	1.05	0.02	0.03	0.03	1.46	0.63	0.74

Source: Sport Across Staffordshire: A Sports Facilities Framework (draft report) December 2014; Sport England Active Places Database 2018; AECOM calculations. Green shading illustrates if the type of sports facility is over provided relative to the overall level of provision within Staffordshire and Stoke-on-Trent. It should be noted that this is not an indication of the adequacy or quality of provision of indoor sport facilities in each locality.

- In East Staffordshire some facilities are operating at 100% of their capacity and investment in sports hall capacity is required.
- Potential expansion of existing facilities at a number of sports halls across Lichfield that are already at or over-capacity.
- The Tamworth Joint Indoor and Outdoor Sports Strategy identifies the need for a new community leisure centre in Tamworth including a 25m swimming pool and 4 court sports hall.

COSTS AND FUNDING

Based upon the SIP Project Schedule and theoretical benchmark modelling where no tangible projects have been identified, the following costs and funding have been identified:

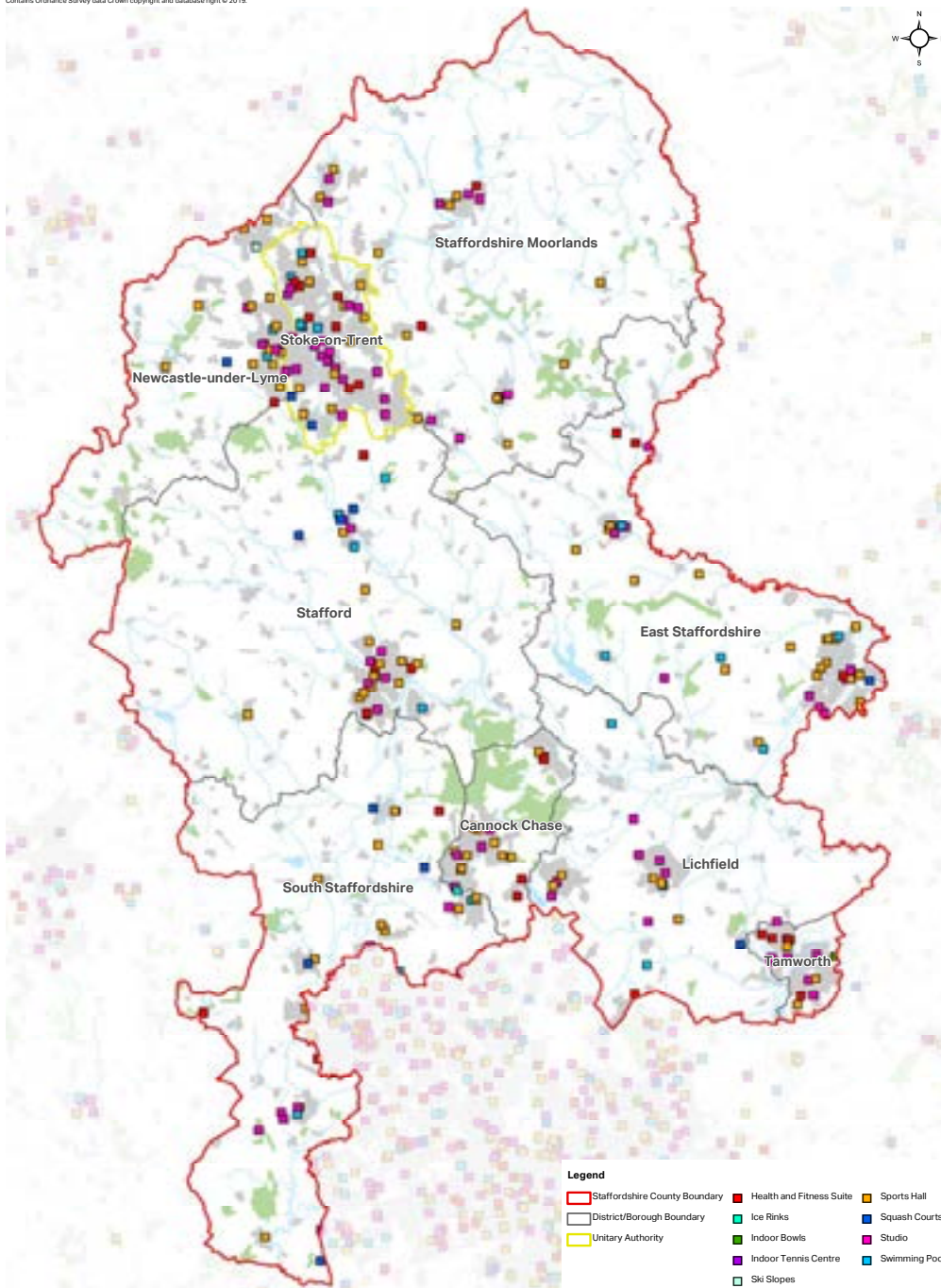
Cost = £45,290,000

Estimated Funding Gap = £45,290,000

Figure 4.16

Indoor Sports provision

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Source: Source: Sport Across Staffordshire: A Sports Facilities Framework (draft report) December 2014; Sport England Active Places Database 2018;

OUTDOOR SPORTS & RECREATION



Outdoor Sports & Recreation



Children's Play Space

CURRENT SITUATION

There are a variety of outdoor sports facilities across Staffordshire & Stoke-on-Trent. Like indoor sports, these facilities and spaces are owned and operated by a number of public and private organisations, including the individual Councils.

EXISTING INFRASTRUCTURE CAPACITY AND ISSUES

- Lichfield again performs very strongly with above average provision for all facilities except athletics. Lichfield is strong for both indoor and outdoor sports facilities.
- East Staffordshire also performs well for outdoor facilities having five of six above average provision levels. In this case East Staffordshire contrasts its weak provision of indoor facilities.
- Newcastle-under-Lyme shows relatively average levels of outdoor provision. As previously stated this District is expecting the greatest population growth of the Staffordshire Districts by 2038 hence this provision is likely to lack capacity in a scenario of greater population.
- Tamworth is the only district with projected negative population growth (-1.5%) which may help to limit

Table 4.16

Outdoor sports and recreation facilities per 10,000 people

	ARTIFICIAL GRASS PITCH	ATHLETICS TRACKS	CYCLING	GOLF	GRASS PITCHES	TENNIS COURTS
Cannock Chase	0.30	0.00	0.10	0.20	10.33	2.13
East Staffordshire	0.59	0.17	0.00	0.76	17.48	2.54
Lichfield	0.77	0.00	0.10	1.07	19.37	2.32
Newcastle-under-Lyme	0.46	0.08	0.08	0.31	13.29	2.55
South Staffordshire	0.36	0.00	0.09	2.06	18.91	3.68
Stafford	0.37	0.07	0.07	0.67	14.72	2.38
Staffordshire Moorlands	0.81	0.10	0.10	0.51	16.16	1.93
Tamworth	0.39	0.13	0.13	0.00	10.54	0.91
STAFFORDSHIRE	0.51	0.07	0.08	0.72	15.26	2.38
Stoke-on-Trent	1.25	0.04	0.04	0.16	8.30	0.74
STAFFORDSHIRE & STOKE-ON-TRENT	0.67	0.06	0.07	0.59	13.68	2.01

Source: Sport Across Staffordshire: A Sports Facilities Framework (draft report) December 2014; Sport England Active Places Database 2018; AECOM calculations The green shading relates to where the district's provision is greater than the Staffordshire & Stoke-on-Trent average.

the negative impact of poor provision of outdoor sports facilities and average provision of indoor facilities although plans for growth, including within adjacent areas will affect this.

- Stoke-on-Trent has weak provision of outdoor facilities. The City has below average provision across four of six categories. Tamworth and Cannock Chase also perform weakly, having a number of below average provision levels.

INFRASTRUCTURE REQUIRED TO SUPPORT GROWTH

- Additional artificial grass pitch (AGP) provision is needed in Stoke-on-Trent, specifically in the North and South area of the City as well as the provision of rugby-compliant AGP. The Playing Pitch Strategy also highlights the need to reinstate unused sports pitch sites that offer strategic potential including Normacot Grange, Sneyd Cricket Club, Longton High School, Lysander Road (Edensor High School site) and Norwich Road (Mitchell High School site).
- Current and future supply of football pitch provision can sufficiently accommodate demand in Cannock Chase across adult, mini 7v7 and mini 5v5 pitch, with a current shortfall for both youth 11v11 and youth 9v9 pitches. When accounting for future demand shortfalls are exacerbated on youth 11v11 and youth 9v9 pitches.
- Roe Lane Playing Fields is identified as a Strategic Site in Newcastle-under-Lyme. Requires investment to maximise use and develop as a central venue for mini football. Shortfall of AGPs across the Borough.
- Stafford Borough Green Infrastructure, Greenspace and Sport and Recreation Provision Strategy identified the likelihood to need at least ten full size ATPs: six or seven for football and the present three for hockey over the 2013-2023 period.

- Shortfall of three full sized 3G pitches across Staffordshire Moorlands.
- The development of additional AGP capacity in Tamworth with potential options including Wilnecote High School, Anker Valley and Bolehall Swifts.
- The East Staffordshire Outdoor Sport Delivery & Investment Plan identified the need for, as a minimum, two new 'community sports hub' sites, one in Burton and one in Uttoxeter.

COSTS AND FUNDING

Based upon the SIP Project Schedule and theoretical benchmark modelling where no tangible projects have been identified, the following costs and funding have been identified:

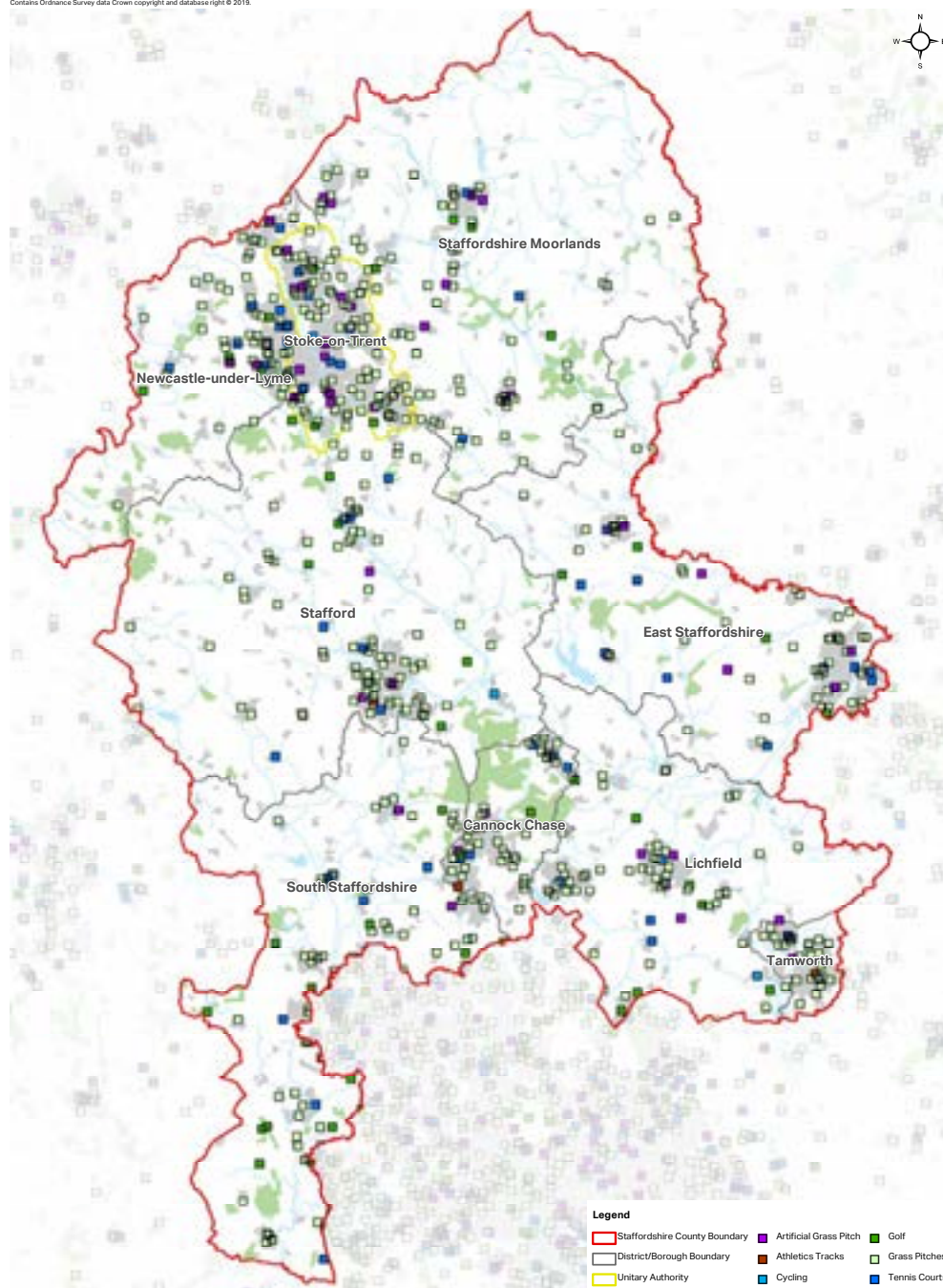
Cost = £136,640,000

Estimated Funding Gap = £128,680,00

Figure 4.17

Outdoor sports and recreation

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Source: Sport Across Staffordshire: A Sports Facilities Framework (draft report) December 2014; Sport England Active Places Database 2018;

Note - Country Parks included within Green Infrastructure



4.6 GREEN INFRASTRUCTURE

GREEN INFRASTRUCTURE



Green Infrastructure

GENERAL OVERVIEW

Natural England’s Green Infrastructure Guidance states that green infrastructure is a “strategically planned and delivered network comprising of the broadest range of high-quality greenspaces and other environmental features”. It includes: parks and gardens, amenity greenspace, natural and semi-natural urban greenspaces, green corridors, spaces for agriculture (such as allotments), as well as cemeteries and churchyards. Green infrastructure can also include waterbodies such as ponds, lakes, rivers, canals and reservoirs, which are also sometimes known as blue infrastructure. Green infrastructure spaces are multifunctional and can deliver a series of environmental, social and economic benefits. These include encouraging physical activity, healthy lifestyles, enhancing mental wellbeing, helping to alleviate flood risk, improve water and air quality as well as encouraging inward investment and local economic regeneration.

The government introduced ‘A Green Future: Our 25 Year Plan to Improve the Environment’ in 2018 which aims to deliver cleaner air and water in the UK’s cities and rural landscapes, protect threatened species and provide richer wildlife habitats. It calls for an approach to agriculture, forestry, land use and fishing that puts the environment first. The strategy seeks to connect people with the environment to improve health and wellbeing by, amongst other things, creating more green infrastructure. Some of the actions associated with the strategy seek to produce new standards for green infrastructure along with supporting local authorities to assess green infrastructure provision against these new standards.

The following green infrastructure section looks at open space, natural greenspace and strategic greenspace. Open space describes a more formally managed area of greenspace, and includes: parks and gardens, amenity greenspace, community gardens, allotments, and cemeteries and churchyards. Natural greenspace is concerned with sites which have natural character and primarily serve an ecological function, including: natural and semi-natural greenspace, protected habitats, and any other habitat and sensitive areas.

Natural greenspace is concerned with sites which have natural character and primarily serve an ecological function, including: natural and semi-natural greenspace, protected habitats, and any other habitat and sensitive areas.

Strategic greenspace looks at the larger, landscape-scale green infrastructure in and across the county, which

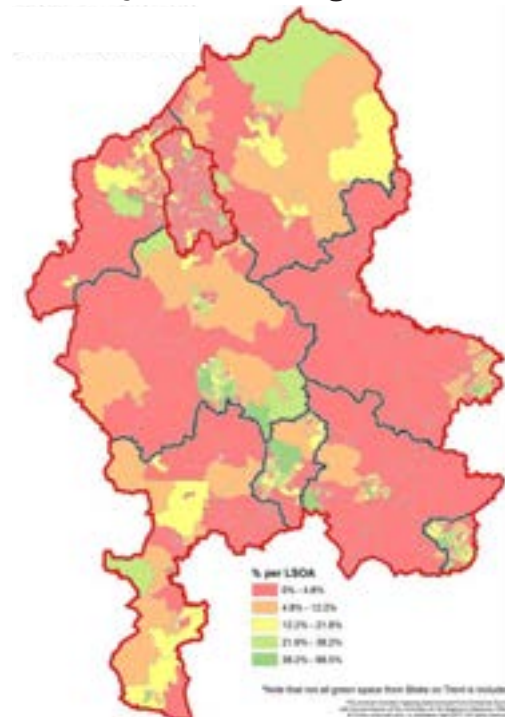
includes: Areas of Outstanding Natural Beauty (AONBs), National Parks, regional parks, the National Forest, living landscape areas, green and blue corridors and the green belt. While these categories are independent for this report to assess greenspaces according to different scales and purpose, the multi-functionality and flexibility of these spaces means there is often overlap between them. This report draws on existing Green Infrastructure Plans and Open Space Studies within Staffordshire & Stoke-on-Trent.

EXISTING INFRASTRUCTURE CAPACITY AND ISSUES

There are significant levels of green infrastructure in Staffordshire & Stoke-on-Trent which collectively provide a network of high quality greenspaces and waterbodies. The county has some sizeable strategic assets such as Cannock Chase AONB to the south including the Cannock Chase Special Area of Conservation, the Peak District National Park to the north and the National Forest to the east. There are a series of country parks, nature reserves and smaller countryside sites. Other greenspaces are associated with the cities and towns of Staffordshire & Stoke-on-Trent.

Waterbodies of note include Aqualate Mere National Nature Reserve (Ramsar site and SSSI) which is the largest natural lake in the region, Blithfield Reservoir and Branston Water Park. Staffordshire has an even network of rivers and streams across the county, the majority of which are tributaries of the Trent and Tame. The main river systems include the rivers Dove, Churnet, Blithe, Sow and Penk. The Trent and Mersey Canal and the river Trent are also important corridors. There is also an extensive public rights of way network with some 4400km of footpaths and bridleways, including many promoted routes such as the Staffordshire Way.

Figure 4.18 Publicly accessible green space



Source: Staffordshire County Council - Rural County team (2015)

Key issues for green infrastructure in Staffordshire & Stoke-on-Trent include:

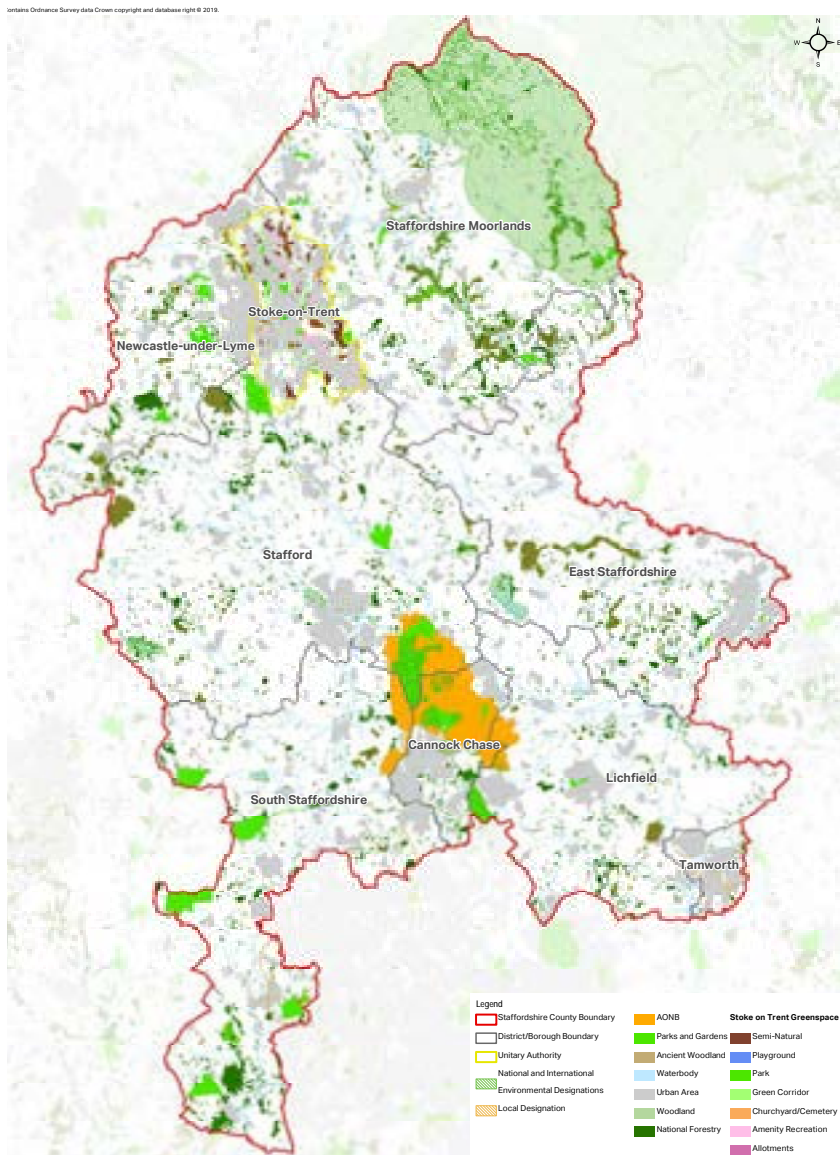
- The sensitive nature of some protected habitats and the potential impact of recreational pressure related to population growth and increasing visitor numbers. This requires active management, mitigation and monitoring or it can become a barrier to development and impact on the environment.
- Accessible greenspace provision is unevenly distributed across the county, with some areas having limited provision.
- Resources to manage green infrastructure are becoming increasingly limited due to financial pressures across many sectors.

A number of organisations within the County have a remit to maintain and improve the green infrastructure across Staffordshire and Stoke-on-Trent including:

- Staffordshire County Council, Stoke-on-Trent City Council and Borough and District Councils;
- Natural England;
- Forestry England;
- Staffordshire Wildlife Trust;
- The National Trust;
- RSPB;
- Peak District National Park Authority;
- National Forest Company;
- Cannock Chase AONB Partnership Unit;
- Cannock Chase SAC Partnership;
- Staffordshire and Wolverhampton Joint Local Access Forum;
- Town and Parish Councils; and

Figure 4.19

Green Space designation



Source: Natural England / Environment Agency, Stoke-on-Trent Green Space Strategy (2018)

Open Space and Recreation

OVERVIEW

Open space refers to green infrastructure with more formal design and purpose, including parks and gardens, amenity greenspace, community gardens, allotments, as well as cemeteries and churchyards.

Unsurprisingly, given its size, Staffordshire & Stoke-on-Trent has a valued and diverse network of open space comprising of varying spaces that have historical, cultural, aesthetic and recreational significance. Urban areas of Staffordshire & Stoke-on-Trent have a rich history of providing green space, from formal public parks created during the late 1800s to significant land reclamation schemes implemented during the 1970s. The wealth of these parks and green spaces forms one of its key strengths.

Staffordshire is predominantly rural in natural and as such is fortunate to be in close proximity to large expanses of publicly accessible open space. These open spaces serve an important function benefiting both local communities in the County along with communities and residents of the neighbouring Local Authorities. In particular, there are six main Country Parks and Gardens throughout Staffordshire & Stoke-on-Trent which provide a range of recreational opportunities.

FUNDING AND DELIVERY

Open space is owned and managed by a variety of agencies across Staffordshire & Stoke-on-Trent, including county, city and district councils, town and parish councils, voluntary sector bodies and private landowners.

The Local Authorities own a variety of country parks, amenity / countryside sites and greenways. Financial

pressures have resulted in most local authorities (and other bodies) reviewing their management arrangements for these sites in order to find more financially sustainable options. These may include a greater focus on income generation from the sites, externalising management to other organisations and encouraging communities to become more involved in management of local sites.

New funding models will be required for new areas of accessible greenspace created through housing development to ensure its sustainability into the future.

EXISTING INFRASTRUCTURE CAPACITY AND ISSUES

Analysing the open space studies of all the districts has allowed an assessment of open space quantity, quality and accessibility to be undertaken against standards set by the local authorities (summarised in [Table 4.17](#)).

According to these respective studies against the various set standards the following is evident:

- For Natural and semi-natural greenspace there are six country parks in Staffordshire at Cannock Country Park, Chasewater Country Park, Apedale Country Park, Deep Hayes Country Park, Ladderedge Country Park and Baggeridge Country Park.
- There is an adequate quantity of parks and gardens, with a large quantity of provision in South Staffordshire and Newcastle-under-Lyme, but there is more limited provision in Staffordshire Moorlands, Cannock Chase, Tamworth and Stoke-on-Trent. Parks and gardens tend to be of average to good quality.
- There appears to be sufficient quantity of amenity greenspace in the County, particularly in Stafford, South Staffordshire and Lichfield. While the quality of amenity greenspace is generally good this varies considerably

Table 4.17

Open space standards

HECTARES PER 1,000 POP	NATURAL & SEMI-NATURAL	PARKS & GARDENS	AMENITY GREENSPACE	ALLOTMENTS	SOURCE
Cannock Chase	6.20	0.43	0.68	0.057	PPG 17 Cannock Chase Open Space Assessment 2009
East Staffordshire	1.52	1.32	0.68	0.22	East Staffordshire Borough Council PPG17 Open Space, Sport & Recreation Study Open Space Assessment Report June 2009
Lichfield	19.97	-	1.57	0.06	Lichfield District Council Open Space Assessment 2016
Newcastle-under-Lyme	14.00	3.51	1.03	0.11	Newcastle-under-Lyme Open Space Strategy 2017
South Staffordshire	7.38	10.24	1.60	0.12	South Staffordshire Council Open Space Strategy
Stafford	30.44	1.22	10.79	-	Stafford Borough Council Open Space, Sport and Recreation Assessment Update June 2013
Staffordshire Moorlands	5.44	0.14	1.07	0.12	Staffordshire Moorlands District Council Open Space Study Standards Paper October 2017
Tamworth	3.81	0.55	1.36	0.28	Tamworth Recreational Open Space Review 2011
STAFFORDSHIRE	88.8	17.4	18.8	0.7	
Stoke-on-Trent	3.62	0.81	1.20	0.28	Green Space Strategy Final Report November 2018 - City of Stoke-On-Trent
STAFFORDSHIRE & STOKE-ON-TRENT	92.4	18.2	20.0	0.97	

Table 4.17 sets out the quantum per 1000 new population that new development should provide of different open space typologies.

with poorer quality amenity greenspace evident in East Staffordshire and Cannock Chase.

- The provision of allotments and community gardens is more limited in terms of quantity, particularly in Cannock Chase and Lichfield. These spaces generally tend to be well maintained.
- Churchyards and cemeteries serve a primary purpose of burial and so therefore assessing quantity is not appropriate, but the quality of these greenspaces is considered to be good

Table 4.18 sets out, where available, an assessment of the level of provision, accessibility and quality of open space in Staffordshire & Stoke-on-Trent. This analysis scores each Local Authority either against the identified standard or to the assessment provided within local evidence base. A total score has been given by AECOM, whereby Local Authorities that have a cumulative positive score of 3 or more are seen as having a strong level of open space provision/ accessibility, while a local authority that scores 1 has a poor level of open space provision / accessibility. Unfortunately, there are some gaps in the analysis particularly with regard the overall accessibility of open space at a district wide level.

Table 4.18 also sets out the quantity of each type of green space in each district per 1,000 population where this information is available. For natural & semi natural greenspace Stafford, Lichfield and Newcastle-under-Lyme have above average provision. For parks & gardens only, Newcastle-under-Lyme and South Staffordshire have above average quantities. For amenity space only, Stafford district has above average provision. For allotments East Staffordshire, Newcastle-under-Lyme, South Staffordshire, Staffordshire Moorlands and Stoke-on-Trent have above average provision.

Table 4.19 sets out estimated demand for new open space and green infrastructure based on the provision standards set out by each local authority. This is the demand resulting from new development and does not take into consideration the existing or perceived deficiencies where they occur. Based on Local Authority provision standards, new development will generate demand for 3,121ha of additional new green space. Most districts in Staffordshire & Stoke-

on-Trent are already predominately rural but it is important to ensure that new housing developments have access to existing green spaces and new green infrastructure.

Table 4.18

Open space provision in Staffordshire & Stoke-on-Trent

District	Standard	Natural & Semi Natural	Parks & Gardens	Amenity Space	Green Corridors	Allotments, Community Gardens & City Farms	Churches & Cemeteries
Cannock Chase	Existing Quantity of OS (Ha/1000)	6.20	0.43	0.68	0.69	0.057	0.25
	OS Quantity Standard (Ha/1000)	6.20	0.43	0.68	-	0.07	-
	Accessibility Score	-	-	-	-	-	-
	Accessibility Standard	480 metres	740 metres	370 metres	480 metres	3.2 km	-
	Existing Quality of OS	56%	65%	53%	53%	61%	63%
	OS Quality Standard	61%	61%	61%	61%	61%	61%
	Total	2	2	2	1	2	2
East Staffordshire	Existing Quantity of OS (Ha/1000)	1.52	1.32	0.68	-	0.22	0.19
	OS Quantity Standard (Ha/1000)	-	-	-	-	-	-
	Accessibility Score	-	-	-	-	-	-
	Accessibility Standard	8 km	720 metres	-	-	720 metres	-
	Existing Quality of OS	37%	51%	42%	63%	29%	49%
	OS Quality Standard	40%	50%	40%	66%	40%	50%
	Total	1	2	2	1	1	1
Lichfield	Existing Quantity of OS (Ha/1000)	19.97	-	1.57	-	0.06	0.37
	OS Quantity Standard (Ha/1000)	19.97	-	-	-	-	-
	Accessibility Score	-	-	480 metres	-	-	-
	Accessibility Standard	-	-	480 metres	-	-	-
	Existing Quality of OS	-	-	-	-	-	-
	OS Quality Standard	-	-	-	-	-	-
	Total	1	-	1	-	-	-
Newcastle-under-Lyme	Existing Quantity of OS (Ha/1000)	14.00	3.51	1.03	0.37	0.11	-
	OS Quantity Standard (Ha/1000)	3.60	3.10	0.9	-	0.15	-
	Accessibility Score	-	-	-	-	-	-
	Accessibility Standard	600 metres (urban)	400 metres (urban)	220 metres (urban)	-	400 metres (urban)	-
	Existing Quality of OS	-	-	-	-	-	-
	OS Quality Standard	80%	80%	80%	80%	80%	80%
	Total	2	2	2	1	1	-
South Staffordshire	Existing Quantity of OS (Ha/1000)	7.38	10.24	1.60	0.30	0.12	0.26
	OS Quantity Standard (Ha/1000)	-	-	1.60	-	0.25	-
	Accessibility Score	-	-	-	-	-	-
	Accessibility Standard	70%	70%	70%	70%	70%	70%
	Existing Quality of OS	-	-	-	-	70%	70%
	OS Quality Standard	70%	70%	70%	70%	70%	70%
	Total	1	1	2	1	2	2

Source: Local Authority Evidence Base (Open Space Study / Assessment)

Table 4.18 sets out, where available, an assessment of the level of provision, accessibility and quality of open space in Staffordshire & Stoke-on-Trent. This analysis scores each local authority either against the identified standard or to the assessment provided within local evidence base. A total score has been given by AECOM, whereby Local Authorities that have a cumulative positive score of 3 or more are seen as having a strong level of open space provision/accessibility, while a local authority that scores 1 has a poor level of open space provision / accessibility.

District	Standard	Natural & Semi Natural	Parks & Gardens	Amenity Space	Green Corridors	Allotments, Community Gardens & City Farms	Churches & Cemeteries
Stafford	Existing Quantity of OS (Ha/1000)	30.44	1.22	10.79	-	-	3.00
	OS Quantity Standard (Ha/1000)	-	-	-	-	-	-
	Accessibility Score	-	-	-	-	-	-
	Accessibility Standard	300 metres	900 metres	300 metres	-	600 metres	-
	Existing Quality of OS	80%	90%	76%	69%	-	85%
	OS Quality Standard	-	-	-	-	-	-
	Total	1	1	1	1	1	1
Staffordshire Moorlands	Existing Quantity of OS (Ha/1000)	5.44	0.14	1.07	-	0.12	-
	OS Quantity Standard (Ha/1000)	-	0.14	0.60	-	0.10	-
	Accessibility Score	-	-	-	-	-	-
	Accessibility Standard (2009 Study)	720 metres	720 metres	480 metres	-	720 metres	-
	Existing Quality of OS	73%	92%	75%	-	69%	-
	OS Quality Standard (2009 Study)	73%	-	75%	-	69%	-
	Total	2	2	3	-	3	-
Stoke-on-Trent	Existing Quantity of OS (Ha/1000)	3.62	0.81	1.20	1.36	0.28	0.39
	OS Quantity Standard (Ha/1000)	3.00	0.70	0.90	-	0.24	-
	Accessibility Score	-	-	-	-	-	-
	Accessibility Standard	720 metres	710 metres	480m	-	400m	-
	Existing Quality of OS	-	-	-	-	-	-
	OS Quality Standard	80%	80%	80%	80%	80%	80%
	Total	2	2	2	-	2	-
Tamworth	Existing Quantity of OS (Ha/1000)	3.81	0.55	1.36	-	-	0.14
	OS Quantity Standard (Ha/1000)	-	-	-	-	-	-
	Accessibility Score	-	-	-	-	-	-
	Accessibility Standard	600 metres	600 metres	400 metres	-	-	-
	Existing Quality of OS	-	-	-	-	-	-
	OS Quality Standard	-	-	-	-	-	-
	Total	1	1	1	-	-	1

Source: Local Authority Evidence Base (Open Space Study / Assessment)

Table 4.18 sets out, where available, an assessment of the level of provision, accessibility and quality of open space in Staffordshire & Stoke-on-Trent. This analysis scores each local authority either against the identified standard or to the assessment provided within local evidence base. A total score has been given by AECOM, whereby Local Authorities that have a cumulative positive score of 3 or more are seen as having a strong level of open space provision/accessibility, while a local authority that scores 1 has a poor level of open space provision / accessibility.

3	Strong Provision
2	Medium Provision
1	Poor Provision

Table 4.19

Open space requirements up to 2038

DEMAND BY HECTARES	NATURAL & SEMI-NATURAL	PARKS & GARDENS	AMENITY GREENSPACE	ALLOTMENTS	TOTAL REQUIREMENT (HECTARES)
Cannock Chase	84.3	5.8	9.2	0.8	100
East Staffordshire	36.9	32.0	16.5	5.3	91
Lichfield	688.3	35.0	54.1	2.1	780
Newcastle-under-Lyme	349.8	87.7	25.7	2.7	466
South Staffordshire	165.6	229.8	35.9	2.7	434
Stafford	632.1	25.3	224.1	3.5	885
Staffordshire Moorlands	80.6	2.1	15.8	4.1	103
Tamworth	30.2	4.4	10.8	2.2	48
STAFFORDSHIRE	2,068	422	392	24	2,906
Stoke-on-Trent	131.7	29.5	43.7	10.2	215
STAFFORDSHIRE & STOKE-ON-TRENT	2,199	452	436	34	3,121

Figures presented in Table 4.19 above utilise the open space standards presented in Table 4.17 against the forecast population growth of Staffordshire & Stoke-on-Trent. Where no standard is available the average standard for Staffordshire & Stoke-on-Trent as presented in Table 4.17 has been applied as an interim assessment position.

Natural Greenspace

OVERVIEW

Natural greenspace includes natural and semi-natural greenspace, other habitats and sensitive areas, and those which are designated as protected habitats. Designated sites are areas which are recognised as having particular importance for plants, animals, geology or their physical features and are protected from development.

Ecological designations are broken down to include internationally designated sites such as Ramsar sites, Special Areas of Conservation (SACs), and Special Protection Areas (SPAs). These are afforded a higher level of protection than sites designated on a national level or locally-designated sites such as Sites of Special Scientific Interest (SSSIs), National Nature reserves (NNRs), Local Nature Reserves (LNRs), and the non-statutory designations Local Wildlife Sites (LWS). National planning policy indicates that planning policies and decisions should minimise impacts on, and provide net gains for, biodiversity including establishing coherent ecological networks that are more resilient to current and future pressures. Specifically, if significant harm to biodiversity resulting from a development cannot be avoided, adequately mitigated, or, as a last resort, compensated for, then such proposals should be refused.

Staffordshire & Stoke-on-Trent contains numerous UK Biodiversity Action Plan (UK BAP) habitats. In addition, the Staffordshire Biodiversity Action Plan (SBAP) has been in place since 1998 and seeks to deliver UK BAP targets at a local level.

As outlined in [Table 4.21](#), internationally designated Ramsar sites include Aqualate Mere, Betley Mere, Black Firs & Cranberry Bog, Chartley Moss and Cop Mere which are also SSSIs. There are also six SACs within Staffordshire. Nationally and locally designated sites include four NNRs and 57 SSSIs. Other natural greenspace of value include river valleys and floodplains, whilst the Minerals Local Plan is helping to deliver new or enhanced natural greenspaces such as the Central Rivers Initiative along the A38 corridor.

HEADLINES

Based on the assessment of district open space studies, the provision of natural and semi-natural greenspace can be evaluated. The district open space studies give a broad indication of provision and have been carried out at different times and some of these studies are now out of date. There is a good quantity of natural and semi-natural greenspace within Staffordshire & Stoke-on-Trent, with Lichfield and Newcastle-under-Lyme showing significant provision. However, Stafford, East Staffordshire, and Tamworth have poor provision. In terms of the quality of natural and semi-natural greenspace where such information is available

overall provision can be considered good. However, the quality of such spaces in Cannock Chase is average and in East Staffordshire can be considered poor. It should be noted that these assessments take into account natural and semi-natural greenspace which is not designated, and may not take into account some areas of ecological designation as access may be restricted to them for conservation purposes.

Cannock Chase SAC is an important area of heathland, wood pasture and valley mires which requires active management and is being affected by high recreational pressure and atmospheric pollution. Strategic access mitigation, monitoring and management measures have been broadly identified for the site and are funded by developer contributions within a defined 'zone of influence'. Delivery of the measures is overseen by the Cannock Chase SAC Partnership.

The State of Nature Report (2016) found that between 1970 and 2013, 56% of species experienced declines in population in the UK, with 40% showing strong or moderate declines. The report indicates that the UK has lost significantly more nature over the long term than the global average.

For Staffordshire only 30% of SSSIs are in favourable condition, with 70% considered unfavourable. Only 5% of the county's waterbodies are classified as being in good overall status, with 46% classed as either being poor or bad. Loss, fragmentation and degradation have affected most habitat types in Staffordshire. Heathland is a prime example, with around 90% lost over the last 200 years. Remaining heaths are often fragmented into small isolated sites, leaving their associated species vulnerable to local extinction.

The Staffordshire Biodiversity Action Plan sets local targets for habitats across the county, seeking to restore habitats to increase their area, improve their quality for supporting wildlife through positive management, and reconnect them across the landscape. Staffordshire's Local Authorities are developing innovative work on delivering the biodiversity net gain approach through the planning system. Maps of existing habitat are being updated, and opportunities to create, restore and link habitats are being identified as part of this project.

In terms of habitats the Staffordshire Biodiversity Action Plan defines Ecosystem Actions Plans (see [Table 4.20](#)) along with setting out aims for these areas and associated priority habitats. Generally there is a need to increase the extent of priority habitat within action plan areas.

Table 4.20

Priority Habitats

Ecosystems Actions Plans	Priority Habitat	Aims - Priority Habitat
Cannock Chase Heaths	Lowland heathland	Maintain the extent and condition of existing 'favourable' habitat and improve the condition of sites deemed as 'unfavourable'. Increase the extent of lowland heathland - create patches over 30 ha where possible to promote sustainability
Central Farmland	Hedgerows Arable field margins Rivers	Maintain the net extent of hedgerows, the number of individual, isolated hedgerow trees and the number of isolated veteran trees. Achieve favourable condition of 50% of hedgerows and ensure they remain, on average, at least as rich in native woody species and herbaceous hedgerow flora. Restoration of hedgerows - this includes increasing numbers of young trees (1-4 years) and increasing the diversity of the herbaceous hedgerow flora. Achieve a net increase in the length of hedgerows
Churnet Woodlands	Native woodland	Maintain the extent and condition of ancient and non-ancient woodland (native woodland) Initiate the restoration of coniferous or mixed Plantations on Ancient Woodland Sites (PAWS) Creation of broadleaved woodland
Limestone Ecosystem Action Plan (EAP) area	Calcareous grassland	Maintain the extent and condition of existing habitat Restoration of lowland dry acid grassland from semi-improved or neglected grassland Creation of lowland dry acid grassland Maintain the extent and condition of existing 'favourable' habitat and improve the condition of sites deemed as 'unfavourable'
Meres and Mosses	Eutrophic standing water Fens Lowland raised bog	Maintain the extent and condition of known sites Improve the condition of Maer Pool SSSI eutrophic standing water of known conservation importance (Tier 1 sites) to favourable/recovering condition Improve the condition of listed Staffordshire Tier 2 eutrophic standing waters of conservation importance (Aqualate; Betley Mere; Cop Mere) Maintain the extent and condition of existing fen habitat and diversity of fen types (1-8) Restoration of fen habitat Maintain the extent and condition of existing habitat, rehabilitate degraded bog habitat still capable of natural regeneration Restore lowland raised bog habitat on areas of archaic peat to ensure a sustainable hydrological regime and to restore this habitat to its former geographical range as part of a national series.
Moorlands EAP area	Blanket bog Lowland meadows Purple moor grass & rush pasture Upland heathland	Maintain the extent and condition of existing habitat Restoration of blanket bog habitat Restoration of lowland meadows from semi-improved or neglected grassland Creation of lowland meadows from arable or improved grassland Restoration of habitat from semi-improved or neglected grassland Creation of purple moor grass & rush pasture habitat Restoration of lowland dry acid grassland from semi-improved or neglected grassland
Needwood Woods and Parklands	Wood-pasture & parkland	No loss of or significant damage to wood-pasture & parkland sites (Blithfield Hall; Byrkley Park; Hanbury Park; Holly Bush Park; Little Dunstall Farm; Newton Farm; Yoxall Park; Dunstall Hall; Round Hill and Hoar) Place one site of derelict wood-pasture & parkland into restoration Creation of wood-pasture & parkland - preferably extending an existing site
River Gravels	Coastal & floodplain grazing marsh Purple moor grass & rush pasture Lowland meadows	Maintain the extent and condition of existing 'favourable' habitat and improve the condition of sites deemed as 'unfavourable' Increase the extent of lowland heathland - create patches over 30 ha where possible to promote sustainability
Southern Heaths	Lowland heathland	Maintain the extent and condition of existing 'favourable' habitat and improve the condition of sites deemed as 'unfavourable' Increase the extent of lowland heathland - create patches over 30 ha where possible to promote sustainability

Ecosystems Actions Plans	Priority Habitat	Aims - Priority Habitat
Southern Parklands	Wood-pasture & parkland	No loss of or significant damage to wood-pasture & parkland sites (Chillington Hall; Himley Hall; Patshull Park; Ridgehill Wood; Weston Park; Four Ashes Hall; Wrottesley Park) Place one site of derelict wood-pasture & parkland into restoration Creation of wood-pasture & parkland - preferably extending an existing site
Species-rich Farmland	Lowland meadows	Maintain the extent and condition of existing habitat Creation of lowland heathland
	Lowland heathland	Maintain the extent and condition of existing habitat Restoration of lowland meadows from semi-improved or neglected grassland
	Upland heathland	Creation of lowland meadows from arable or improved grassland Restoration of lowland dry acid grassland from semi-improved or neglected grassland
Urban	Lowland meadows	Maintain the extent and condition of existing habitat Restoration of lowland meadows from semi-improved or neglected grassland
	Native woodland	Creation of lowland meadows from arable or improved grassland Maintain the extent and condition of ancient and non-ancient woodland (native woodland)
	Open mosaic on previously developed land	Initiate the restoration of coniferous or mixed PAWS Creation of broadleaved woodland Restoration of habitat by arresting succession of scrub and woodlands
Wooded Quarter	Native woodland	Maintain the extent and condition of ancient and non-ancient woodland (native woodland)
	Wood-pasture & parkland	Initiate the restoration of coniferous or mixed PAWS Creation of broadleaved woodland No loss of or significant damage to known wood-pasture & parkland sites Place 1 site of derelict wood-pasture & parkland into restoration
Rivers, Canals and Streams	Rivers, Canals and Streams	Protecting and improving our watercourses is an important part of achieving sustainable development and is vital for the long term health, wellbeing and prosperity of everyone.

Table 4.21

Wildlife Sites

Site Type	Site Name/Numbers	Responsibility
Ramsar	Aqualate Mere	Various
	Betley Mere	
	Black Firs & Cranberry Bog	
	Chartley Moss	
	Cop Mere	
SACs	Cannock Chase	Various
	Cannock Extension Canal	
	Chartley Moss	
	Mottey Meadows	
	Pasturefields Salt Marsh	
	River Mease	
SSSIs	64 sites	Majority of which are privately owned
NNR	Aqualate Mere	All sites are managed by English Nature with Hulme Quarry reserve owned and managed by Stoke-on-Trent City Council in association with Natural England.
	Chartley Moss	
	Hulme Quarry	
	Mottey Meadows	
Mottey Meadows	All sites are managed by English Nature with Hulme Quarry reserve owned and managed by Stoke-on-Trent City Council in association with Natural England.	

Source: Staffordshire Biodiversity Action Plan (2001) and Natural England

COSTS AND FUNDING

Based upon the SIP Project Schedule and theoretical benchmark modelling where no tangible projects have been identified, the following costs and funding have been identified:

Cost = £392,570,000

Estimated Funding Gap = £335,030,000





4.7 UTILITIES

ENERGY - ELECTRICITY



CURRENT SITUATION

In the UK, National Grid owns, operates and maintains the UK's 400 kV and 275 kV national transmission network. The system then connects to local networks owned by distribution companies.

In Staffordshire & Stoke-on-Trent electricity is supplied via National Grid infrastructure by Western Power Distribution, however demand is measured on a regional basis, not a site specific basis.

Western Power is responsible for 7.9m customers (homes and businesses), 2,481,944 in the West Midlands (as of 2017/18). The networks assets include over 90,000km of overhead lines and 134,000km of underground cables.

Western Power operates the local electricity network at three voltage levels; 133kV, 33kV and 11kV. This is distributed via National Grid network cables; electricity is then distributed around the county via substations.

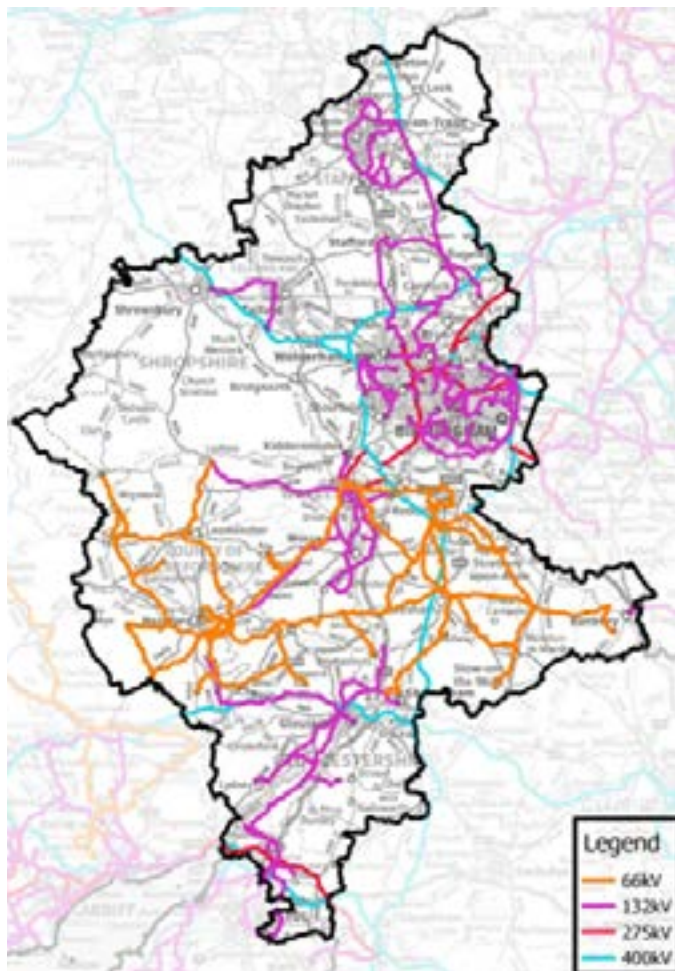


FIGURE 4.20 - NETWORK IN WEST MIDLANDS SHOWING 400KV, 275KV, 132KV AND 66KV NETWORKS

Source: *Shaping Subtransmission to 2030 - Western Power Distribution (2018)*

HEADLINES

There are eight grid 132kV substations serving Staffordshire & Stoke-on-Trent, located at Bushbury, Burslem, Boothem, Stafford, Stagefields Lichfield, Cannock and Burntwood. Each of these is connected to a number of substations (132/33kV) for local distribution via underground and overhead network. There are five of these 132/33kV grid substations at Whitfield, Newcastle, Meaford C, Ketley and Bushbury. The 33kV in turn supports six Primary substations (33/11kV) across Staffordshire at Ketley, Whitfield, Longton, Meaford C, Rugeley and Bushbury.

From primary substation level the 11kV overhead and underground network supports larger industrial applications and feeds distribution substations, transforming voltage down for local network distribution serving domestic and smaller industrial connections.

Western Power forecasts required network reinforcement by 2020 to meet expected load growth, potential development, and uptake of distributed generation. Reinforcement will include new transformers, line reconductoring and cable overlays if the expected growth in demand occurs. Looking further ahead to 2025 and 2030, more reinforcement is likely to be required including additional Super Grid Transformers (SGTs) and new Grid Supply Points (GSP) in some scenarios.

Western Power has identified some areas of the network which would require reinforcement under forecasted demand, generation and storage scenarios. The affected network area is:

- Rugeley GSP SGT capacity.

Given the further requirements identified in the 2025 studies, it is recommended that options are developed for:

- Busbar fault mitigation at Bushbury GSP;
- Meaford C Bulk Supply Point (BSP);
- The wider development of the Cellarhead 132kV network;
- SGT capacity at Rugeley and Willenhall GSPs; and
- Grid Transformer capacity at Rugeley Town BSP.

The above planned investment is based on the most recent 2017 studies. Western Power Distribution have identified that they will be repeating the planning and review exercise every two years and as such will be subject to change.

COSTS AND FUNDING

Based upon theoretical benchmark modelling, the following development connection costs and funding have been identified:

Cost = £122,790,000

Estimated Funding Gap = £122,790,000

ENERGY - GAS



CURRENT SITUATION

National Grid owns, operates and maintains gas infrastructure across the UK. National Grid does not supply gas but provides the conveyance system via a National Transmission System (NTS). The gas supplier in Staffordshire & Stoke-on-Trent is Cadent Gas.

National Grid is also responsible for operating the entire NTS, which transports gas from supply points to the Gas Distribution Networks (GDNs). The GDNs are further split into Local Distribution Zones. National Grid has a duty to extend or improve the NTS, where necessary, to ensure an adequate and effective network for the transportation of gas. Reinforcement projects for Local Distribution Zones (LDZ) are planned on a reactive basis.

Figure 4.21 illustrates the gas distribution network within Staffordshire & Stoke-on-Trent and its wider area.

HFADI INFS



FIGURE 4.21 - WEST MIDLANDS LOCAL DISTRIBUTION ZONES

Source: National Grid Gas 10 Year Statement (2017)

Staffordshire & Stoke-on-Trent’s gas is supplied via one LDZ conveyed by the NTS. New gas infrastructure is upgraded periodically to meet changes in demand. National Grid has suggested that new infrastructure will be required for the connection of new developments on a site-by-site basis, and this will be the responsibility of the gas supplier.

Two high pressure gas lines supply the area which broadly run along a route from the west of Tamworth heading north west west between Lichfield and Burton and then running to the north of Stafford. Low pressure pipe lines then supply local areas with gas.

Peak demand (Figure 4.22) is predicted to fall over the next seven years; however consultation will be required to ensure infrastructure has capacity to deal with localised increases from future development.

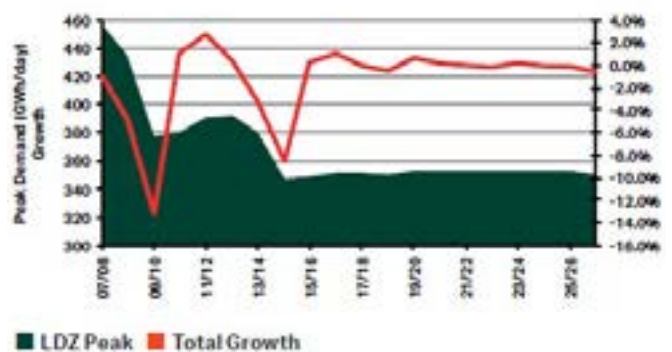


FIGURE 4.22 - WEST MIDLANDS LDZ HISTORICAL & FORECAST 1 IN 20 PEAK GAS DEMANDS

Source: Cadent Gas Long Term Development Plan (2017)

FURTHER REQUIREMENT TO MEET GROWTH TO 2038

Cadent Gas highlights in their Long Term Development Plan (2017) the increase in houses being built in Lichfield over the next few years. They are monitoring the growth annually to ensure enough capacity is built into the system. Cadent Gas has not publicised any other proposals for new gas infrastructure in Staffordshire & Stoke-on-Trent. Therefore there are no known planned gas infrastructure works in Staffordshire & Stoke-on-Trent. However, based on the potential population growth, it is anticipated that demand will increase and reinforcement works may be required.

COSTS AND FUNDING

Based upon theoretical benchmark modelling, the following development connection costs and funding have been identified:

Cost = £30,700,000

Estimated Funding Gap = £30,700,000

ENERGY - RENEWABLES



CURRENT SITUATION

Distribution and supply of electricity in Staffordshire & Stoke-on-Trent is managed by UK National Grid and Western Power Distribution. Renewable energy development will depend largely on the policies and strategies of the Districts, Boroughs, City and County Councils and future national energy policy.

In line with local and national policy, renewable energy is encouraged in developments to reduce the dependence on fossil fuels and moving towards more sustainable resources. There are a number of potential sources of renewable energy across Staffordshire & Stoke-on-Trent including biomass, anaerobic digestion, landfill gas, Energy-from-Waste (EfW) incineration, solar photovoltaics and onshore wind.

HEADLINES

A review has been undertaken of the Renewable Energy Planning Database (December 2018 version) and presented in [Figure 4.23](#). This reveals that there are 25 operational large scale (>1MW) renewable energy schemes in Staffordshire, including Four Ashes EFW Incinerator with a capacity of 23.0MW.

Across Staffordshire & Stoke-on-Trent there are:

- 1 Advanced Conversion Technology (ACT) facility producing 9.6MW of capacity
- 2 anaerobic Digestion facilities producing 7.3MW installed capacity
- 1 biomass facility with 2.6MW installed capacity
- 3 landfill gas facilities producing 6.7MW installed capacity
- 16 solar photovoltaics producing 90.1MW installed capacity
- 1 onshore Wind facility producing 4.0MW installed capacity

There are a number of additional facilities currently under construction or with planning approval with considerable capacity. The most significant of these are Wolverhampton West Sub Station Battery Storage Facility with a capacity of 50.0MW, Former Rugeley Power Station Battery Storage Facility, capacity of 49.9MW, Rubber and Allied Products, capacity of 40.0 MW, and Noriker Power Staunch Battery Storage Facility with a capacity of 20 MW.

KEY FINDINGS

There are a number of significant existing renewable energy sites within the Staffordshire & Stoke-on-Trent with further sites under construction or with planning approval. In the future, renewable energy is being increasingly encouraged within new developments in line with local and national policy.

BROADBAND



CURRENT SITUATION

The roll-out of superfast broadband in the UK has primarily been led by private providers. The Government's policy is to support the roll-out of superfast broadband to those areas not reached by private investment. To do so, the UK Government has been providing funding to local bodies in England through the Superfast Broadband Programme. The programme is managed by Broadband Delivery UK (BDUK), part of the Department of Digital, Culture, Media and Sport (DCMS).

The £32m Superfast Staffordshire project is a partnership between Staffordshire County Council, BDUK, BT and Openreach. It aims to deliver access to superfast broadband services (over 24Mbps) to 96% of premises in Staffordshire. In Staffordshire and Stoke-on-Trent, commercial rollout of superfast broadband has provided coverage to approximately 80% of premises (approx. 400,000 premises).

The Superfast Staffordshire scheme has provided broadband access to 80,000 homes and businesses. Currently around 64% of premises in Staffordshire have upgraded to a superfast connection. Superfast Staffordshire are working with communities to raise awareness and encourage further take up of the service.

The Superfast Staffordshire project is ongoing and will seek to reinvest the gainshare / clawback funding as it becomes available.

INFRASTRUCTURE REQUIRED TO SUPPORT GROWTH

The funding and development of new technologies are required to support connectivity for the remaining 4% of premises in Staffordshire (approximately 20,000). These premises are predominantly in rural areas of the county where high costs of building fibre infrastructure due to challenging geography or terrain and low population densities reduce the returns that telecoms operators receive from customers taking up services.

Some funding for these areas will be made available through the BT gain-share mechanism and reinvested to get the coverage across the UK to 98%. The final 2% will be most reliant on the Universal Service Obligation (2020) where residents have a legal right to request a minimum of 10Mbps by 2020 providing it does not cost more than £3,400 per premise.

Another option for the final 4% in Staffordshire is the Community Fibre Partnership initiative where Openreach work with a local group of residents or a group of business owners to find a solution to bring fibre broadband to their area. The community are expected to make a financial contribution towards the cost of this themselves. Several communities have benefitted to date with the help of the Superfast Staffordshire programme. The government have

recently launched the Rural Gigabit Broadband Voucher scheme that can be used to subsidise the community contribution up to £3,500 for small-to-medium sized businesses and up to £1,500 per residential premise.

FUTURE INVESTMENT

The Government's Future Telecoms Infrastructure Review highlights the aim to ensure that 15 million premises across the UK are connected to a gigabit capable service by 2025, with coverage across all parts of the country by 2033. Full-fibre (next generation 'Fibre to the Premises') is faster, more reliable, and more affordable than the existing copper-based network. Nationally only around 11% of premises currently have full fibre and in Staffordshire the figure is around 9%. Openreach has announced that Lichfield District is one of the latest locations to be part of its 'Fibre First' programme.

The Government's Future Telecoms Infrastructure Review estimates that the rollout of full-fibre to all circa 30 million premises across the UK will cost in the region of £30bn. It is expected that the delivery of full-fibre will be fully commercially viable for around 80% of premises, with the remaining 20% requiring some level of public subsidy. Whilst this issue continues to be considered, it has been estimated that the 10% of premises that will be the hardest to connect to full-fibre are likely to cost around £4,000 per premise whilst those in the 10% to 20% bracket are likely to cost £2,500 per premise.

Assuming the cost of the rollout of full-fibre across Staffordshire & Stoke-on-Trent is similar to what it is estimated to be across the UK as a whole, in total it is estimated that the rollout to all existing premises in the county will cost in the region of £540m with the cost to connect the planned growth in houses up to 2038 being around £87m, with an additional £21m to connect planned commercial premises. Of course, a proportion of the cost of the rollout will be met by the private sector with the level of public subsidy for premises that are harder to connect assumed to be the estimated cost per premise less the average amount it is estimated to cost each premise that is fully commercially viable. This results in an estimated public subsidy requirement of around £350m for existing premises in Staffordshire & Stoke-on-Trent and around £10.8m for the planned housing growth up to 2038.

NEW DEVELOPMENTS

As Staffordshire seeks to become a county with 100% coverage of superfast broadband, it is essential that all new developments are constructed with a gigabit capable service. Access to broadband is a vital component of infrastructure in today's world. It is key to growing a sustainable local economy, supporting education and home working, and is increasingly vital for accessing essential services such as banking, utilities and access to public services. Superfast Staffordshire are working with Local Planning Authorities and Developers to ensure that new developments are 'future-proofed' by installing direct fibre access. In addition, the Government through its Future Telecoms Infrastructure Review are proposing new legislation to ensure all new build developments where appropriate are connected with full fibre.

COSTS AND FUNDING

Based upon the aggregated cost of projects identified on the SIP project list and from theoretical benchmark modelling where no tangible projects have been identified, the following Staffordshire wide cost and funding gap has been estimated:

Cost = £108,080,000

Estimated Funding Gap = £10,800,000

Figure 4.24

Superfast broadband coverage

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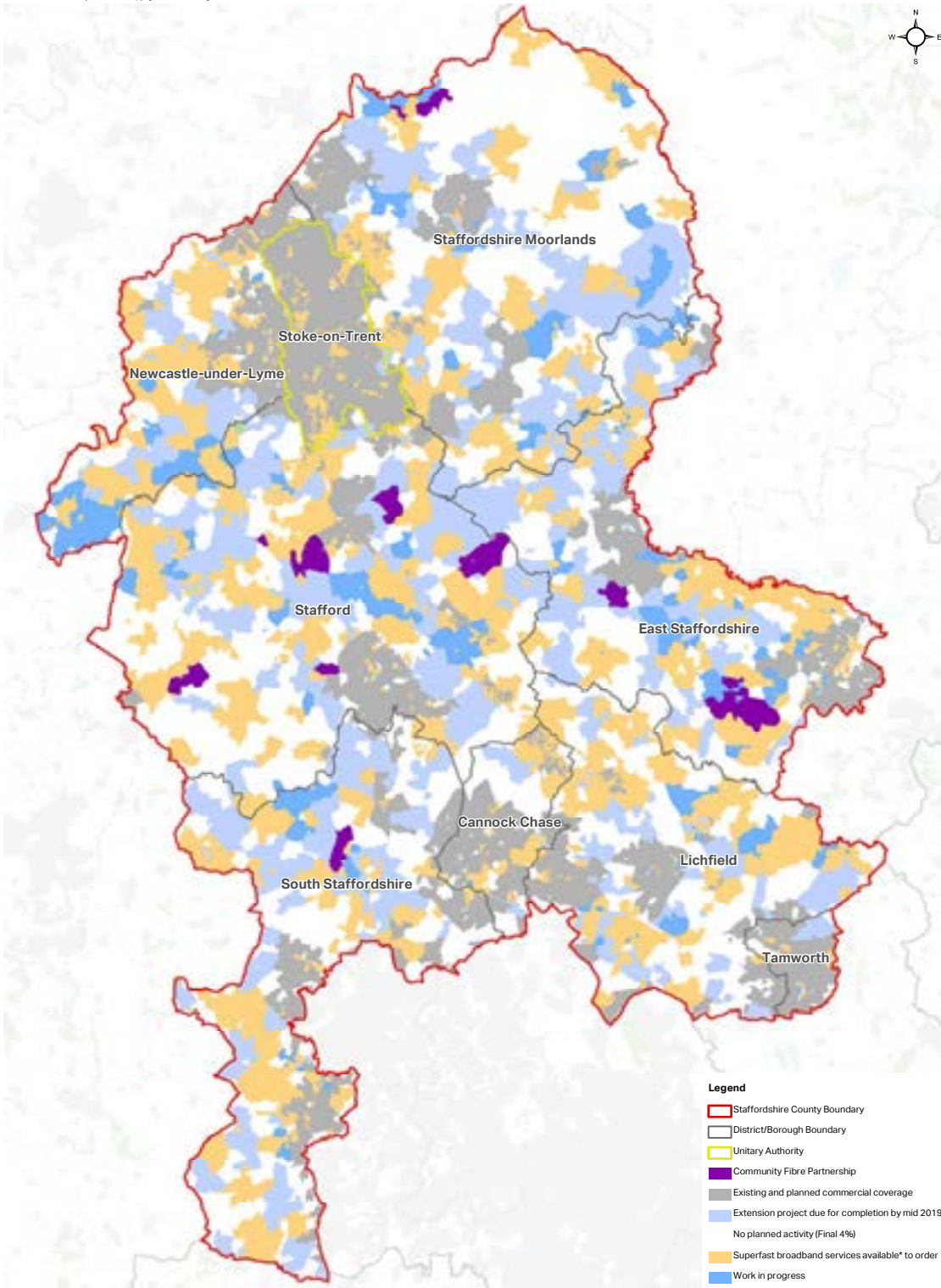


FIGURE 4.26 - SUPERFAST BROADBAND STATUS OCTOBER 2018

Source: Superfast Staffordshire, Staffordshire County Council (October 2018)

WATER SUPPLY



CURRENT SITUATION

There are currently two water supply companies serving Staffordshire & Stoke-on-Trent, Severn Trent Water and South Staffordshire Water, as shown in [Table 4.22](#) and [Figure 4.25](#).

These companies have produced Water Resource Management Plans (WRMP) to cover the next 25 years. These plans detail the strategies being implemented by Severn Trent Water and South Staffordshire Water to meet customer demand over the next AMP (Asset Management Plan) cycle, AMP 7, and beyond, accommodate the potential increase in demand from new development and manage the existing supply of water whilst accounting for future changes due to climate change. Plans are updated every five years.

EXISTING INFRASTRUCTURE CAPACITY AND ISSUES

SEVERN TRENT WATER

As part of a 2010 to 2020 initiative, Severn Trent have reduced leakage by 72 megalitres per day (ML/d) and reduced water consumption by 45 ML/d by means of a water efficiency programme.

Severn Trent have implemented schemes in recent years to improve supply security, such as: Derwent Valley Aqueduct capacity increase; establishing an alternative source for 1.3 million customers in Birmingham from a new River Severn Source; three new boreholes drilled to supply Birmingham; refurbishing existing boreholes; converting Hockley Boreholes for use as emergency public water supply sources; and, purchase of 31ML/d abstraction rights from a third party for a source on the River Severn.

As outlined in the Draft WRMP (2019), the population in the region supplied by Severn Trent, is likely to increase by an additional 1.13 million people over the next 25 years. Meanwhile, water resources are predicted to become scarcer. Severn Trent has identified climate change as having the potential to cause loss of deployable output in the long term.

It is predicted that, in the absence of future investment, Severn Trent will experience supply/demand shortfalls in the North Staffordshire, Nottinghamshire and Strategic Grid Water Resource Zones (WRZs). WRZs are defined as the largest possible zone in which customers share the same risk of a resource shortfall.

SOUTH STAFFORDSHIRE WATER

As per South Staffordshire Water's revised Draft Water Resources Management Plan 2019 v2 (July 2019), they predict the population of their strategy region will increase by 238,000, with an estimated 127,000 homes to be built between the present day and 2045.

Household demand in the South Staffordshire Water region is forecast to increase by 24 ML/d by 2044/45. A rise in demand has also been predicted for non-household and business customers between 2020 and 2045.

In terms of leakage reduction in the period covered by the current WRMP, South Staffs Water maintain a performance commitment of 70.5 ML/d.

Approximately 40% of South Staffordshire Water's water supply is abstracted from groundwater boreholes, and the remaining from Blithfield Reservoir and the River Severn. It is estimated that approximately 20% of the service reservoirs are deteriorating and this is considered a key risk for future stability of supply to the region.

INFRASTRUCTURE REQUIRED TO SUPPORT GROWTH SEVERN TRENT WATER

One fundamental outcome of the Water Framework Directive is to prevent future deterioration of the environment. Severn Trent has estimated that to meet this directive, up to 159 ML/d may have to be replaced. To restore sustainable abstraction, Severn Trent estimates that over the next decade, abstractions from a number of sources must be reduced by up to 69 ML/d.

The Draft WRMP outlines Severn Trent's approach to managing and mitigating water supply risk through strategic investment in new/alternative supply sources to replace those that are, or are likely to become, unsustainable and mitigate against the impacts of abstractions through local environmental protection measures. New supply schemes recommended in the area of study include: improving water treatment works outputs at North Staffordshire Site L (located in the Peak District, within the North Staffordshire WRZ) during periods of low raw water, as well as enhanced treatment and sustainable abstractions at the Peckforton Group boreholes.

Severn Trent also seeks to reduce water demand and increase water efficiency, expanding approaches currently in place.

Between 2020 and 2025, Severn Trent's aim is to reduce leakage volumes by a further 66 ML/d (15%), with a view to

Table 4.22

Water Supply Providers

	SEVERN TRENT WATER	SOUTH STAFFS WATER
Cannock Chase		
East Staffordshire	*	
Lichfield		
Newcastle-under-Lyme		
South Staffordshire		
Stafford		
Staffordshire Moorlands		
Tamworth		
Stoke-on-Trent		

Source: Severn Trent Water / South Staffs Water

* Severn Trent Water's presence in East Staffordshire constitutes a very minimal area

accommodating increased demand and uncertainty due to climate change. This is in line with Ofwat’s expectation of a minimum of 15% leakage reduction by 2025.

Severn Trent has established a home check programme to fit water saving devices and offer advice on consumption reduction. The Draft WRMP proposes that these water efficiency programmes be deployed on a greater scale.

Metering has also been identified as an important strategy in managing demand and leakage identification. Approximately 41% of households in the Severn Trent region pay by meter at present. The previous WRMP forecast was to increase this figure to 70% by 2040 and in the current Draft WRMP, Severn Trent aim to have achieved full coverage by AMP9. Full coverage metering is predicted to provide up to 80 MI/d in demand benefit.

SOUTH STAFFS WATER

In order to improve water efficiency across the network, South Staffordshire Water has proposed an ambitious target of 25% leakage reduction by 2024/25, increasing to 40% by the end of the 25-year planning period.

At present, household customers in this region have the lowest average per capita consumption of water companies in England and Wales. South Staffordshire Water has outlined a target consumption reduction of one litre per head per day. As well as household consumption reductions, South Staffordshire Water aim to incentivise developers to utilise water efficiently through greywater recycling and rainwater harvesting.

Metering is an important component of water efficiency and demand reduction. In the revised Draft WRMP (July 2019), South Staffordshire Water has forecast an increase in the uptake of meters from 41% in 2020/21 to 66% by 2044/45, approximately 112,000 additional meters over the 25-year period.

South Staffordshire Water intends to continue using existing sources efficiently over the next 25 years. Investment in infrastructure will be necessary to facilitate this, such as: new processes at two new water treatment plants which will allow two groundwater sources to become operational and investment in two new major treatment works. Groundwater abstraction volumes are to be reduced to reduce the risk of environmental damage. During the development stage of the two major treatment works, South Staffordshire Water have proposed a supply trade agreement with Severn Trent water to ensure supply security.

KEY FINDINGS

- Future investment will be required from Severn Trent Water and South Staffordshire Water if they are to: maintain sustainable supply (particularly where faced with future growth and the uncertainty related to climate change); as well as reduce the adverse environmental impacts of abstraction.
- Mitigation against supply shortfalls is expected to include: leakage reduction; demand management; and, investment into additional supply to the network.

COSTS AND FUNDING

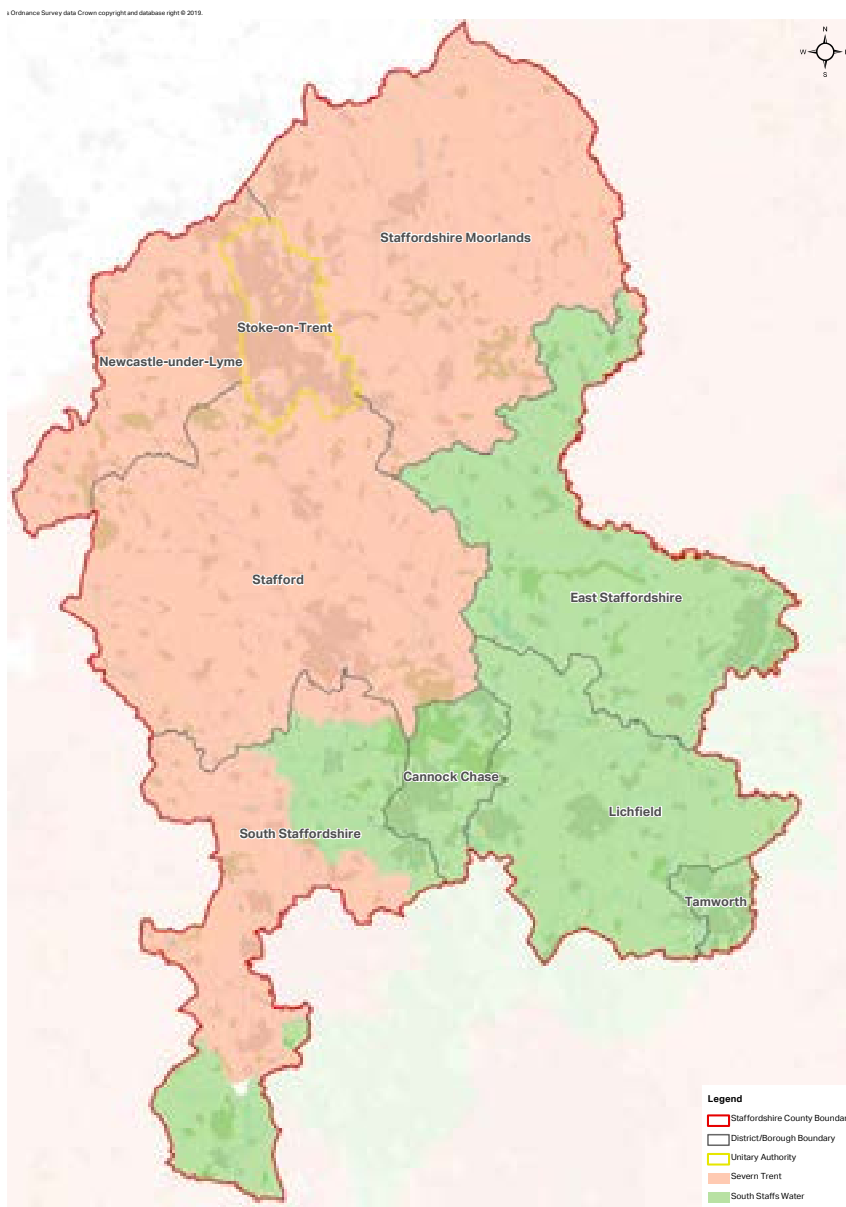
Based upon theoretical benchmark modelling, the following development connection costs and funding have been identified for water supply:

Cost = £101,470,000

Estimated Funding Gap = £0

Figure 4.25

Water company coverage



Source: Severn Trent Water / South Staffs Water

WASTE WATER



CURRENT SITUATION

Severn Trent Water and United Utilities are responsible for waste water within the Staffordshire & Stoke-on-Trent area. Table 4.23 shows their coverage across the region.

Waste Water assets are managed on a 5 year Asset Management Plan (AMP) period and are regulated by the Water Services Regulation Authority (Ofwat). The current AMP cycle is AMP6 (2015-2020). AMP periods are linked to regular price reviews, allowing for the combined regulation of price, investment and service delivery. Water companies were required to submit their five-year business plans in September 2018 for the next price control period (2020-2025). Local Plans, Water Resource Management Plans (WRMPs) and AMPs should inform each other, allowing for an indication as to the quantum of development, the impacts on existing infrastructure and associated capacity constraints.

Table 4.23
Waste Water Coverage

	SEVERN TRENT WATER	UNITED UTILITIES
Cannock Chase		
East Staffordshire		
Lichfield		
Newcastle-under-Lyme		
South Staffordshire		
Stafford		
Staffordshire Moorlands		
Tamworth		
Stoke-on-Trent		

Source: Severn Trent Water / United Utilities

EXISTING INFRASTRUCTURE CAPACITY AND FUTURE INVESTMENT REQUIRED TO SUPPORT GROWTH

The waste water infrastructure consists of the sewerage network taking flows from properties and the Waste Water Treatment Works (WwTWs) that treat this and discharge it back to watercourses. Capacity of existing infrastructure is essential when considering whether constraints to growth are caused by existing infrastructure.

Table 4.24 provides information on existing infrastructure capacity and issues per Local Authority. WwTWs identified are those where specific capacity and issues have been identified and do not represent each WwTW within the area. It should be noted that the studies used to inform this chapter have the potential to be outdated in some instances. As such, engagement with Severn Trent Water and United Utilities has proven valuable in ensuring relevance of information. United Utilities cover a small area of Newcastle-under-Lyme Borough Council and Staffordshire Moorlands District Council, much of which is rural in nature. As a result, the waste water network in this area is limited.

INFRASTRUCTURE REQUIRED TO SUPPORT GROWTH

Significant enhancement to waste water infrastructure is required in order to support growth up until 2038 across Staffordshire & Stoke-on-Trent, including both planned and additional infrastructure. Table 4.24 identifies the improvements required per Local Authority and WwTWs. Enhancements range in scale with major capital works (~£45m) being undertaken at Clay Mills WwTW. Similarly, at Goscote WwTW a future capital scheme aims to improve discharge quality in association with the proposed additional dwellings in the Goscote catchment area. Wider infrastructure upgrades and capital schemes are often associated with scheme development, in addition to the requirement for connections to existing systems (many of which require pumping).

Across Staffordshire & Stoke-on-Trent, many required upgrades are constrained by environmental considerations and sensitivities, such as at Tamworth WwTW where Water Industry National Environment Programme (WINEP) improvements are planned in AMP7 to alleviate issues related to WwTW discharges. It should be noted that for the majority of WwTWs, Severn Trent Water (STW) does not have concerns regarding capacity enhancements. However, enhancements are reliant upon additional consents being granted by the Environment Agency and water quality targets being retained. Development will require implementation of demand management techniques to accommodate increasing demand and effects of climate change. United Utilities have no planned improvements for Newcastle-under-Lyme or Staffordshire Moorlands (inclusive of the Biddulph WwTW) for AMP7 (2020-25).

KEY FINDINGS

- The majority of WwTWs require further expansion to accommodate flow as they are nearing consented discharge limits and/or hydraulic capacity is limited
- Headroom is limited across a range of WwTWs (physical and/or quality constraints)
- Development is likely to cause a capacity exceedance across a number of WwTWs
- Waste water collection infrastructure improvements will be required for a large number of development schemes
- Generally, issues in negotiating new consents are not anticipated (reliant upon additional consents being granted by the Environment Agency and water quality targets being retained)
- Development should not be considered in isolation as significant impacts on downstream assets may occur
- Significant enhancement to waste water infrastructure is required in order to support growth up until 2038 across Staffordshire
- Enhancements range in scale with major capital works, wider infrastructure upgrades and capital schemes, and connections to existing systems
- Across Staffordshire & Stoke-on-Trent, many required upgrades are constrained by environmental considerations and sensitivities
- The demands of the Water Framework Directive (WFD) may result in tighter discharge consent limits which may impact on proposed development

- The technology required to meet more stringent quality standards in a discharge may be cost prohibitive and delay development
- In the affected catchments, the demands of the WFD may result in the limits of the discharge consents becoming tighter in the future. A reduction in the volume of consented discharge or more stringent limits may impact on proposed development in the catchment. The technology required to meet more stringent quality standards in a discharge may be cost prohibitive and delay development.

COSTS AND FUNDING

Based upon theoretical benchmark modelling, the following development connection costs and funding have been identified for waste water:

Cost = £134,090,000

Estimated Funding Gap = £0

Figure 4.26

Waste Water Infrastructure

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Source: European Environment Agency – Waterbase – UWWTD: Urban Waste Water Treatment Directive – reported data (22/03/2016)

The location of WwTWs across Staffordshire & Stoke-on-Trent together with their capacity versus entering load is shown in Figure 4.26. This information is taken from datasets reported by European member states under the Urban Waste Water Treatment Directive and illustrates the distribution of works as well as providing an indication of their capacity to accommodate growth. This data is a snapshot of the infrastructure provision at the time of its collation and thus subject to change. This data should be treated as an indication of capacity only as other factors will also affect the ability to accommodate growth.

Table 4.24

Existing Infrastructure Capacity

Local Authority	General Waste Water Information	Waste Water Treatment Works (WwTW)	Existing Infrastructure and Issues
Cannock Chase Southern Staffordshire Outline Water Cycle Study (2010) Plan Period: 2010-2026 5,800 Residential Dwellings 84 ha Employment Land	WwTWs are reaching consented discharge limits Majority of WwTWs require further expansion or analysis to accommodate flow No expansion constraints (physical or quality) Moderate wastewater collection infrastructure improvements required STW do not foresee issues regarding negotiating new consents	Cannock	Development may cause exceedance of capacity Minimal water quality headroom Required updates/expansion not considered a barrier to development
		Goscote	Minimal water quality headroom No major capacity issues or upgrades
East Staffordshire East Staffordshire Water Cycle Study (2013) Plan Period: Unknown Burton-upon-Trent 6,473 Residential Dwellings Uttoxeter 857 Residential Dwellings Rural Areas 544 (plus ~101 windfall) Residential Dwellings Surrounding Villages (~160 windfall sites)	STW do not foresee significant issues associated with providing additional treatment capacity (physical/quality)	Clay Mills	Recommended deferral of development south of Tutbury to allow time for capacity improvements
		Uttoxeter	Spare hydraulic capacity yet limited headroom in the secondary treatment process
		Barton-under-Needwood	Limited headroom and capacity, yet no land constraints
		Yoxhall, Marchington and Mayfield	Headroom is limited.
		Stanton	Capacity to receive flows from Drakelow Power Station redevelopment (2,239 dwellings) as an alternative to Clay Mills.
		Checkley	Combined Sewer Overflows (CSOs) and sewage pumping stations could be impacted by additional flows Development should not be considered in isolation as significant impacts on downstream assets may occur Capacity constraints not anticipated for smaller schemes (providing surface water is managed sustainably) The majority of developments are likely to have a moderate impact on capacity
Lichfield Southern Staffordshire Outline WCS (2010) Plan Period: 2010-2026 8,000 Residential Dwellings 99 ha Employment Land	WwTWs are reaching or exceeding their consented discharge limits Majority of WwTWs would require expansion/ additional analysis (bar Armitage, Colton and Hamstall Ridware) No major issues associated with wastewater collection and treatment, improvements in some areas such as Streethay and Fazeley will be required For the majority of WwTWs, STW has no concerns regarding capacity enhancements (reliant upon additional consents being granted and water quality targets being retained)	Lichfield	No hydraulic capacity; Headroom is limited (physical and quality); Development may result in severe capacity exceedance
		Alrewas	No hydraulic capacity and headroom is very limited (physical and quality) Restrictions regarding infrastructure extent/capacity Development may result in severe capacity exceedance
		Little Aston	Headroom is limited
		Bassetts Pole	No hydraulic capacity
		Burntwood	Headroom is limited (physical and quality); No major capacity issues or upgrades requirements
		Edingale	Headroom is limited (physical and quality); New Consent to Discharge may be refused
		Elford	Headroom is limited
		Walsall Wood	
Clifton Campville	Headroom is limited (physical and quality) ; New Consent to Discharge may be refused		
Newcastle-under-Lyme	A long-term strategy of surface water separation will benefit sewer capacity. As part of the 2019 Price Review (PR19) plan, STW are intending to target surface water inundation and infiltration issues.		
South Staffordshire Southern Staffordshire Outline WCS (2010) Plan Period: 2010-2026 3,500 Residential Dwellings 24 ha Employment Land	A number of WwTWs are reaching/exceeding consented discharge limits and require expansion STW do not have concerns regarding increasing capacity (reliant upon the Environment Agency granting additional consents and WwTWs retaining required water quality targets). Some sites require wastewater collection capacity improvements (mains/pumping stations)	Penkrige	No hydraulic capacity at present ; Limited headroom No constraints to expansion (physical or quality) Development could result in severe quality exceedance
		Codsall	No hydraulic capacity at present

Local Authority	General Waste Water Information	Waste Water Treatment Work (WwTW)	Existing Infrastructure and Issues
Stafford Southern Staffordshire Outline WCS (2010) Plan Period: 2010-2026 10,100 Residential Dwellings (7,000 Stafford) 120 ha Employment Land	A number of WwTWs are reaching/exceeding consented discharge limit and require expansion There are no constraints to expansion (physical or quality) STW do not have concerns regarding increasing capacity (reliant upon the Environment Agency granting additional consents and WwTWs retaining required water quality targets) Regarding waste water collection, development sites may require infrastructure improvements to increase capacity (mains and/or pumping stations) Lammascote pumping station is currently operative at capacity	Haughton	No hydraulic capacity Capacity exceedance may occur
		Pirehill	Limited headroom Development may result in severe capacity exceedance
		Eccleshall and Strubridge	Development may result in severe capacity exceedance
		Wood Eaton	Development may result in severe capacity exceedance
		Hixon	Limited headroom Capacity exceedance may occur as a result of proposed development
		Woodseaves	Capacity exceedance may occur as a result of proposed development.
		Brancote	Significant investment has resulted in the completion of a strategic transfer from the northern part of the network, releasing capacity in the system
		Weston	Limited headroom
		Rugeley	No major capacity issues or upgrades
Staffordshire Moorlands Staffordshire Moorlands Water Cycle Study (2017) Plan Period: Unknown Leek: 597 Units Cheadle: 1026 Units Larger Villages: 459 Units	Waste water is not supplied on a pressured system and there are no anticipated issues with supply	Leek	Moderate capacity issues associated with larger schemes Capacity constraints not anticipated for smaller schemes (providing surface water is managed sustainably) Sewage pumping stations (Ashenhurts Way and Lady Dale) may be impacted by additional connections
		Aldon	Capacity constraints not anticipated for smaller schemes (providing surface water is managed sustainably)
		Endon	Incidents downstream indicate that development may have a negative impact due to increase in flows
		Waterhouses	Impacts on capacity are considered low
Tamworth Southern Staffordshire Outline WCS (2010) Plan Period: 2010-2026 2,900 Residential Dwellings 42 ha Employment Land	Waste water collection is adequate within the town centre Development on the outskirts of Tamworth will require new connections A scheme is proposed for Lichfield Road terminal pumping station rising main (high profile risk)	Colton	Limited headroom No expansion constraints (physical or quality) Development may result in quality exceedances
		Tamworth	Headroom is limited Development may result in severe capacity exceedance
Stoke-on-Trent Information collated from STW's Drainage and Wastewater Management Plan 'Lite' (2018)	CSO operation and sewer capacity are key considerations within the area During PR19, STW are intending to target surface water inundation and infiltration issues Investment will be phased over AMP7 and AMP8 and will benefit sewer capacity	Strongford	Development may exacerbate the volume and spill frequency of CSOs Minimal water quality headroom Impacts on capacity are considered low

Source: Staffordshire County Council / Stoke-on-Trent City Council

Table 4.25

Infrastructure required to support growth (as identified in Local Plans and Infrastructure Development Plans)

Local Authority	Location	Infrastructure required to support growth
Cannock Chase	Cannock WwTW	Capacity improvements to accommodate 1,050 dwellings (Pye Green) ongoing
	Goscote WwTW	A future capital project aims to improve discharge quality, in associated with the proposed increase of ~3,000 dwellings by 2035
	Penkridge Bank WwTW	Development must account for environmental sensitivities
East Staffordshire	Clay Mills WwTW	Major capital capacity improvements (£45m); Infrastructure upgrades and capital schemes (sewers and sewage pumping stations) required
	Uttoxeter WwTW	Upgrade/refurbishment required; Ongoing sewer capacity project underway to accommodate 700 dwellings and school
	Land South of Lichfield Road, Branston	New pump station and large diameter foul sewer
Lichfield	Little Aston WwTW	Significant improvement needed to accommodate additional flows
	Shenstone WwTW	
	Area-wide	Investment in waste water collection required Measures to address waste water treatment are required at Crickets Lane, Deans Slade, East of Lichfield, East of Burntwood, Rural Areas and East of Rugeley development areas
Newcastle-under-Lyme	Loggerheads Sanatorium WwTW	Investment is planned at Baldwin's Gate WwTW in AMP7; Investment is planned at Loggerheads Sanatorium WwTW in AMP7. This will include providing capacity so Loggerheads Village WwTW can be closed and flows can be transferred to Loggerheads Sanatorium WwTW.
	Loggerheads Village WwTW	
	Baldwin's Gate WwTW	
South Staffordshire	Penkridge WwTW	Additional investment may be required as a result of future development and existing capacity restrictions
	Codsall WwTW	Works and improvements are likely to be required owing to capacity restrictions
Stafford	Area-wide	Capacity improvement are likely to be required to accommodate: <ul style="list-style-type: none"> • Development to the west of Stone • Beaconside and North Stafford • East of Stafford • West of Stafford Severn Trent Water has taken ownership of a private sewage pumping station which drains the site at Raleigh Hall via a Private Drains and Sewer transfer.
Staffordshire Moorlands	Froghall WwTW	Plans in progress to increase capacity
	Leek WwTW	Flows may require a pumped connection to existing systems
	Checkley WwTW	
	Endon WwTW	
Tamworth	Colton WwTW	Significant potential to expand works to accommodate growth (reliant upon granting of additional consents and water quality targets being retained)
	Tamworth WwTW	Sewerage growth project is underway to negate flood risk; AMP7 WINEP improvements planned to alleviate issues related to WwTW discharges to the basin Tame (from River Anker to River Trent)
Stoke-on-Trent	Strongford WwTW	Investment is planned at Strongford WwTW in AMP7; Local capacity updates are needed; Flows are likely to require pumped connections

Source: Staffordshire County Council, Stoke-on-Trent City Council, Staffordshire Districts



WASTE



Staffordshire & Stoke-on-Trent

525,000
tonnes of
municipal waste
per annum

Staffordshire & Stoke-on-Trent

94%
of waste
recovered, reused,
composted or
recycled

CURRENT SITUATION

Staffordshire County Council & Stoke-on-Trent City Council both act as the Waste Planning Authority (WPA) with the exception of the part of the county within the Peak District National Park. As the WPA, the Councils are responsible for determining planning applications for waste development and preparing a waste development plan. The most recent adopted Waste Local Plan is the Staffordshire & Stoke-on-Trent Joint Waste Local Plan 2010-2026 adopted in March 2013. It is the WPA's responsibility to plan for all types of waste facilities.

The District and the Borough Councils are Waste Collection Authorities (WCA), meaning they are each responsible for the collection of Municipal Solid Waste (MSW) in their area. Staffordshire County Council acts as Waste Disposal Authority (WDA) and are therefore responsible for the management and disposal of municipal and commercial waste collected by the Staffordshire WCAs. As a Unitary Authority, Stoke-on-Trent City Council is both the WCA and WDA for the city.

The WDAs in Staffordshire & Stoke-on-Trent utilise a number of strategically important contracts and facilities that allow for the recovery of non-recyclable waste within its boundaries for the long-term. These include

- The Hanford Energy Recovery Facility's (ERF) operational contract with Hanford Waste Services which comes to an end in 2025. The facility is owned by Stoke-on-Trent Council;
- The Four Ashes / W2R Energy from Waste (EfW) facility was brought into operation in 2013. The operational contract with Veolia expires in 2039. The facility is owned by Staffordshire County Council; and
- A Material Recycling Facility (MRF) at Aldridge in West Midlands. The facility is owned by Biffa.

The Staffordshire Waste Partnership (SWP) was established to provide a platform for collaborative working between the WCAs and the WDA. The Partnership is primarily responsible for the funding of municipal waste infrastructure in the County. As a means to reduce the amount of waste being sent to landfill the SWP provides a financial incentive to charitable and non-for profit organisations and WCAs to recycle waste known as recycling credits.

The Partnership has produced a Joint Municipal Waste Management Strategy (JMWS) for Staffordshire & Stoke-on-Trent (2007-2020) that was refreshed in 2013. The SWP

are currently producing a revised Joint Municipal Waste Management Strategy which will cover the period between 2020 and 2030. The Joint Municipal Waste Management Strategy indicates that SWP utilises the following technologies as waste recovery options other than landfill:

- Three in-vessel composting plants (for garden waste);
- One Anaerobic Digestion (AD) plant (for organic waste involving food);
- Three dry recycling Material Recovery Facilities (MRFs);
- Three waste transfer stations; and
- Two Energy from Waste Plants for the treatment of residual waste which includes EfW plants located in South Staffordshire (known as Four Ashes/W2R) and Stoke-on-Trent (Hanford EfW).

The JMWS set a target of Zero Waste to Landfill by 2020 and a household waste and composting recycling rate of 55% by 2015. In 2017/18 a total of 525,484 tonnes of municipal waste was managed in Staffordshire and Stoke-on-Trent, of which 96% was household waste. In the same period the total amount of waste reused, recycled, composted/treated

Table 4.26

Waste Management Facilities in Staffordshire & Stoke-on-Trent

Waste Facility	Management
35 Aggregate Recycling Facilities	Private
23 Landfill Sites	Private
63 Materials Recycling Facilities	Private
15 Organic Treatment Facilities	Private/Public
6 Residual Treatment Facilities	Private
72 Waste Transfer Facilities	Public/Private

Source: The Staffordshire and Stoke-on-Trent Joint Waste Local Plan 2010 – 2026 – The First Review of the Waste Local Plan, December 2018

* Total figure (494,368 tonnes) is comprised of municipal waste less waste entering landfill and 'commercial waste, fly tipping, healthcare, etc'

and recovered was 494,368* tonnes accounting for 94% of all municipal waste .

The JMWS indicates that despite the public spending restrictions, local authorities in Staffordshire will continue to provide waste services. In 2012, the cost of providing waste management services for Staffordshire, including collection, treatment, processing and disposal cost, was in excess of £45million. Over £42 million of these costs can be attributed to the transport, processing and disposal of waste. As a result, the delivery plan focuses on these three key areas, ensuring the SWP has the correct infrastructure in the right areas to reduce transport mileage (and therefore direct carbon emissions), provide comprehensive yet low cost processing services and disposal options.

HEADLINES

The amount of waste collected by the local authorities in Staffordshire & Stoke-on-Trent has fallen between 2008/09 and 2017/18 because of a wide variety of social and economic factors. These include the Staffordshire Waste Partnership's waste minimisation projects; changes in the provision of waste collection facilities and changes in social attitudes to recycling.

In 2014, Staffordshire County Council, as WDA through its contract with Veolia, opened the Four Ashes W2R energy recovery facility. The facility accepts predominantly residual municipal solid waste and some commercial and industrial waste and has the design capacity of 300,000 tonnes of waste per annum. The facility can generate approximately 26 Megawatts of electricity.

As of 2012 Staffordshire was already meeting its target to recycle 50% of household waste by 2015 as set within the Joint Municipal Waste Management Strategy. In 2017/18, the total amount of waste reused, recycled, composted/ treated and recovered was 494,368 tonnes accounting for 94% of all municipal waste.

Staffordshire & Stoke-on-Trent are net importers of waste*. The total amount of waste received into waste management facilities within the area was approximately 4.2 million tonnes with the amount of waste sent to other facilities outside Staffordshire & Stoke-on-Trent amounting to 1.3 million tonnes.

Table 4.26 shows the number and type of waste management facilities in Staffordshire & Stoke-on-Trent.

FUTURE REQUIREMENT

The Department for Environment, Food & Rural Affairs (Defra) published a policy paper titled 'Our Waste, Our Resources: A Strategy for England' in December 2018. It outlines actions and future commitments which seeks to support the ambition to double resource productivity and eliminating avoidable waste of all kinds by 2050. In terms

of resource recovery and waste management the following actions are set out.

- Improve recycling rates by ensuring a consistent set of dry recyclable materials is collected from all households and businesses;
- Reduce greenhouse gas emissions from landfill by ensuring that every householder and appropriate business has a weekly separate food waste collection, subject to consultation;
- Improve urban recycling rates, working with business and local authorities;
- Improve working arrangements between and better support performance of local authorities;
- Drive greater efficiency of Energy from Waste (EfW) plants;
- Address barriers to the use of recycled materials; and
- Encourage waste producers and managers to implement the waste hierarchy in respect of hazardous waste.

The UK Government is committed to spending £3bn by 2042 on developing new waste infrastructure including facilities to help improve recycling, such as Anaerobic Digestion plants. Therefore, there is a firm Government commitment to continue to invest in recycling infrastructure which could potentially result in additional infrastructure provision in Staffordshire.

The Staffordshire and Stoke-on-Trent Joint Waste Local Plan 2010-2026 sets out the minimum targets for future waste management capacity needs (Table 4.28) in order to manage waste streams to a level at least equivalent to the amount of waste generated in Staffordshire & Stoke-on-Trent.

The plan sets waste targets on the basis of moving towards a situation where 100% of municipal solid waste as well as commercial and industrial waste is diverted away from landfill by 2025/26. A target of diverting 70% of construction, demolition & excavation waste streams has also been set. To date all waste capacity targets have been met, and the provision of organic and residual treatment already exceeds the levels expected for the end of the plan period. The priority therefore is to seek to protect and enhance existing strategic waste infrastructure. A further review of the Waste Local Plan will occur before 2023 and reconsider the need for additional waste infrastructure. Staffordshire & Stoke-on-Trent's waste capacity was considered sufficient to meet minimum requirements in 2018. However, waste sites may close and their associated capacity can be lost, and recently waste sites, which have been included in the capacity assessments, may not come forward.

* - Annual Monitoring Report (Minerals and Waste) 2018/19 - Staffordshire County Council

Table 4.27

Waste Management in Staffordshire & Stoke-on-Trent

	Waste Management Type	Tonnes	% waste managed in Staffordshire & Stoke
Household Waste	Staffordshire Recycling Kerbside and Recycling Centres	91,863	23%
	Stoke Recycling Kerbside and Recycling Centres	20,124	20%
	Staffordshire Composting Kerbside and Recycling Centres	98,045	25%
	Stoke Composting Kerbside and Recycling Centres	15,427	14%
	Staffordshire Energy from Waste	201,805	50%
	Stoke Energy from Waste	61,947	60%
	Staffordshire Landfill	7,639	2%
	Stoke Landfill	6,304	6%
	Staffordshire Total Household Waste	399,352	76%
	Stoke-on-Trent Total Household Waste	103,802	20%
	Total Household Waste	503,154	96%
Other Waste	Staffordshire commercial Waste, Fly-Tipping, Healthcare, etc	7,156	1%
	Stoke commercial Waste, Fly-Tipping, Healthcare, etc	10,017	2%
	Staffordshire Soil & Rubble via Recycling Centres	2,897	<1%
	Stoke Soil & Rubble via Recycling Centres	2,260	<1%
Total	Total Staffordshire Municipal Waste	409,405	78%
	Total Stoke Municipal Waste	116,079	22%
	Total Municipal Waste	525,484	100%

Source: SCC Annual Monitoring Report 2017/18

Table 4.28

Progress against Waste Local Plan targets for additional waste treatment capacity

Waste Management Type	Target 2010/11	Target 2015/16	Target 2020/21	Target 2025/26	Progress at 2018
Recycling/ Material Recovery	952,620	1,370,913	1,792,659	1,800,919	1,574,804
Organic Treatment	272,970	382,977	478,641	484,381	553,500
Residual Treatment	451,410	620,160	744,700	758,700	840,566
Total	1,677,000	2,374,050	3,016,000	3,044,000	2,968,870

Source: The First Review of the Waste Local Plan, December 2018

COSTS AND FUNDING

Based upon theoretical benchmark modelling, the following costs and funding have been identified for waste infrastructure:

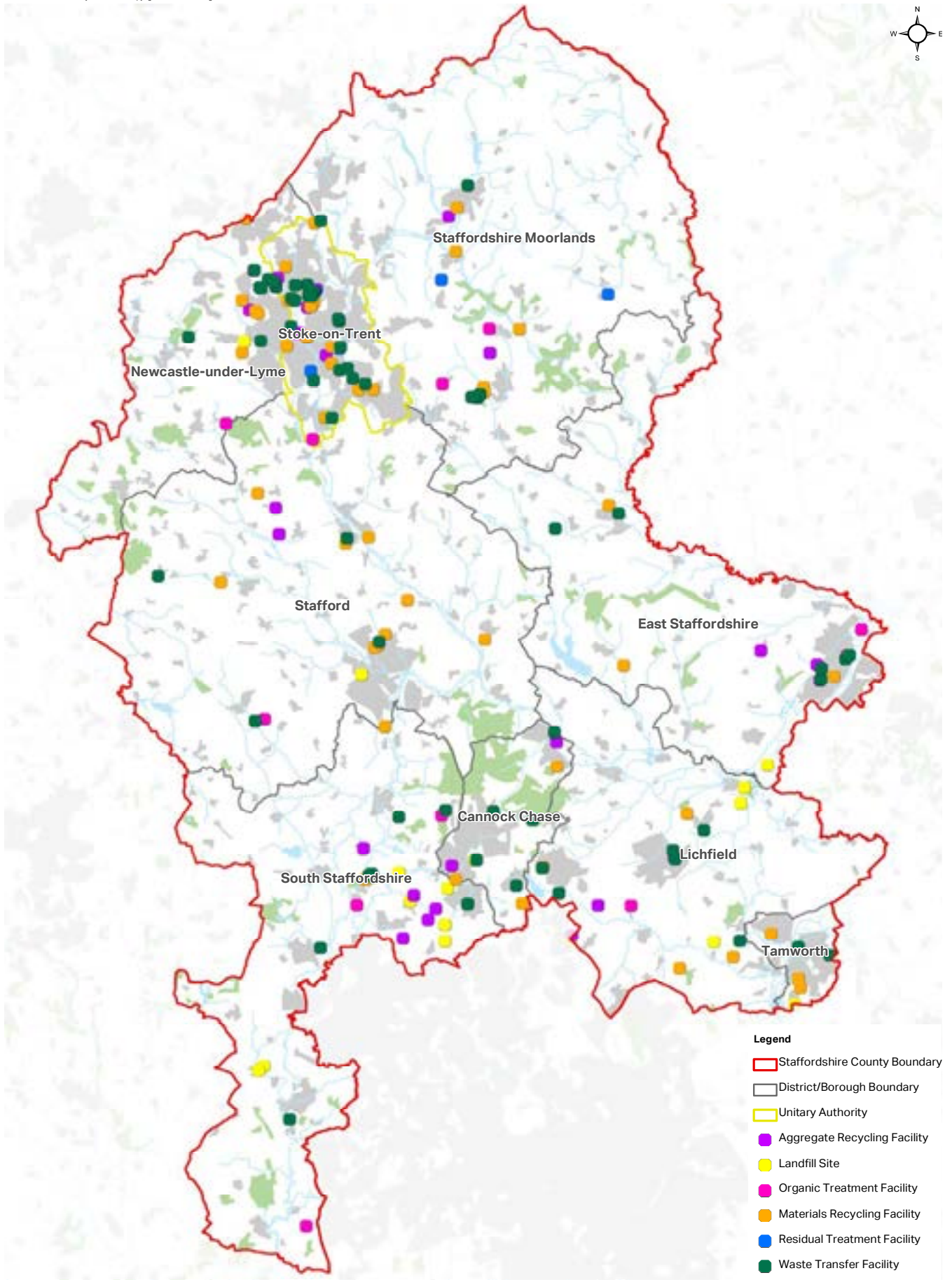
Cost = £9,270,000

Estimated Funding Gap = £4,640,000

Figure 4.27

Waste processing sites in Staffordshire & Stoke-on-Trent

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Source: Waste Interrogator 2017

4.8 FLOODING & DRAINAGE

FLOODING



Staffordshire & Stoke-on-Trent

10,700
properties at risk
from fluvial flooding

CURRENT SITUATION

As per the Flood Risk Regulations (2009) and the Flood and Water Management Act (2010), Staffordshire County Council acts as the Lead Local Flood Authority (LLFA) for the County. Stoke-on-Trent City Council act as the LLFA for their respective area. Lead Local Flood Authorities are responsible for developing, maintaining, applying and monitoring a strategy for flood risk management, including flood risk from surface water runoff, groundwater and ordinary watercourses. The Environment Agency is responsible for flood risk from main rivers and the risk of flooding from sewers is monitored and managed in Staffordshire by Severn Trent Water and United Utilities (South Staffordshire Water also operates in part of Staffordshire, but for water supply only).

Staffordshire County Council and Shropshire Council have a flood risk management agreement in place and worked together to produce the Local Flood Risk Management Strategy (LFRMS) published in December 2015. In Staffordshire there are 10,600 properties at risk during a 1% annual exceedance probability (AEP) fluvial flood event. Within Stoke-on-Trent, the River Trent Catchment Flood Management Plan (CFMP) indicates that there are less than 100 properties at risk of flooding from the same event. Whilst there is comparatively low fluvial flood risk within the City, major risks are associated with localised storms resulting in rapid run-off in urbanised areas subsequently entering local watercourses. The 2010 Preliminary Flood Risk Assessment for Stoke-on-Trent indicated that 13,000 properties could be at risk from surface water flooding during a 0.5% AEP event, at a depth of 0.1m or greater. Historical records of sewer flooding and canal breaches are apparent across Stoke-on-Trent, with limited groundwater flooding records.

The vast majority of Staffordshire is within the Tame, Anker and Mease and the Staffordshire Trent Valley catchment areas of the Humber River Basin which contains the Rivers Trent and Sow. A small portion to the north of the county is within the Weaver Gowy catchment of the North West River Basin District.

Table 4.29

Flood Risk Management Policies, Trent and River Severn CFMP

Authority	Fluvial Flood Risk across Authority	Flood Risk Management Policy	Significant Existing Flood Defences
Cannock Chase	Low	Take further action to sustain the current level of flood risk into the future (responding to the potential increases in risk from urban development, land use change and climate change).	Recent flood defence works have significantly reduced flood risk. Rising Brook flood defence scheme.
East Staffordshire	High	Areas of moderate to high flood risk where we can generally take further action to reduce flood risk. Take further action to reduce flood risk.	There are significant flood defence structures protecting towns and cities that need to be maintained. Burton-upon-Trent (Washlands) flood defence scheme.
Lichfield (Considered to fall between CFMP Sub-Areas 'Mid Staffordshire and Lower Tame' and 'West Staffordshire')	Low	Take further action to sustain the current level of flood risk into the future (responding to the potential increases in risk from urban development, land use change and climate change). Take action with others to store water or manage runoff in locations that provide overall flood risk reduction or environmental benefits, locally or elsewhere in the catchment.	
Newcastle-under-Lyme	Low	Reduce existing flood risk management actions (accepting that flood risk will increase over time).	
South Staffordshire (Considered to fall with the 'West Staffordshire' CFMP Sub-Area)	Low	Take further action to sustain the current level of flood risk into the future (responding to the potential increases in risk from urban development, land use change and climate change).	
Stafford	Low	Take further action to sustain the current level of flood risk into the future (responding to the potential increases in risk from urban development, land use change and climate change).	Recent flood defence works (including raised flood banks) have significantly reduced flood risk.
Staffordshire Moorlands	Low (some small areas considered high)	Areas of low to moderate flood risk where we will take action with others to store water or manage run-off in locations that provide overall flood risk reduction or environmental benefits.	No works associated with flood defences over the last 5 years.
Tamworth Borough	Low (medium around Tamworth town)	Take action with others to store water or manage runoff in locations that provide overall flood risk reduction or environmental benefits, locally or elsewhere in the catchment.	Flood risk is generally low across the area, but recognised as medium around Tamworth due to the high number of properties behind existing flood defences. The River Tame channel has been heavily modified over the centuries, including widening and straightening to improve flow capacity. The Lower Tame flood risk management scheme consists of 4 flood schemes. These are in Coton, Fazeley, Kingsbury and Whitacre Heath.
Stoke-on-Trent	Low	Take further action to sustain the current level of flood risk into the future (responding to the potential increases in risk from urban development, land use change and climate change).	

EXISTING INFRASTRUCTURE CAPACITY AND ISSUES

Portions of several urban areas in Staffordshire & Stoke-on-Trent, including Stoke-on-Trent, Burton-upon-Trent and Stafford, are located within the areas designated by the Environment Agency as Flood Zone 3. As outlined in the Trent CFMP, Tamworth is estimated to have between 250 and 500 properties at risk during a 1% AEP fluvial flood event. Burton-upon-Trent, Stafford, Rugeley and Stoke-on-Trent are estimated to have less than 100 properties at risk in the same event. Historic fluvial flooding has also been reported in Biddulph to the north of the study area covered by the Weaver Goway CFMP.

Table 4.29 provides an overview of risk across each authority, key flood risk management policies from relevant CFMPs and significant existing flood defences.

Urban growth and climate change both have the potential to significantly increase the risk of flooding in Staffordshire. Within the Staffordshire Local Flood Risk Management Strategy, a number of objectives have been proposed to outline priorities and investment for flood alleviation, as follows:

1. Develop a strategic understanding of flood risk from all sources;
2. Promote effective management of drainage and flood defence systems;
3. Support communities to understand flood risk and become more resilient to flooding;
4. Manage local flood risk and development in a sustainable manner;
5. Achieve results through partnership and collaboration;
6. Be better prepared for flood events; and
7. Secure and manage funding for flood risk management in a challenging financial climate.

The River Trent CFMP identifies the following priorities for Stoke-on-Trent:

1. Working in partnership to return watercourses to a more natural state, enhancing biodiversity and promoting green river corridors through Stoke-on-Trent and other urban areas;
2. Investigate opportunities to manage flood risk in Stoke-on-Trent, and assess improving the river by de-culverting and opening up a green corridor through the city; and,
3. Produce and implement an Integrated Urban Drainage Strategy through Stoke-on-Trent and Stafford.

Major flood events are likely to be the result of a culmination of multiple sources of flooding including surface water (considered primarily within the drainage section of the chapter), groundwater, ordinary watercourses and artificial sources (sewer network, highway drainage, reservoirs and

canals). Given the county's inland location, tidal flooding does not pose a risk to Staffordshire & Stoke-on-Trent. Flood risk from other sources tends to be less well understood compared to fluvial flooding, making it increasingly challenging to predict.

GROUNDWATER

As per the LFRMS, groundwater flooding is not considered to be a widespread issue in Staffordshire & Stoke-on-Trent, with historic records being limited, and often associated with other sources of flooding following sustained periods of rainfall. Groundwater flooding is often localised, with historic records in Cannock Chase and East Staffordshire, reportedly related to disused mines. Figure 4.29 shows Areas Susceptible to Groundwater Flooding. The susceptible areas are represented by one of four categories showing the percentage of each 1km² that is susceptible to groundwater emergence.

SURFACE WATER

Surface water flood risk is primarily covered within the drainage part of the chapter. Surface water flooding in Staffordshire & Stoke-on-Trent is associated with relatively steep upland areas, such as Stoke-on-Trent, but is also known to occur in low-lying and urban areas. In rural areas, agricultural practices may result in high run-off rates from farmland. Figure 4.31 shows the areas in Staffordshire & Stoke-on-Trent deemed to be at risk of surface water flooding.

RESERVOIR FLOODING

Reservoirs with a volume greater than 25,000 cubic metres, above natural ground level, are governed by the Reservoirs Act 1975. In Staffordshire & Stoke-on-Trent, there are 45 reservoirs. The Act is enforced by the Environment Agency, ensuring that reservoirs are inspected regularly, with appropriate safety work carried out. Although there are several urban areas which would be at risk of flooding in the event of a reservoir breach, such as Tamworth, reservoir flooding is deemed to be unlikely to happen. Anecdotal evidence suggests releases from the Knypersely Reservoir have previously caused flooding in Norton Green yet this is not confirmed, with flooding potentially attributable to surface water runoff and drainage associated with development.

CANAL FLOODING

The risk of flooding from canals in Staffordshire & Stoke-on-Trent is considered to be low. The South Staffordshire, Cannock Chase, Lichfield and Stafford Strategic Flood Risk Assessment (2014) did not identify any canal breaches in the area.

On the Trent and Mersey Canal, no known occurrences of the canal flooding have been recorded, with the Canal being designed to maintain a 300mm freeboard. Problems may arise if levels in the River Trent were to exceed the bank height of the canal, potentially exceeding storage capacity

of the canal. Historical records of canal breaches are held for Stoke-on-Trent and Stafford. The Canal and River Trust recognise that an increase in runoff proximal to canals (from development or extreme flood events) could result in canal flooding.

SEWER FLOODING

In determining the risk of sewer flooding in Staffordshire, Severn Trent Water uses the Hydraulic Flood Risk Register which calculates risk based on the annual probability of flooding and consequence. This is then used to rank areas of high priority for potential scheme promotion. Since 2015, Severn Trent Water has reduced the number of internal and external sewer flooding incidences by 41% and 58% respectively. However, approximately 4.1% of customers are believed to remain at risk during an extreme event.

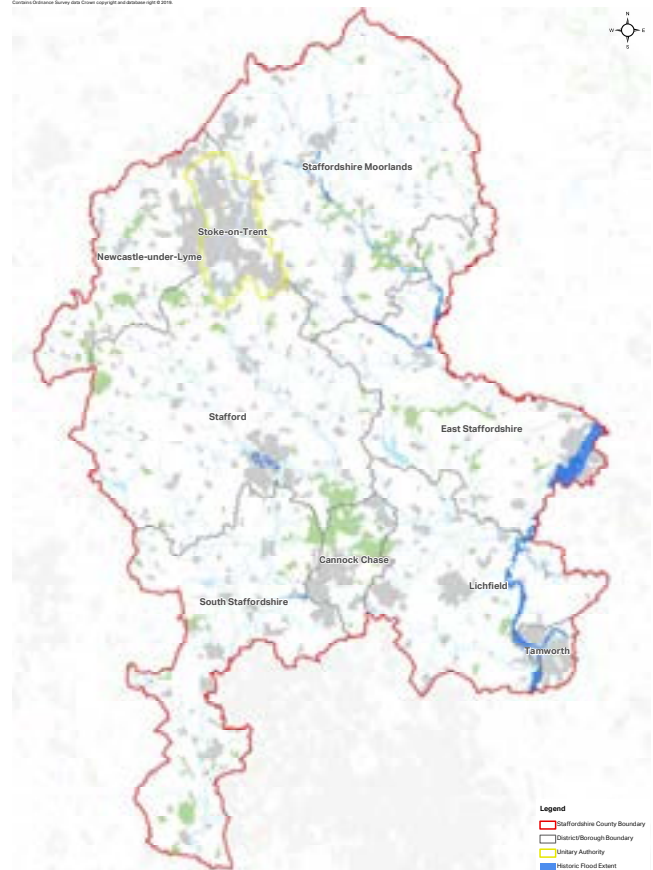
FUTURE REQUIREMENTS TO MEET GROWTH TO 2038

As per the Flood and Coastal Erosion Risk Management (FCERM) Programme (updated February 2018), the Environment Agency have outlined proposed schemes to be implemented by the Environment Agency and by local authorities in Staffordshire & Stoke-on-Trent to improve flood resilience. Key schemes include:

- Rising Brook (Rugeley) Town Centre Flood Alleviation Scheme (FAS);
- Fowlea Brook (Stoke-on-Trent) FAS;
- Branston Culvert Replacement Scheme;
- Dovecliff Weir;
- Marchington Brook (Uttoxeter) FAS;
- Burton-upon-Trent Phase 2 Flood Risk Management Scheme (3,358 homes better protected)
- Hamstall Ridware FAS;
- Marsh Lane, Lichfield;
- A series of property-level resilience works are also planned across the County;
- Brown Edge FAS;
- Village Brook (Endon) FAS;
- Additional works are needed at the Strategic Development Areas of Cricket Lane, Deans Slade and East of Lichfield to mitigate the impacts of the adjacent road and railway network;
- Within Tamworth, a wide range of flood alleviation works have been identified including flood defences, management of watercourses, access improvement to blue infrastructure and works required to reduce highways flooding as a function of high river levels; and
- Wider flood defence schemes have been identified within the Infrastructure Delivery Plans, such as works at Huntington, Perton, Wombourne, Endon, Leekbrook, Leek (Mount Road), Biddulph (Tunstall Road) and Upper Tean.

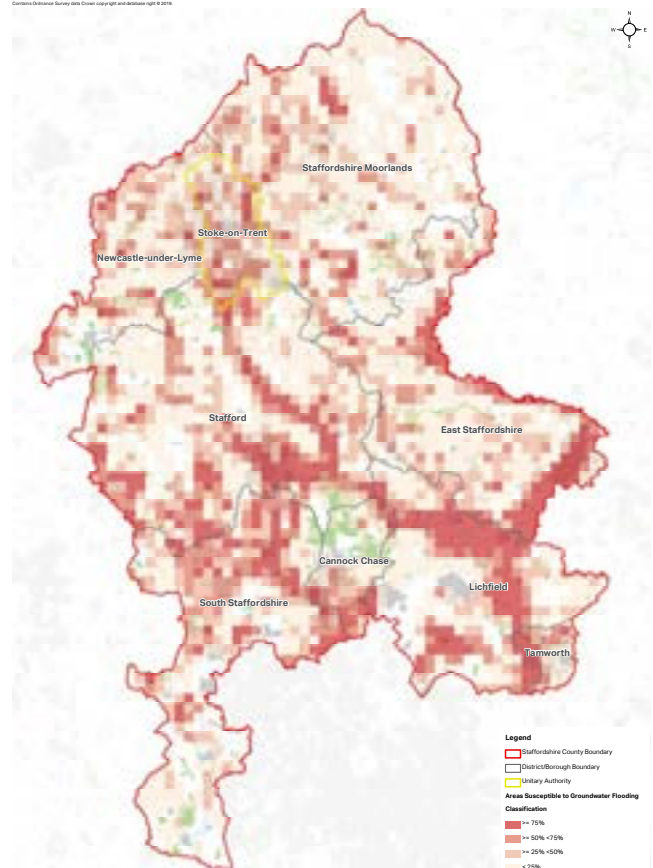
It should be noted that a number of the planned schemes defined within the Waste Water chapter will also have flood risk benefits, as a function of managing sewer flooding.

Figure 4.28
Historic Flood Risk map



Source: Staffordshire County Council / Environment Agency

Figure 4.29
Areas Susceptible to Ground Water Flooding



Source: Staffordshire County Council / Environment Agency

KEY FINDINGS

- In Staffordshire there are 10,600 properties at risk during a 1% annual exceedance probability fluvial flood event and an equivalent of 100 properties in Stoke-on-Trent;
- A number of formalised flood defences have been implemented across Staffordshire;
- Staffordshire County Council have developed an Action Plan for management of flood risk and future investment, outlined in the Staffordshire LFRMS; and,
- Additional investment will be required from Local Authorities, Utility Providers, Staffordshire County Council and the Environment Agency to manage flood risk into the future, considering the challenges posed by future growth and climate change.

Figure 4.30

Risk of flooding

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Source: Staffordshire County Council / Environment Agency

DRAINAGE



Staffordshire

11,700

properties at risk from Pluvial flooding

CURRENT SITUATION

Staffordshire County Council is a Lead Local Flood Authority (LLFA) as stipulated under the Flood and Water Management Act 2010. Shropshire Council and Staffordshire County Council have a collaborative working agreement with regard to fulfilling LLFA duties. Stoke-on-Trent City Council (Unitary Authority) is also a Lead Local Flood Authority for the city.

In accordance with the National Planning Policy Framework and under Schedule 3 of the Flood and Water Management Act (2010), following consultation with Defra in 2014, LLFAs were given responsibility to provide advice on Sustainable Drainage Systems (SuDS) for new developments to the Local Planning Authorities, as part of the wider planning application approval process.

Under this arrangement, LLFAs act as a statutory consultee in the planning process for major developments (as defined under The Town and Country Planning (Development Management Procedure) (England) Order 2015 and reproduced within the SuDS Handbook, which have surface water drainage implications. LLFAs also promote their involvement in early pre-application discussions, to ensure SuDS are fully integrated into final designs.

In 2017, Staffordshire developed a SuDS Handbook which sets out the role of SuDs in achieving sustainable development across LLFAs in the West Midlands, including Black County Authorities; Herefordshire Council; Shropshire Council; Staffordshire County Council; Stoke-on-Trent City Council; and, Telford and Wrekin Council.

EXISTING INFRASTRUCTURE CAPACITY AND ISSUES

The Environment Agency and Defra have identified the West Midlands as one of the ten Indicative Flood Risk Areas (IFRA) across England. The southern edge of South Staffordshire District Council and Lichfield District Council are included in the West Midlands IFRA. The Risk of Surface Water Flooding across Staffordshire is shown in [Figure 4.31](#).

Across Staffordshire there are approximately 11,700 properties at risk of surface water flooding as a result of a 1 in 100 year event (1% AEP). During the 2007 and 2012 floods, surface water flooding was exacerbated as a result of saturated soils and receiving drainage systems having insufficient capacity to cope with additional flow. Across Staffordshire, surface water flooding is influenced through complex interactions between watercourses, overland flow paths, groundwater springs (such as in South Staffordshire yet this has not been a major contributing factor) and piped drainage systems.

Staffordshire's Local Flood Risk Management Strategy (LFRMS), identifies the top 10 communities in both urban and rural locations at risk of flooding from surface water and small watercourses, as demonstrated below in [Tables 4.30](#) and [4.31](#).

Table 4.30

Communities in Rural Locations at Risk of Flooding from Surface Water and Small Watercourses

Rural settlement	Properties at risk	District / Borough
Barton-under-Needwood	150	East Staffordshire
Armitage	129	Lichfield
Gnosall	97	Stafford
Whittington near Lichfield	79	Lichfield
Tutbury	69	East Staffordshire
Brewood	66	South Staffordshire
Endon	58	Staffordshire Moorlands
Leekbrook	53	Staffordshire Moorlands
Waterhouses	49	Staffordshire Moorlands
Forsbrook	45	Staffordshire Moorlands / Stafford

Source: Staffordshire County Council

Table 4.31

Communities in Urban Locations at Risk of Flooding from Surface Water and Small Watercourses

Urban settlement	Properties at risk	District / Borough
Cannock	1,292	Cannock Chase
Burton upon Trent	1,021	East Staffordshire
Tamworth	920	Tamworth
Lichfield	760	Lichfield
Rugeley	729	Cannock Chase
Stafford	643	Stafford
Newcastle-under-Lyme and Silverdale	632	Newcastle-under-Lyme
Burntwood	620	Lichfield
Perton	336	South Staffordshire
Biddulph	229	Staffordshire Moorlands

Source: Staffordshire County Council

On a localised scale, the use of SuDS is governed by site characteristics such as geology, topography, proximity to aquifers, susceptibility of underlying strata to pollution and availability of space within the development site boundary. Staffordshire largely comprises rock formations from three geological periods: Carboniferous (i.e. coal, millstone and limestone groups); Permian (sandstone); and, Triassic (mudstone and sandstone).

Guidance from The British Geological Survey identifies that across Staffordshire the suitability of the subsurface for infiltration SuDS is as follows:

- Compatible for infiltration SuDS: 18%
- Probably compatible for infiltration SuDS: 19%
- Opportunities for bespoke infiltration SuDS: 37%
- Very significant constraints indicated: 26%

Key management themes across the different authorities tend to focus on the installation of SuDS in new development and retrofitting of SuDS at existing development, where feasible.

Similarly, in areas such as East Staffordshire Borough Council, significant areas are heavily susceptible to groundwater flooding, which must factor into the choice of SuDS used.

The use of a SuDS 'management train' should be implemented as follows: Prevention, Source Control, Site Control and finally Regional Control. However, each planning application will require its own detailed evaluation to determine the best SuDS solution. Infiltration SuDS can be installed where ground conditions are suitable.

KEY FINDINGS

- Surface water flooding is considered to be a major concern across Staffordshire;
- Across Staffordshire, surface water flooding is influenced through complex interactions between watercourses, overland flow paths, groundwater springs and piped drainage systems;
- Across Staffordshire there are ~11,700 properties at risk of surface water flooding as a result of a 1 in 100 year event (1% AEP);
- Early consideration of SuDS integration (i.e. through pre-application planning advice) will allow for multiple social, environmental and economic benefits to be realised, including cost-effective design solutions;
- Future management, maintenance and safety elements of SuDS systems will need to be addressed at an early stage to ensure responsibilities and resources are sufficient to meet long-term needs;
- The installation of SuDS at new development and the retrofitting of SuDS across existing developments (where feasible) will be essential in order to deliver sustainable development;

- The SuDS 'management train' (as part of the SuDS Handbook) should be adhered to when designing drainage systems;
- Allowances for climate change and urban creep should be accounted for with surface water drainage design calculations; and,
- SuDS can contribute to the delivery of 'Good Urban Design' (as per the SuDS Handbook).

FUTURE REQUIREMENTS TO MEET GROWTH TO 2038

There are two projects listed on the Environment Agency's Flood and Coastal Erosion Risk Management (FCERM) Programme for England which relate to surface water management in Staffordshire & Stoke-on-Trent. These are:

- Weston Coyney, Stoke-on-Trent, Surface Water Flood Alleviation Scheme (Stoke-on-Trent City Council)
- Perton, Surface Water Flood Alleviation Scheme (Staffordshire County Council)

The following projects in [Table 4.32](#) have been identified more widely (as per the current Infrastructure Delivery Plans) relating to surface water management and drainage.

Specifically within Stoke-on-Trent, £3.1 million has been allocated for flood risk management projects, including improvements to reduce surface water flooding in:

- Bagnall Road, Milton (2018/19);
- Scotia Road, Tunstall (2019/20 – 2020/21);
- Blurton Road, Blurton (2021-22 – 2022/23); and
- Campbell Road, Boothen (2018/19).

As well as the individual schemes listed, the programme also includes £180,000 for highway drainage works and £456,000 for watercourse and sustainable drainage system works.

COSTS AND FUNDING

Based upon information received from SCC and the Environment Agency, the following costs and funding have been identified for Flood Risk and Drainage projects:

Cost = £73,100,000

Estimated Funding Gap = £30,990,000

Table 4.32

Identified Surface Flooding Projects in Staffordshire

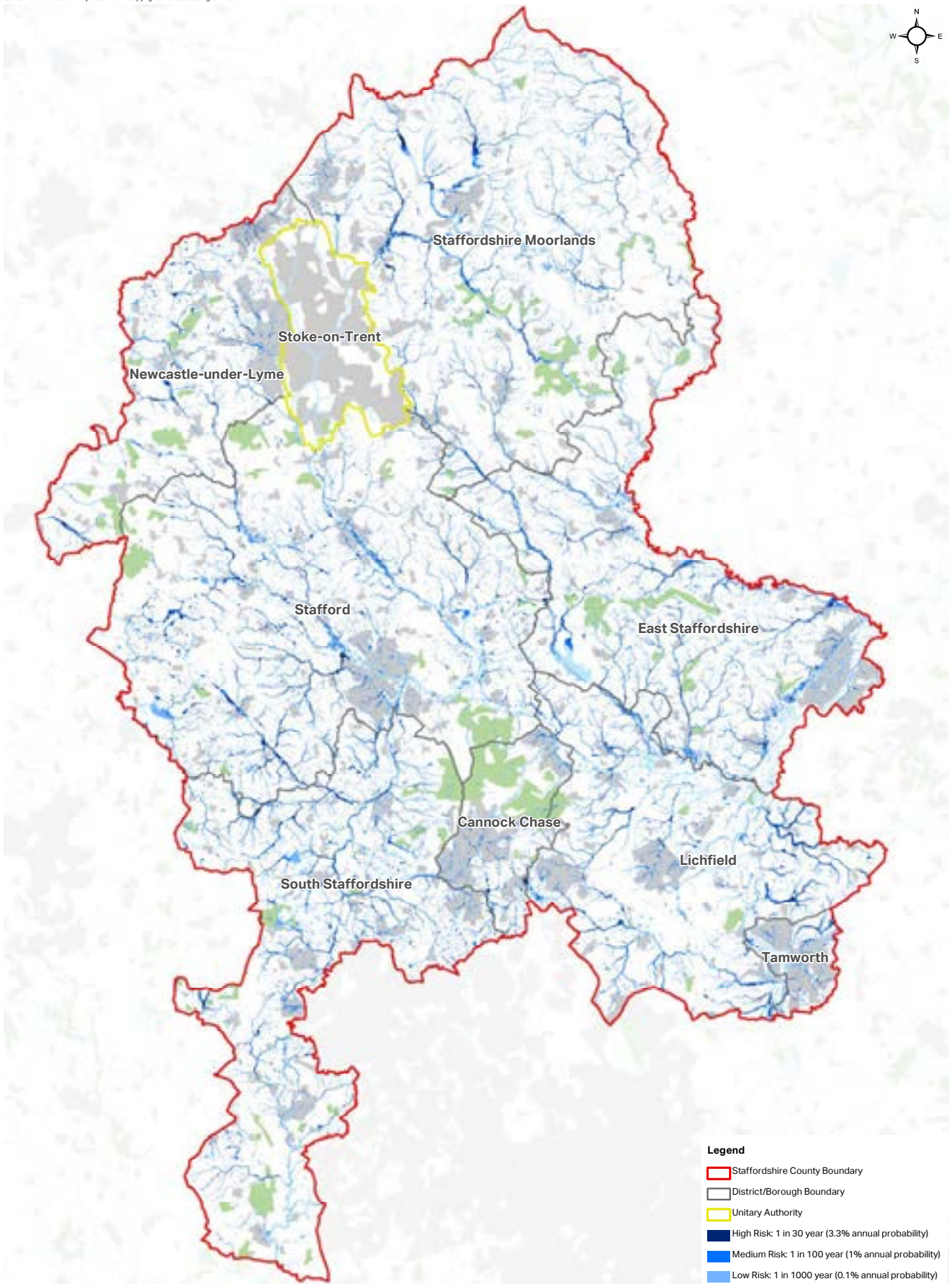
Local Authority	Description of Scheme	
Cannock Chase	Critical, specific catchment-wide requirements (including SuDS) which are detailed in the SFRA and Surface Water Management Plan (SWMP). To be provided as part of development schemes.	
Lichfield	South of Lichfield SDA Cricket Lane SDA Deans Slade SDA East of Lichfield SDA East of Burntwood Rural Areas	Provision of SuDS and accompanying sustainable management strategy for maintenance.
South Staffordshire	Huntington: Scheme to prevent flooding around Heathbank Drive/Teddesley Way/A34 in Huntington (including potential storage and overland flow management).	
	Perton: Proposed scheme to address flooding issues.	
Staffordshire Moorlands	Brown Edge: Measures required to manage surface water runoff from agricultural land	
	Biddulph: Measures to mitigate the effects of surface water flooding.	
Tamworth	A5: Balancing ponds	
	Ashby Road: Remedial work required due to ageing land drainage system	
	Dunstall Lane, Ventura Park: Roadside ditch requires work. The requirements and responsibilities associated with this work are uncertain.	
	Emberton Way and Whitley Avenue, Amington Glascote Road/Neville Street Hedgeing Lane, Wilnecote Jonkel Avenue, Tamworth Kettle Brook culverts Orchard Street	Work required on ageing land drains.
	Lichfield Road Industrial Estate: Work required on land drainage, particularly debris problems.	

Source: Staffordshire County Council; Staffordshire district and borough's Infrastructure Development Plans

Figure 4.31

Risk of Surface Flooding

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Source: Staffordshire County Council

05

POSSIBLE FUNDING SOURCES FOR THE IDENTIFIED SCHEMES

FUTURE FUNDING AND DELIVERY

FUNDING IS THE BIGGEST RISK TO THE DELIVERY OF INFRASTRUCTURE PROJECTS. THE CURRENT FUNDING ENVIRONMENT IS COMPLEX AND IS BEING CONSTANTLY RE-SHAPED. CLOSING THIS FUNDING GAP IN STAFFORDSHIRE & STOKE-ON-TRENT WILL REQUIRE A BROADER AND MORE SOPHISTICATED APPROACH TO INFRASTRUCTURE FINANCING THAN CURRENTLY EXISTS

There is a significant gap between the cost of the infrastructure Staffordshire & Stoke-on-Trent is likely to need by 2038 and the funding expected to be available to deliver it.

This section explores the traditional and emerging sources of funding for the infrastructure required in Staffordshire & Stoke-on-Trent and outlines emerging opportunities which may help to fill the significant funding gap.

Funding is the biggest risk to delivery, so local authorities and infrastructure providers will need to work together to explore every option to secure the necessary funding.

This section sets out the three usual sources for funding infrastructure:

1. Public sector funding – ultimately declining
2. Private sector funding – already limited
3. Developer contributions – limited by land values

This section also sets out a range of potential alternative options to secure funding for the infrastructure needed, for consideration by Staffordshire & Stoke-on-Trent local authorities.

These will need regular review to take account of changing circumstances

Total Secured Funding: **£1,044,580,000**

Total Infrastructure Costs: **£4,270,730,000**

Total Expected Funding: **£1,422,890,000**

Total Funding Gap: **£1,803,260,000**

% of Infrastructure Funded: **58%**

The funding situation outlined in this section reflects current knowledge of approaches to the delivery and funding of infrastructure. However, an important point to note is that over the document time period (to 2038) at least three general elections will take place. This makes it difficult to predict the policy towards various types of infrastructure (health, education, transport etc.) over the next 20 years.

To illustrate this point, 12 years ago, a local education authority planning for additional secondary school needs in 2018 would have been unaware of the forthcoming creation and subsequent abolition of the Building Schools for the Future programme and the introduction of Academies and Free Schools. Staffordshire & Stoke-on-Trent local authorities can only work with what is currently known which highlights the need for flexibility – essential to accommodate the inevitable changes to delivery and funding over the planning period.

5.1 ORGANISATIONS WITH ACCESS TO PUBLIC FUNDING

AS IDENTIFIED IN EARLIER CHAPTERS THERE ARE A WIDE RANGE OF ORGANISATIONS RESPONSIBLE FOR THE DELIVERY AND FUNDING OF INFRASTRUCTURE WITHIN STAFFORDSHIRE & STOKE-ON-TRENT. THIS SECTION PRESENTS AN OVERVIEW OF THESE ORGANISATIONS AND THE MAIN SOURCES OF PUBLIC FUNDING BY BROAD THEME.

Since 2011 all local authorities in the UK have seen year on year reductions in their funding from Central Government. The influence of local authorities on infrastructure funding varies considerably depending on the role played by Central Government and the private sector in each segment of the infrastructure market. This will reflect current and evolving policy and practice over which types of funding mechanisms are deemed most appropriate for different types of infrastructure. For instance, much social infrastructure, including the education, health, and general community facilities, is the responsibility of the local authority with funding provided by both Central Government grants and local taxation. These services are public goods which meet social objectives that cannot feasibly be paid for by market mechanisms, other than where a proportion of funding is required from a developer through S106 as a result of the granting of planning permission.

On the other hand, some forms of infrastructure are delivered by a mixture of non-governmental public bodies and private companies within strongly regulated markets (e.g. rail) and most utilities are delivered in semi competitive markets by highly regulated private companies.

This section provides a summary of these various roles and responsibilities with a focus on the mainstream public grants for capital funding for local infrastructure from the public sector as listed in [Table 6.1](#) and described in this section.

TRANSPORT

Transport infrastructure funding comes from a range of sources depending on the nature of the asset and its strategic status.

Roads & local strategic projects

Capital funding for strategic roads is the responsibility of Highways England (HE), a publicly owned corporation since April 2015. Within Staffordshire & Stoke-on-Trent, Highways England is responsible for the A5, A34, A35, A50, A500, M6, and M54.

Highways England reports to the Department for Transport and has responsibility for managing the Strategic Road Network in England. It operates a variety of information services, liaises with other government agencies as well as providing staff to deal with incidents on its roads.

Highways England's responsibilities most relevant to the Strategic Infrastructure Plan include undertaking large scale improvements through a programme of major schemes, carrying out routine maintenance of roads, structures and technology to make the network safe, serviceable and reliable and making sure traffic can flow easily on major roads and motorways.

Midlands Connect investment decisions are prioritised through HE's cyclical Road Investment Strategy (RIS) which sets out a long-term programme for UK motorways and major roads. Local Authorities need to lobby and produce the business case for investment to Central Government / HE to include projects for delivery within the RIS. RIS2 follows on from RIS which covered 2015 to 2020. Between 2020 and 2025, the RIS2 will see £25.3 billion invested in major schemes to enhance, renew and improve the network nationwide.

Local roads in the county are the responsibility of the two highways and transportation authorities: Staffordshire County Council and Stoke-on-Trent City Council. These transport authorities are responsible for planning and delivering the majority of the transport-related infrastructure to support development proposals in each local authority within Staffordshire & Stoke-on-Trent.

Other local transport projects to support economic growth and development have less well defined funding and delivery processes. Aside from local authority capital investment budgets, Local Enterprise Partnerships are the main public source of capital grant funding through the Local Growth Deals and Large Local Major Schemes Fund. The Department for Transport (DfT) also allocates funding via competitive bid processes to specific types of project; for example the recent Pinch Point Fund.

The main source of capital funding for local roads is through Councils' borrowing although other instruments are available to local authorities to finance transport investment, e.g. the Public Works Loan Board. In addition, funding can be secured through business rate retention and municipal bonds. These are presented in Section 5.3.

Rail

The rail network is the responsibility of Network Rail (an arms-length public body). Network Rail owns the infrastructure, including the railway tracks, signals, overhead wires, tunnels, bridges, level crossings and most

stations, but not the passenger or commercial freight rolling stock. Although it owns over 2,500 railway stations, it manages only 19 of the biggest and busiest of them, all the other stations being managed by one of the various train operating companies.

Projects for capital investment in the local rail network need to meet the Governance for Railway Investment Projects (GRIP) process to be planned / funded within a 5-year Control Period. Similarly to the strategic road network, a sound business case needs to be presented for projects to be included in a Control Period. The current delivery plan period covers 2014 to 2019.

EDUCATION

Capital funding for primary and secondary education is raised from Local Authority resources, developer contributions and the Basic Need Central Government grant scheme to ensure that Local Authorities can provide adequate school spaces for the populace.

Staffordshire County Council sets aside a capital allocation for education infrastructure which is expected to deliver new early years, primary and secondary school places within its boundaries. Over the next 20 years, several primary and secondary schools will be needed to support the planned housing growth in Staffordshire & Stoke-on-Trent.

The Priority School Building Programme (PSBP) has also been in place since 2011, replacing the previous Building Schools for the Future Programme. PSBP provides funds via the Education Funding Agency (EFA) either in the form of a capital grant or through a private finance contract. Schools across England were invited to bid for the fund and awards were allocated to those deemed most in need of rebuilding or maintenance.

HEALTH

Depending on the service, NHS commissioning is either undertaken by local Clinical Commissioning Groups (CCGs) or by NHS England regional groups. Most healthcare services are commissioned by the CCG, but primary care services and other specialist services, such as offender healthcare, are commissioned by NHS England.

The NHS recognises that there is no single geography across which all services should be commissioned: some local services can be designed and secured for a population of a few thousand, whilst for rare disorders, services need to be considered and secured nationally. In Staffordshire & Stoke-on-Trent therefore, there is no single commissioning body that adheres to the County boundary; rather six CCGs cover the area. The CCGs and NHS England receive direct funding for commissioning from the Government. In some instances they may also be recipients of developer contributions or other sources of local funding.

NHS Trusts and Foundation Trusts are key providers in most health systems and will utilise a portfolio of facilities, some of which will be owned and others leased from a variety of organisations. They will also have access to funds, sometimes self-generated or as a result of bids to the centre. All of these organisations, led by CCGs, have developed local health economy Strategic Estates Plans over the last year. Together with the emerging Sustainability and Transformation Partnerships (STPs) these are identifying the capital investment likely to be needed in the coming years. Following the Health and Social Care Act in 2013 and the changes to governance, commissioners generally no longer have specific estate functions. Strategic estates planning support is therefore provided by Community Health Partnerships and NHS Property Services, organisations wholly owned by the Department of Health, which have complementary roles in the health system providing actual facilities and technical expertise.

Adult social care is means tested (unlike NHS services which are free at the point of use). This means that approximately 75% of care is self funded and approximately 25% is funded by the local authority through council tax, and currently partly supported by the Revenue Support Grant, the Social Care precept and the Better Care Fund. The Better Care Fund is intended to help meet Government objectives for more social care to take place outside of hospitals, reducing the burden on admissions and readmissions.

EMERGENCY SERVICES

Police service

The main source of funding for the police force is the Central Government grant made available through the annual Home Office Police Grant Report. Police and Crime Commissioners can also raise additional revenue funding through council tax precepts. All police forces in the UK have been subject to reductions in funding in recent years. The Government has consulted on proposals for new funding arrangements for police forces in England and Wales. It is generally accepted that the existing formula is no longer appropriate and the Government wants to replace the existing funding formula with a simplified formula.

Fire and rescue

The Fire and Rescue Service generally provides its services for free, although there are some special services that can be charged for, and some additional services that can be paid for. The service is free to the end user in the case of an emergency. Funding for the fire service comes from two principal sources: a Central Government grant, and a levy (precept) on the local council tax. From 2010-11 to 2015-16, funding for fire and rescue authorities has fallen for stand-alone authorities by 28%. Once council tax and other income is taken into account, the average reduction in total income ('spending power') is 17% in real terms.

Ambulance services

The ambulance service is the emergency response wing of the National Health Service. The ambulance service across the UK has two main functions: an accident and emergency

paramedical function, and the Patient Transport Service function which transfers immobile patients to and from their hospital appointments. Services are provided by the West Midlands Ambulance Service (WMAS) across Staffordshire & Stoke-on-Trent. Funding for this organisation is from the National Health Service rather than Central Government (in contrast to the other two emergency services) and has experienced reductions in overall funding in recent years.

COMMUNITY SPORTS AND LEISURE

Most community services, including the running and development of leisure centres, museums and galleries, and other local services are the responsibility of the District and Unitary Authorities within Staffordshire & Stoke-on-Trent. The management of libraries is under the jurisdiction of Staffordshire County Council for those that fall within the boundary of the Districts, with Stoke-on-Trent managing their own.

Local Parish and Town Councils have powers to provide some facilities themselves, or they can contribute towards their provision by others. There are large variations in the services provided by parishes, but they can include: support and encouragement of arts and crafts; provision of community and village halls; recreation grounds, parks, children's play areas, playing fields and swimming baths; cemeteries and crematoria; public conveniences; provision of cycle and motorcycle parking; acquisition and maintenance of rights of way. Parish Councils also have the power to raise money locally through the precept, the parish council's share of the council tax. This is an increasingly important source of local funding which is available to support valued local services. The precept demand goes to the billing authority - the local authority - which collects the tax for the Parish Council. Beyond their budgets, Parish councils may also secure support from a range of specialist organisations such as Sports England, the Arts Council or the Lottery Fund.

GREEN INFRASTRUCTURE

Natural England is the non-departmental public body responsible for providing advice to ensuring that England's natural environment, including its land, flora and fauna, freshwater and marine environments, geology and soils, are protected and improved. Natural England is promoting the concept of green infrastructure as a way to deliver a wide range of benefits for people and the natural environment together. It believes that green infrastructure should be delivered via the spatial planning system, as an integral part of new development everywhere, and also forms a key part of proposals to regenerate existing urban areas.

UTILITIES

Utilities infrastructure delivery and funding of it is largely the responsibility of the relevant utility companies, with connections to services for new sites also funded by site developers. For future development, it will be important to clarify the procedure by which these utility companies consider development sites and how these are included within their own programme and investment strategies.

Utility Providers are regulated by Ofgem and Ofwat; in principle, neither regulator supports installing new infrastructure on a speculative basis, rather they are reactive to providing supply services to new developments once a scheme has received consent. However, if a robust business case that gives a good level of certainty that development will take place in a definite timescale is put to the Regulators, advance funding may be approved. This is an unsatisfactory situation and changes in the way utility services are provided is an important issue to consider further.

It is important to highlight the fact that Water Companies will soon commence the preparation of the next Water Resource Management Plans (WRMP) and Business Plan. Local Plan growth targets and the timing of sites will be a key source of information to inform these plans.

Water providers, as natural monopolies, are obligated in the requisitioning or provision of self-lay connections by developers or their contractors and subject to regulation under the 1991 Water Industry Act. This stipulates that they must provide necessary infrastructure and supply given the attainment of certain conditions and costs by the developer. The main water suppliers in Staffordshire & Stoke-on-Trent are Severn Trent Water and South Staffs Water, and waste water and sewerage services are provided by Severn Trent Water and United Utilities. There is currently no direct competition for supply in the water market and switching providers is not possible.

Upgrades to water recycling centres (also referred to as sewage or wastewater treatment works) are required to provide for additional growth and wholly funded by the water companies through their Asset Management Plan. Foul network improvements are generally funded/part funded through developer contribution via the relevant sections of the Water Industry Act 1991. The cost and extent of the required network improvement are investigated and determined when the service company is approached by a developer and an appraisal is carried out. Similarly water infrastructure provision will be dependant on location and scale of the development and contributions for upgrades for strategic schemes will be obtained through provisions in the Water Industry Act 1991.

Waste and refuse collection is the responsibility of the district and unitary authorities. These services are largely contracted out to the private sector and funded from local budgets. Staffordshire County Council and Stoke-on-

Trent City Council have responsibility for domestic waste disposal. Commercial waste is dealt with by the private sector.

FLOOD PROTECTION & DRAINAGE

Staffordshire County Council (in collaboration with Shropshire Council) and Stoke-on-Trent City Council are known as Lead Local Flood Authorities (LLFAs). This means that they are able to receive Central Government funding for Flood and Coastal Erosion Risk Management (FCERM). Funding can be delivered via a range of routes, including via DEFRA, MHCLG, the Environment Agency, or other bodies that have been devolved funding responsibilities such as LEPs.

In return, the LLFAs have a range of responsibilities including to: prepare and maintain a strategy for local flood risk management in their areas, coordinating views and activity with other local bodies and communities through public consultation and scrutiny, and delivery planning; maintain a register of assets –i.e. physical features that have a significant effect on flooding in their area; investigate significant local flooding incidents and publish the results of such investigations; provide statutory planning advice for establish approval bodies for design, building and operation of Sustainable Drainage Systems (SuDS) in relation to major (10 plus homes) planning applications; issue consents for altering, removing or replacing certain structures or features on ordinary watercourses; and play a lead role in emergency planning and recovery after a flood event.

Internal Drainage Boards (IDBs) are responsible for managing water levels in low-lying areas. They are independent bodies with elected members and Local Authority representatives, funded by drainage levies raised on Local Authorities and local land owners.

FUTURE OUTLOOK FOR PUBLIC FUNDING

The Local Government Finance Act came into force in April 2013, giving Local Authorities the power to retain up to half of the proceeds of any growth in business rates income within their jurisdiction. The devolution of this key funding source came against a background of austerity budgets since 2011 in which Central Government grant funding to Local Authorities, via the Revenue Support Grant, has been sharply reduced year on year.

Over this same period a devolution agenda has also been followed by Government, through which many traditional sources of funding to Local Authorities were pooled into the Single Local Growth Fund and reallocated to Local Enterprise Partnerships as part of Local Growth Deals. The implication of these changes means that Local Authorities have reducing budgets and have to work with these new systems and mechanisms in order to find and apply for

funding to deliver services and new infrastructure. There are changes however since the Autumn Statement 2015, when the Government signalled a change in the local government funding settlement, with the full localisation of business rates (national non-domestic rates) by 2020, compensating for the phasing out of the Revenue Support Grant - delivering a 13.1% real increase in local government funding by 2020.




The picture of public funding for infrastructure in England is an evolving one which will need to be monitored constantly in order to ensure that local authorities remain aware of the opportunities available to finance their infrastructure requirements.





The current trend towards reducing public resources with the ending of the Government's Revenue Support Grant in 2020/21, the use of competitive funds and a greater reliance on private sector sources is likely to continue. On the other hand some structural changes may occur as a result of emerging Devolution deals and the exit of the UK from the EU.

EU funding has been a significant component of locally determined delivery of employment and skills and business support. The LGA fears that due to delayed sign offs by government, only 50% of the £5.3 billion will be agreed before the UK leaves the EU - leaving a shortfall in the delivery of EU Structural and Investment Fund Plans.

Table 5.1

Overview of funding responsibilities and major public funding streams for capital investment in infrastructure

INFRASTRUCTURE THEMES	MANAGEMENT BODY	REMIT	PUBLIC FUNDING STREAMS
 TRANSPORT			
Strategic road network	Highways England	Operates, maintains and improves England's motorways and major A roads. In Staffordshire & Stoke-on-Trent, Highways England's responsibility include the M6, M6 Toll, M54, A50, A5, A38, A449 and A500. Highways England Delivery Plan 2015-2020, published in response to the Government's Road Investment Strategy RIS2, sets out Highways England's main activities, strategic outcomes and describes how it will deliver the Investment Plan.	Highways England, set for 2015-2020
Local road network & transport projects	Staffordshire County Council & Stoke-on-Trent City Council	The County Council and City Council are responsible for the delivery of the Local Transport Plan. Local authorities' responsibilities include: traffic management improvements; tackling congestion; safer roads (including casualty reduction); public Rights of Way improvements; local road maintenance.	Local authority budget; DfT competitive funds e.g. Pinch Point Fund; Local Highways Maintenance Challenge Fund.
	Stoke-on-Trent and Staffordshire Local Enterprise Partnership (LEP)	Funding for major local transport schemes was devolved to LEPs as part of the Single Local Growth Fund in 2015. In Staffordshire & Stoke-on-Trent a number of transport projects have been identified in the Stoke & Staffs LEP Growth Deal.	Local Growth Deal
Rail	Network Rail	Network Rail is the monopoly owner and operator of the national rail network and its assets – such as track, bridges and signalling. Network Rail's income comes from three sources: direct grants from the Department for Transport and Transport Scotland; charges for track access to train operating companies; income from commercial property.	Government funding to Network Rail is allocated for a five-year period for the CP5 (2014 to 2019). MOU agreed between NR and DfT post CP5 to set out the governance around delivering future enhancements.
Integrated transport (buses, cycling, walking)	Staffordshire County Council and Stoke-on-Trent City Council	The County Council and City Council are responsible for the delivery of the Local Transport Plan. Local authorities' responsibilities include: cycling schemes; walking routes; passenger transport improvements.	Local authority budget; DfT competitive funds e.g. Access Fund for Sustainable Travel
	LEP	The Stoke & Staffs LEP Growth Deal includes some cycling improvement schemes.	Local Growth Deal
	Bus companies	The area is served by a number of bus and coach companies providing part-subsidised services.	n/a
 EDUCATION			
Early years & childcare, primary education, second education, sixth form education	Staffordshire County Council & Stoke-on-Trent City Council	Local authorities have a duty to ensure that there are sufficient school places in their area. The Education Funding Agency provides grants to local authority maintained schools and academy trusts for building maintenance, refurbishment and rebuilds.	A number of funding streams are provided by the Department for Education / Education Funding Agency for capital investment in schools: Basic Need capital allocations, school condition funding, Priority School Building Programme.
Higher Education (HE), Further Education (FE), Adult learning	Colleges, universities, education providers	Investment in FE and HE is decided by Central Government and education providers. The capital programme is also supporting projects for further education colleges that will deliver skills centres focused on the teaching of Science, Technology, Engineering and Maths.	The Skills Capital Fund from the Skills Funding Agency for further education capital investment; the Higher Education Funding Council for England for higher education capital investment.
 HEALTH & SOCIAL CARE			
Primary care services	Clinical commissioning groups (CCGs), NHS Property Services, Community Health Partnerships	NHS England has the commissioning responsibility for primary care services. As part of this they provide some funding for improvement to premises and manage specific capital initiatives. Most significant funding is now secured from private equity either via public sector vehicles such as NHS LIFT and PPP or borrowing from private funds. In addition there are occasional primary care schemes that are funded by a partnership, social enterprise, or commercial enterprise.	NHS England (Estates and Technology Transformation Fund – competitive)
Hospitals & mental health	CCGs, NHS England, NHS Property Services, Community Health Partnerships	Services in these sectors are commissioned by local Clinical Commissioning Groups, NHS England and specialist national groups. Some central capital funding is available for premises, IT and equipment replacement as well as from the two NHS property organisations, NHS Property Services and Community Health Partnerships. Foundation Trusts and non-NHS providers may borrow from private equity either via public sector vehicles such as Private Finance Initiatives (PFI), NHS Local Improvement Finance Trust (LIFT) programmes, Public Private Partnerships (PPP) or borrowing from private funds.	Department of Health programmes and a range of alternative funding sources

INFRASTRUCTURE THEMES	MANAGEMENT BODY	REMIT	PUBLIC FUNDING STREAMS
Adult social care, public health and well-being	Staffordshire County Council & Stoke-on-Trent City Council	Under the Care Act 2014 local authorities have new responsibilities in social care. The Act makes clear that local authorities must provide or arrange services that help prevent people developing needs for care and support or delay health deterioration and reduce the requirement for ongoing care and support. Local authorities also provide other health and well-being services e.g. related to smoking, weight management, family support and mental health.	Local authority budget; Better Care Fund; Social Care Precept, which allows Councils with Social Care responsibilities to increase council tax by an additional 2% to meet these new duties.
 EMERGENCY SERVICES			
Police service	Staffordshire Police	The funding for the police service comes from two main sources. Around two thirds of the police budget comes from a Central Government grant whilst the remaining one third is provided through the council tax as the policing precept.	Central Government, Staffordshire County Council, Stoke-on-Trent City Council
Fire service	Staffordshire Fire and Rescue Service	Funding for fire and rescue services comes from two main sources: a proportion of the council tax precept and Central Government grant	Central Government, Staffordshire County Council, Stoke-on-Trent City Council
Ambulance service	West Midlands Ambulance Service NHS Trust (WMAS)	Ambulance services are funded by NHS England through their commissioning arrangements, except for air ambulances which are charitably funded.	West Midlands Ambulance Service NHS Trust (WMAS)
 COMMUNITY, SPORTS & LEISURE			
Library services	Staffordshire County Council & Stoke-on-Trent City Council	Libraries within the boundary of the District authorities fall under the responsibility of Staffordshire County Council, whilst Stoke-on-Trent City Council, runs and manages their own library services.	Local authority budget
Community & youth services	Staffordshire County Council & Stoke-on-Trent City Council	Leisure Centres and sports facilities are managed by the district councils and unitary authorities from their own budgets.	Local authority budget, Sports England, Arts Council, Lottery Fund
Outdoor sports, parks & recreation	Districts / boroughs, parish councils	Staffordshire County Council funds the maintenance of the Country Parks. District councils and parishes also have responsibilities for local parks and recreation areas. Some areas of strategic environmental interest are under the responsibility of charities and public organisations.	Local authority budget and other potential sources of funding for specific projects e.g. Staffordshire Wildlife Trust, Environment Agency.
 UTILITIES & WASTE			
Energy	Gas network operators, UK power network	Utilities infrastructure delivery and funding is largely the responsibility of the relevant private utility companies with new connections to services also part-funded through site developers.	Private operators, although Central Government programmes may be available to encourage investment in renewable energy at local level.
Broadband	BT Open Reach and other Commercial Operators	A large share of the investment in broadband infrastructure has been implemented by commercial operators. The public sector is also providing funding in order to achieve 95% coverage of the population by 2017/18.	Central Government funding, EU match-funding
	Staffordshire County Council	The County Council is delivering capital investment in broadband infrastructure to support large scale commercial development including the installation of a Superfast broadband network, through Superfast Staffordshire.	Local Authority Budget
Water & waste water	Water companies	Water recycling centre (previously referred to as sewage or wastewater treatment works) upgrades required to provide for additional growth are wholly funded by the water companies through their Asset Management Plan. Foul network improvements are generally funded/part funded through developer contribution via the relevant sections of the Water Industry Act 1991. The cost and extent of the required network improvement are investigated and determined when the service company is approached by a developer and an appraisal is carried out. Similarly water infrastructure provision will be dependant on location and scale of the development and contributions for upgrades or strategic schemes will be obtained through provisions in the Water Industry Act 1991	n/a
Waste	Districts & Unitary Authorities	Waste and refuse collection is the responsibility of the Districts, County and Unitary Authorities. These services are largely contracted out to the private sector and funded from local budgets.	n/a
 FLOODING & DRAINAGE			
Flood risk	Staffordshire County Council & Stoke-on-Trent City Council	Staffordshire County Council and Stoke-on-Trent City Council are the organisations responsible for Flood and Coastal Erosion Risk Management (FCERM), receiving grant funding from Central Government and the Environment Agency.	Central government funding
Drainage	Internal Drainage Boards	Internal Drainage Boards (IDBs) are responsible for managing water levels in low-lying bodies. They are independent bodies with elected members and Local Authority representatives.	Drainage rates collected from agricultural land and buildings within the Internal Drainage District; Special Levies issued on District and Unitary Authorities within the Internal Drainage District; Contributions from the Environment Agency.

5.2 DEVELOPER CONTRIBUTIONS

IN RECOGNITION OF THE PUBLIC COSTS BORNE BY LOCAL AUTHORITIES IN PROVIDING INFRASTRUCTURE TO SUPPORT NEW DEVELOPMENTS, THE TOWN PLANNING PROCESS PROVIDES THE MEANS FOR DEVELOPERS TO CONTRIBUTE TO THE COST OF NECESSARY SUPPORTING INFRASTRUCTURE. THESE ARRANGEMENTS VARIOUSLY TAKE THE FORM OF PLANNING CONDITIONS, SECTION 106 AGREEMENTS BETWEEN LOCAL AUTHORITIES AND DEVELOPERS AND A COMMUNITY INFRASTRUCTURE LEVY (CIL).

SECTION 106 AGREEMENTS

Section 106 of the Town and Country Planning Act 1990 allows a LPA to approve a development proposal that would not otherwise be acceptable on planning grounds, on various conditions set out in agreements negotiated between local authorities and developers. These commonly include an obligation for developers to provide affordable housing (of various types and at various times) and to secure financial contributions and land from developers for all types of supporting infrastructure.

The Community Infrastructure Levy Regulations specify that Section 106 agreements can be concluded, only where such an agreement is:

- necessary to make the development acceptable in planning terms
- directly related to the development; and
- fairly and reasonably related in scale and kind to the development.

Section 106 agreements should be focused on specific measures to mitigate the planning issues which would otherwise lead to refusal of the planning application. Accordingly, funding received by an LPA under a Section 106 agreement must be spent on the infrastructure agreed to be delivered, pursuant to a developer contribution agreement.

COMMUNITY INFRASTRUCTURE LEVY

The Community Infrastructure Levy (CIL) is a fixed, tariff-based planning charge, which allows LPAs to require developers of particular types of development to pay a levy based on the size of the development (per square metre). In setting the CIL, the LPA must specify a list of projects or types of infrastructure which the CIL will fund. The levy is intended to recognise the costs to LPAs in providing infrastructure to support development. LPAs can determine whether or not to institute such a levy and the per square metre rates used for different development types. The National Planning Policy Framework recommends that, where possible, Community Infrastructure Levy rates should be developed alongside an LPA's Local Plan.

Since the relevant provisions of the Planning Act 2008 came into force in 2010, three LPAs in Staffordshire have adopted a CIL. Cannock Chase has a residential development charge of £40 per square metre and £60 per square metre for some retail developments. Lichfield charges between £14 and £160 per square metre, depending on the nature of the land use. Tamworth charges up to £68 per square metre for residential use, and up to £200 for retail use. These are illustrated in [Figure 5.1](#). The map does not show zone charging areas.

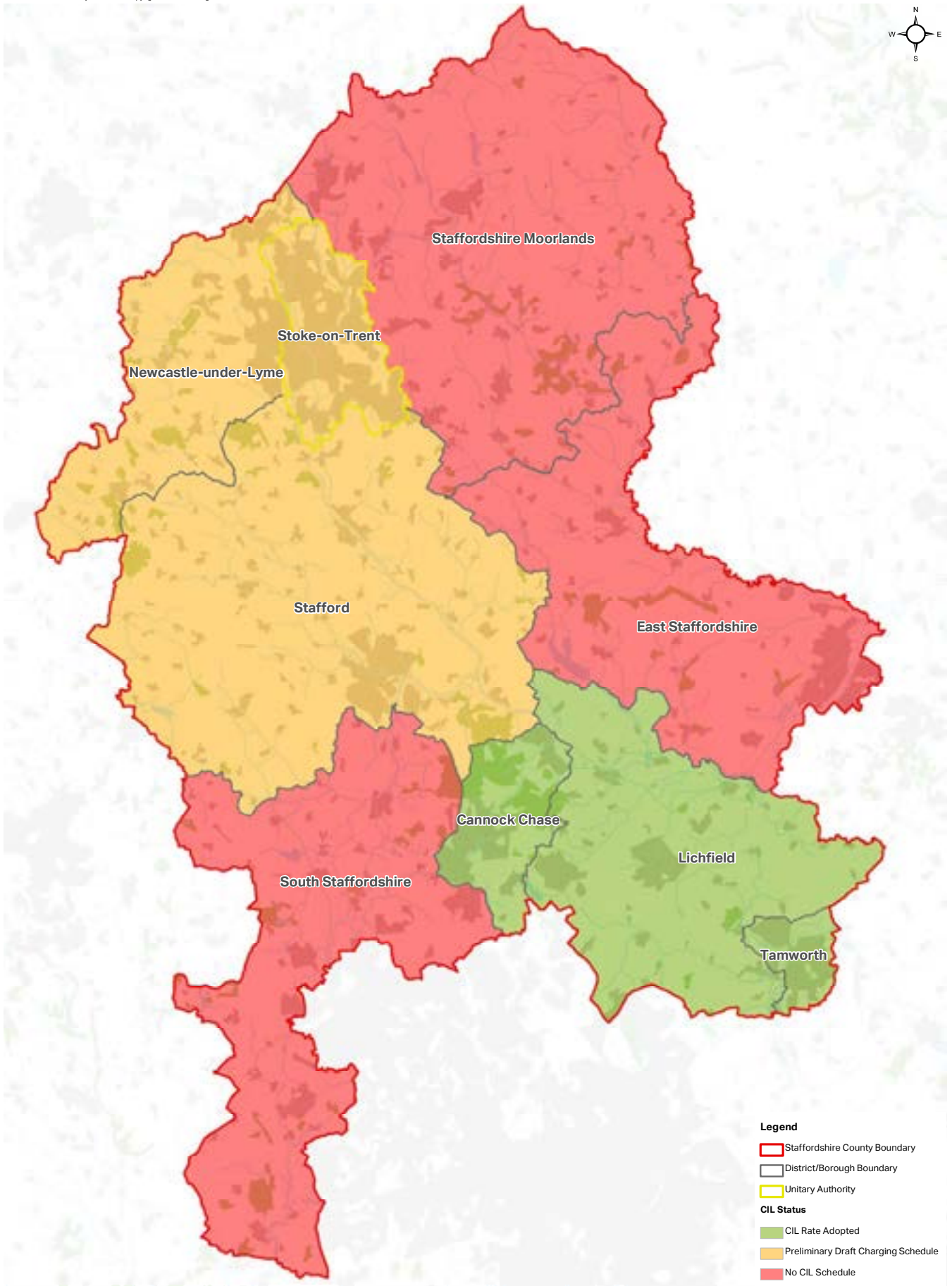


FIGURE 5.1- ADOPTED AND DRAFT RESIDENTIAL CIL RATES ACROSS STAFFORDSHIRE & STOKE-ON-TRENT

Source: Local Authority Published Draft and Adopted CIL Charging Schedules
It should be noted that the map does not show zone charging areas.

Relationship between CIL and Section 106

Prior to September 1st 2019 the Community Infrastructure Levy Regulations 2010 limited the number of Section 106 obligations that could be pooled to a single piece of infrastructure to five. Further, they set out that Section 106 and the Levy could not be used to fund the same infrastructure. The 2019 amendments to the regulations remove this restriction on pooling more than five planning obligations towards a single piece of infrastructure. This means that, subject to meeting the three tests set out in CIL regulation 122, charging authorities can also use funds from both the levy and Section 106 planning obligations to pay for the same piece of infrastructure regardless of how many planning obligations have already contributed towards an item of infrastructure.

The 2019 amendments introduce Infrastructure Funding Statements and remove regulation 123 lists. Authorities should set out in an infrastructure funding statement which infrastructure they intend to fund and detail the different sources of funding. The first Infrastructure Funding Statements need to be prepared by December 2020.

DEVELOPMENT VIABILITY

Any contribution by a developer to infrastructure (through an agreement) is dependent on the proposed development being commercially viable.

The VOA data represents an estimate of land values, prepared on a consistent theoretical basis, to support a comparison across Staffordshire. These estimates do not represent true land values and do not accurately indicate variation or conurbations within each local authority area.

The average price per hectare for residential land in each local authority in Staffordshire varies from £470,000 per hectare in Staffordshire Moorlands to £2,870,000 per hectare in Lichfield according to the Valuation Office Agency (VOA) 2017 estimates (Land Value Estimates for Policy Appraisal - May 2017 Values). The local authorities to the south of Staffordshire have the highest land values generally (with the exception of Cannock Chase), such as South Staffordshire having a high valuation at £2,205,000 per hectare. Conversely, areas to the north of the study area generally have lower land values (Staffordshire Moorlands, Newcastle-under-Lyme and Stoke-on-Trent). [Figure 5.2](#) illustrates the VOA land values for Staffordshire and Stoke-on-Trent.

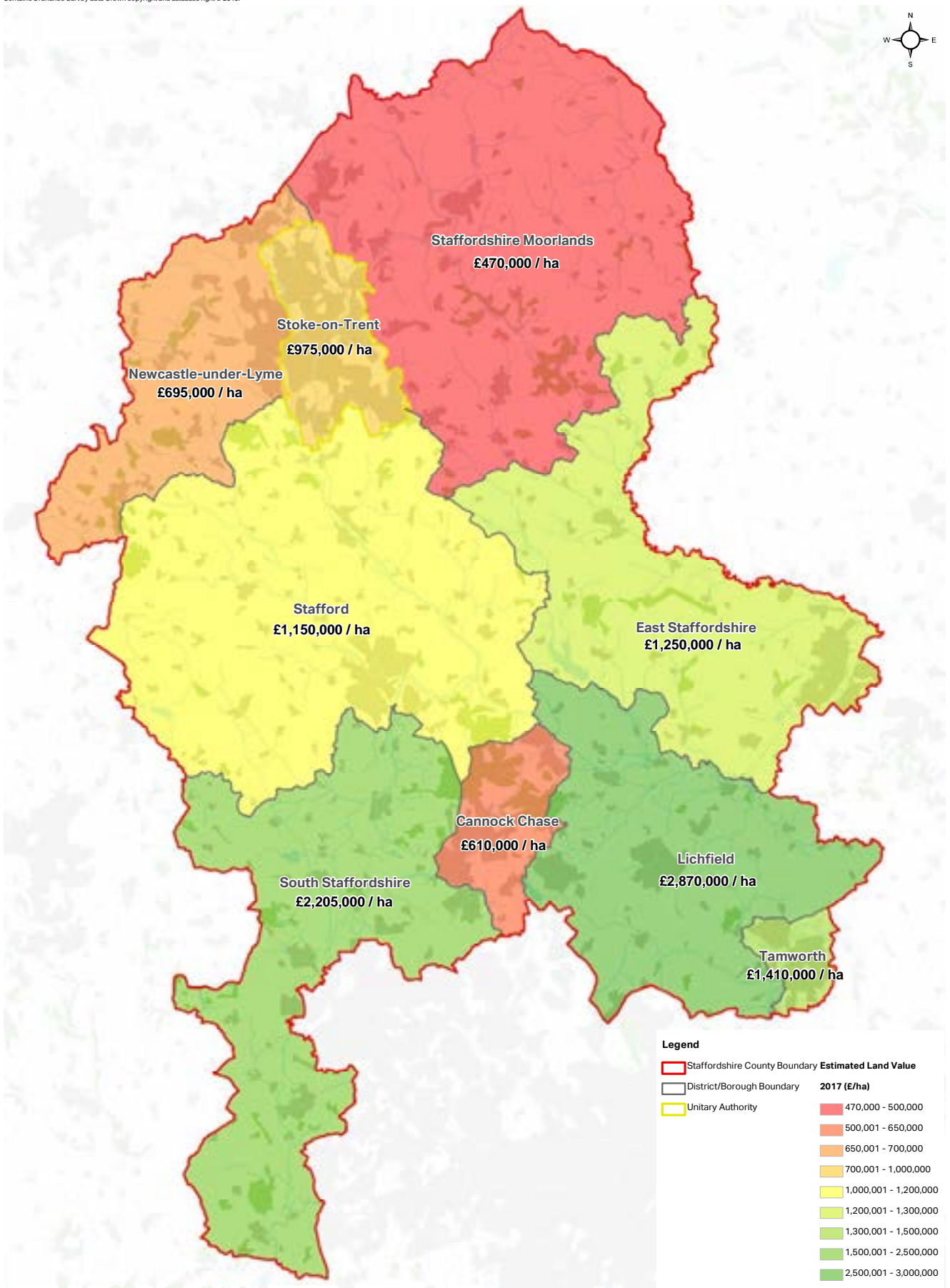


FIGURE 5.2 - RESIDENTIAL LAND VALUES ACROSS LOCAL AUTHORITY AREAS IN STAFFORDSHIRE & STOKE-ON-TRENT

Source: The Valuation Office Agency (VOA)

Further detailed local area land value analysis is available from local authority whole plan viability reports

5.3 GAP FUNDING OPTIONS FOR CONSIDERATION

GIVEN THE LIMITATIONS OF MAINSTREAM PUBLIC SECTOR FUNDING SOURCES AND DEVELOPER CONTRIBUTIONS TO FULLY FUND FUTURE INFRASTRUCTURE REQUIREMENTS ACROSS STAFFORDSHIRE & STOKE-ON-TRENT, CONSIDERATION MUST BE GIVEN TO ALTERNATIVE, MORE INNOVATIVE FUNDING MECHANISMS THAT ARE BEING DEVELOPED BY THE PUBLIC AND PRIVATE SECTORS.

This section provides an overview of current options for such alternative funding, drawing on the experience of local authorities across the UK. The options considered are divided into five categories within the analysis:

- Public funds
- Borrowing
- Borrowing against local revenue
- Local taxes and Levies
- Leveraging local authorities' own assets and resources
- Other sources of funding

A summary is provided in [Table 5.2](#).

It should be noted that funding sources evolve over time with emerging priorities and changes in regime at local, regional or national level, and it is not within the scope of this report to describe all potential funding sources. Rather, the key funding instruments of potential relevance to Staffordshire and Stoke on Trent's local authorities are explored, including a range of financial and market-based mechanisms.

PUBLIC FUNDS

EUROPEAN FUNDING AND SHARED PROSPERITY FUND

Prior to leaving the EU, the Stoke-on-Trent and Staffordshire LEP had secured European funds of £142m under the 2014-2020 EU SIF Programmes, which covered the European Regional Development Fund and European Social Fund. The LEP's EU Structural Investment Fund Strategy set out priority themes for investment, including: innovation; access to ICT; SME competitiveness, supporting low carbon; preserving the environment and promoting resource efficiency; and promoting employment, social inclusion and combating poverty as well as investing in education and skills. Following the UK's withdrawal from the EU, different strands of funding will need to be sought.

In July 2018 the UK Shared Prosperity Fund (UKSPF) was announced by the UK Government as the replacement for European funding. The UKSPF will be allocated in line with the priorities set out in the Local Industrial Strategies which LEPs have been tasked to produce and agreed with government by March 2020. Local Industrial Strategies must in turn reflect the Government's Industrial Strategy (2017) that identified the foundations of productivity and four 'grand challenges' which must be tackled to address inequality across the UK and enable people to benefit from economic prosperity. The value of the UKSPF has not been confirmed as of yet, however a report by Locality states that if the SPF is to replace the European Structural Fund then it must match or constitute an increase over current EU funding, which is currently worth over £2bn per annum to the UK.

The UK will not be eligible for new loans from the European Investment Bank (EIB) now the UK has left the EU. There have been some suggestions that the Government could create its own replacement for the EIB, if its preferred option of a continuing relationship with the EIB was not acceptable to the EU. However, it would be a substantial undertaking to start such a bank and build it up to the requisite size. In its first National Infrastructure Assessment (July 2018), the National Infrastructure Commission recommends that if access to the EIB is lost then a new, operationally independent, UK infrastructure finance institution should be established by 2021. A Government consultation took place between March and June 2019 on a proposed design of the new institution.

ONE-OFF PUBLIC SECTOR GRANTS

Mainstream public sector funding sources are reviewed earlier in the document. In addition, Government regularly makes capital funding available for specific types of infrastructure projects in the form of one-off pots accessed via a competitive bidding process. Recent examples include the Housing Infrastructure Fund (Homes England), and the Pinch Point Fund (Department for Transport). While these grant funding pots have now closed, there are likely to be other one-off funding opportunities arising to 2038 and these may be suitable for Staffordshire & Stoke-on-Trent's infrastructure projects identified within this report.

The scale of funds made available via one off government competitions can be substantial. However they are finite in size, have specific eligibility criteria and applicants must meet defined timescales for application and project delivery. They are therefore an unpredictable and short term funding source.

Example: Housing Infrastructure Fund

The Housing Infrastructure Fund is a government capital grant programme of up to £2.3 billion, which will help to deliver up to 100,000 new homes in England. Funding is awarded to local authorities on a highly competitive basis, providing grant funding for new infrastructure that will unlock new homes in the areas of greatest housing demand. The Fund provides:

- **Marginal Viability Funding:** On housing sites held back because the costs of putting in the infrastructure and building the homes are too great, the fund will provide the final, or missing, piece of infrastructure funding to get additional sites allocated or existing sites unblocked quickly.
- **Forward Funding:** For local authorities seeking to take a strategic approach and plan for infrastructure provision, the fund will back a small number of strategic and high-impact infrastructure schemes.
- The Fund is available over four years from 2017/18 to 2020/21. All funding must be committed by March 2021.

Stoke-on-Trent City Council have secured £10 million from the Housing Infrastructure Fund to develop nine brownfield sites and build around 1,100 houses in Burslem. This includes the former Royal Doulton factory site with plans to build around 218 homes on the site.

LOCAL GROWTH FUND

The Local Growth Fund (LGF) is government funding awarded to LEPs for projects that benefit the local area and economy. LEPs were required to develop Strategic Economic Plans (SEPs) which included actions to support local growth. These were then used to negotiate Growth Deals and secure devolved funds (LGF). Stoke-on-Trent and Staffordshire LEP has secured £121 million through the Growth Deal Programme to date. The First Growth Deal secured £82.3 million to fund business, transport and skills development projects. The round two Growth Deal (£15.4 million) focussed on town and city centre development including major improvements to Stoke-on-Trent City Centre. An additional £23.3 million was secured as part of a third Growth Deal for transport infrastructure including the Stafford Western access route, the Hanley-Bentilee link road and sustainable transport equipment. There are ongoing opportunities to secure funding through the LGF.

BORROWING

PUBLIC WORKS LOAN BOARD (PWLB)

The public sector can borrow from the Public Works Loan Board (PWLB) at rates determined by HM Treasury to fund its spending. In 2018-19, £9.1bn funding to Local Authorities was provided by the PWLB. Interest rates are currently low in comparison to other funding sources.

Local Authorities can borrow to invest in capital works and assets so long as the cost of borrowing is affordable and in line with the principles set out in a professional Prudential Code. This means that local authorities must use various prudential indicators to judge whether their capital investment plans are affordable, prudent and sustainable.

Prudential borrowing represents a key source of affordable finance which could be used to meet the upfront costs of key infrastructure. It has the benefit of being a relatively reliable source of finance, not being subject to commercial market appraisals in the way that a bank financed project would be.

However, whilst it can help meet the upfront costs of infrastructure, the loan must obviously be repaid with interest and overall costs will therefore be higher than grant funding due to the need to service debt on the loan (in the broader context of falling revenue income for local government). It places the local authority in a position of risk in terms of repaying the whole value of infrastructure from resources, if revenue or value through the schemes to come forward cannot be captured.

There are a variety of PWLB rates available and they vary over time. To incentivise the construction of new infrastructure, the government has recently made available £1bn of lending at the Local Infrastructure Rate of gilts + 60bps to English local authorities. There were two bidding rounds (May to July 2018 and January to March 2019). The infrastructure must fall into the categories of transport, energy, flood defences, water, waste or digital communications, and projects must commence before April 2022.

Case Study: Stoke-on-Trent

Stoke-on-Trent City Council secured £27 million of PWLB discounted project borrowing in 2013 to develop the Central Business District in Stoke-on-Trent City Centre. Now known as Smithfield, the £200 million mixed use development comprises apartments, office space, restaurants and a hotel. Stoke-on-Trent City Council occupy office space within the development. The one million sq ft. site which was home to the former Smithfield pottery factory is expected to create up to 4,500 jobs and generate £19m for the local economy.

LOCAL AUTHORITY BONDS

Bonds allow local authorities to raise substantial sums of capital immediately. In recent decades, municipal bonds have not been used much by Local Authorities. However in 2010 PWLB interest rates increased, making alternative approaches to raising finance such as bonds a more attractive option.

Local authorities' borrowing limits will be related to the revenue streams available to them, which influence their ability to repay the debt. Local authorities are prevented by law from using their property as collateral for loans. It would be possible for a local authority to issue bonds as part of a Tax Increment Finance (TIF) process: money would be obtained up-front by selling the bonds instead of approaching financial institutions, and they could be repaid by the additional tax revenues resulting from the public investment. TIF takes this form in many cities in the USA. If the future tax revenues do not materialise and the local authority is thus unable to repay the bonds, this will of course cause financial problems for the local authority.

In 2016, a new UK Municipal Bonds Agency (UKMBA) was established. It is owned by some 56 shareholding Local Authorities, (it will however also be open to other

authorities). The purpose of the agency is to facilitate the issuing of bonds by smaller local authorities, and to obtain a competitive price for their bonds within the conventional bond market in order to reduce councils' capital costs over the long term. It will do this by: raising money on the capital markets through issuing bonds; arranging lending or borrowing directly between local authorities; and sourcing funding from other third party sources such as banks, pension funds and insurance companies. It aims to lend to eligible councils at a lower rate than the PWLB or than if the councils were to issue their own bonds. This lower rate will be attained by: achieving a sovereign-like credit rating through a joint and several guarantee; issuing bonds in benchmark sizes of £250 million to £300 million; and sourcing capital at low interest rates from third parties, such as the European Investment Bank.

There was speculation that the agency would issue a bond before Christmas 2016 but this was delayed. In March 2018 the UKMBA received an Aa3 rating from Moody's and indicated that it was ready to go to market. Its first deal will be a private placement raising tens of millions of pounds for a test group of four 'financially top-quality councils'.

Example: Warrington Council

In August 2015, Warrington Council issued £150 million in bonds, with a 40-year repayment period. The majority of the funding is to be used to redevelop Warrington town centre. The council will seek to repay the bonds via the proceeds from this redevelopment, whether in the form of business rates revenue, or the sale and rental of the properties in question.

BORROWING AGAINST LOCAL REVENUE

BUSINESS RATE RETENTION

The business rate retention system was introduced in April 2013. Councils retain up to half of the rates revenue raised from businesses in their local area (though this revenue is subject to a tariff and top up system), with the remainder retained centrally by the government and used to provide grant funding for local authorities. Councils also keep up to 50 per cent of growth in their business rate receipts arising from new or expanding businesses. Local authorities are able to pool together on a voluntary basis to generate additional growth and smooth the impact of volatility in rates income across a wider economic area. Government's aim is to incentivise local authorities to grow these revenues by promoting the expansion of the local economy.

Business rates revenue could be used to meet the cost of infrastructure as and when the revenue is received, or it could be used to raise finance to meet up-front infrastructure costs. Use of business rates to pump prime infrastructure requirements would need to be weighed up against other council funding priorities, in a context of growing needs and constrained funding.

In the Autumn Statement 2015, the Government announced full localisation of business rates by 2020; however the Local Government Finance Bill was not reintroduced after the 2017 general election and current plans are to allow English councils to retain 75% of business rates in 2020,

with 100% retention pilots in some parts of the country. Stoke-on-Trent and Staffordshire have been selected to take part in a business rates pilot that will allow the local authorities to retain 75% of business rates growth in 2019/20. How the system will operate is not yet clear, and this uncertainty may impact on local authorities' willingness to invest in longer term projects such as infrastructure.

Within Staffordshire and Stoke-On-Trent, the Ceramic Valley Enterprise Zone came into being on 1 April 2016. Enterprise Zone status provides for the entire growth in Business Rates to be retained for 25 years.

Case Study: i54 South Staffordshire

i54 South Staffordshire is a 97 hectare nationally significant employment site in the centre of the UK, adjacent to the M54 motorway. The site is anticipated to leverage over £1bn of private sector investment, including an engine manufacturing plant by Jaguar Land Rover, and have generated over 4,000 full-time equivalent jobs when fully built out. This scheme represented a step change and transformation in the regional economy to higher value employment opportunities.

In March 2011 the site was granted Enterprise Zone status, which includes business rate relief for businesses moving onto the site. An agreement between the local authorities meant that the on and off-site infrastructure works required could be entirely funded through the BRR mechanism. This included a new £40m motorway junction providing direct access to the site opened in December 2014, led by Staffordshire County Council in partnership with Wolverhampton City Council and South Staffordshire Council. The local partners are now working together to extend the site by a further 40ha, creating potential developable floor space of around 1.8 million square feet.

TAX INCREMENT FINANCING (TIF)

By enabling local authorities to retain business rates, the Local Government Finance Act 2012 removed the most important barrier to Tax Increment Finance (TIF) schemes. TIF enables local authorities to borrow against future predicted increases in business rates resulting from infrastructure investment. The loan is used for upfront funding of the infrastructure which unlocks growth and economic development. TIF schemes in England have so far been based on business rate revenues, but could potentially use stamp duty uplift if this could be attributed locally and devolved to local authorities.

Borrowing for Tax Increment Financing schemes falls under the prudential system. However, such borrowing can only take place if local authorities and developers have a degree of certainty about the future tax revenue streams and whether there are sufficient guarantees that they will be retained within the authority.

TIF arrangements were put into practice as part of various 'city deals', for example in Newcastle-upon-Tyne, Nottingham and Sheffield, and have overlap with the arrangements for Enterprise Zones (EZs). EZs are guaranteed 100% of business rates growth for 25 years, and business rate rises within EZs are automatically protected from the resetting process, meaning greater certainty over

future business rates income. There is relevant experience within Staffordshire and Stoke-on-Trent to draw upon in this context; Stoke-on-Trent and Staffordshire LEP plans to use business rates growth in the Enterprise Zone as part of the funding package for the Etruria Valley Link Road.

Case Study: Greater Manchester

Greater Manchester Combined Authority developed a TIF mechanism to retain growth in business rates resulting from a prioritised programme of transport schemes. This income could then be spent on the schemes that don't provide sufficient GVA efficiency to be prioritised, but are vital to Greater Manchester's integrated transport vision. Following this the Earn Back Model was developed as part of the Greater Manchester City Deal following a need to become more self-sufficient in delivering infrastructure investment. The Model combines central and local funding to create a £2bn programme. Investment is prioritised on the basis of net GVA impacts with the majority of the programme finance provided through local Prudential Borrowing against revenues and a levy on local authorities.

The Earn Back Model is linked to changes in rateable values at the Greater Manchester level to generate a revenue stream over 30 years if additional GVA is created relative to a baseline. It provides an incentive for Greater Manchester to maximise GVA growth through the prioritisation of local government spending. If successful, the region will receive a greater proportion of tax take than would be the case under business rate retention which could then be used for further investment, creating a revolving fund.

LOCAL TAXES AND LEVIES

BUSINESS RATE SUPPLEMENT (BRS)

The Business Rate Supplements Act 2009 provided a discretionary power for county councils and unitary district councils to levy a supplement on the National Non-Domestic Rate (or business rate). Levying Authorities can retain the revenue raised from the supplement and use it to invest in projects aimed at promoting the economic development of their local area.

Once implemented the charge is predictable as rateable values are revalued only every 5 years. Business rates remain liable even with unoccupied properties meaning that tax revenues are maintained during economic downturns. Also, the collection rate is high – for example in 2017-18 the average collection rate of business rates in England was 98.4%. However, the BRS is not easy to implement and funding tools available to cities outside London are limited. If they wish to levy a BRS, authorities must set out proposals in a prospectus, covering the amount to be levied, the duration of the supplement, and how the expenditure is additional to the levying authority's existing plan. Once they have consulted on this prospectus, a ballot must then go out, in which the majority of business rate payers must agree to the supplement.

Case Study: Crossrail, London

In 2010, the Mayor of London introduced a 2p levy on non-domestic properties with a rateable value of £55,000 in London (around 20% of London non-domestic rate-payers). The revenue from the BSR helped pay for Crossrail, a train link from east to the west of London expected to provide a major boost to London's economy. The Crossrail BRS has been used to finance £4.1 billion of the costs of the project, of which £3.3 billion has been borrowed with the remaining £0.8 billion being funded directly using BRS revenues. The BRS has helped to support additional borrowing by the Greater London Authority, forecast to be paid back by 2030.

TOURISM TAX

A tourism tax (also known as an occupancy or bed tax) is usually charged per person, per night on top of the cost of a hotel room. It is paid directly by hotel guests, and varies according to the star rating of the hotel and accommodation.

While the tourism sector makes an important contribution to the economy, there are a number of arguments for a tourist levy. First, foreign tourists are able to enjoy free or subsidised cultural attractions without bearing the same costs as UK taxpayers. Secondly, tourists enjoy the benefits of many public goods such as parks, policing or elements of the transport network for which they also do not bear the full social costs. Thirdly, tourists impose costs on society such as pollution and congestion from use of the transport network, which affects residents and other tourists. Revenues could be used to support the tourism sector in a number of ways, from maintaining the public realm to education and training.

At present, UK local authorities do not have power to implement a tourist tax, though some localities have systems whereby tourists pay a levy on a voluntary basis. Several cities are considering adopting a tourist tax including Camden, Bath, Oxford and Edinburgh. Most of these have had unanimous backing from their city councils, and are lobbying government for new primary legislation in Parliament which would allow implementation. However, the UK has the highest VAT rate on hotel accommodation in the EU and imposing an additional tourist tax might discourage tourists from visiting.

Case Study: International Precedent

In New Zealand a new tax of up to \$24.40 New Zealand dollars per person will start in mid-2019 in order to fund for conservation and infrastructure for the country. In Europe, a tourist levy has become common practice in many locations, though as noted, these taxes are offset to varying degrees by lower rates of VAT on hotel accommodation than in the UK. In France, *taxe de sejour* is a form of municipal transient occupancy tax on tourists or visitors that stay in hotels or accommodation; municipalities have a degree of autonomy in setting the tax rate as long as it is within the General Municipal code. Berlin charges 5% of the accommodation cost. Lisbon charges a flat €1 per person per night. Ibiza and Majorca also have a 'sustainable tourist tax', in which all revenue collected from this tax goes towards the protection of the resources on the island.

WORKPLACE PARKING LEVY (WPL)

Around 13,631,000 people in England commute to work by car. In Staffordshire & Stoke-on-Trent the figure is around 346,898. The Workplace Parking Levy (WPL) is an annual charge placed on a number of workplace parking spaces used by employees. The WPL is paid by businesses instead of employees. Local authorities were given the power to introduce such a levy in the Transport Act 2000.

The first local authority to introduce a WPL was Nottingham in 2012, and has raised over £44m for a tram network and complementary bus services. A number of local authorities, in London and elsewhere, are actively considering WPLs although in London, only the London Borough of Hounslow has undertaken feasibility work, carrying out a public consultation earlier this year.

The aim of the levy is to discourage commuting by car and to raise funds to invest in alternative modes (proceeds are ring-fenced for transport investment). Additional potential benefits include reduced carbon emissions, low scheme costs (both of implementation and operation), and reduced congestion. A recent study carried out by Transport for London found that if the potential for converting short car trips to walking and cycling was delivered there would be a net gain for Londoners of around 61,500 years of healthy life and economic benefits of £2 billion.

However, despite the relatively low implementation cost, such schemes require much up-front work. Residents and businesses must be consulted, and an audit of all parking spaces provided by all employers in the target area requires numerous site visits to gather and validate information. Additional documentation work and communications between the executive local authority and numerous stakeholders are required throughout the launching process. The Levy represents a cost for businesses and may discourage future inward investment. Further work is required to examine the key outcomes.

Case Study : Nottingham

Nottingham introduced the WPL with four key aims:

- Provide attractive alternatives to the car;
- Continue to develop high quality public transport;
- Protect the city's commerce and inward investment;
- Improve the city's environment and sustainability.

Over 42% of total parking spaces are eligible to pay £379 per year for the WPL. Multiple benefits have been realised, such as 33% reduction in carbon emissions and an increase in modal shift to public transport by 40%. The WPL generates annual income for the city with a small scheme cost. The revenue has funded Nottingham's new tram network, Link Bus Network and the redevelopment of Nottingham Railway Station. Only 10 FTE employees are now required to manage the whole scheme.

LEVERAGING VALUE FROM LOCAL AUTHORITY ASSETS

LOCAL ASSET BACKED VEHICLES (LABV)

Local Asset Backed Vehicles (LABV) allow local authorities to use their assets (usually land) to lever long-term investment from the private sector for regeneration projects. They are designed to bring together a range of public and private sector partners in order to pool finance, planning powers, land and expertise; to ensure an acceptable balance of risk and return for all partners; and to plan and deliver projects more strategically.

There is no uniform method for designing LABV arrangements. In fact, given the varying capacity, assets and ambitions of local authorities across the country, each LABV must be specifically tailored to the individual needs of a local authority or city-region. Nevertheless, there are certain phases that all LABVs are likely to go through in their formation.

Generally, when attempting to establish a LABV, local authorities and other public sector bodies will first collaborate to identify a portfolio of assets and a pipeline of regeneration projects which require funding. Finding the right mix of assets is important, and they should be bundled together specifically with the aim of attracting particular private sector partners. In order to simplify the public-private relationship and make it easier to attract private investment. This collaboration is then formalised into one company with a single governance structure – the LABV. Any number of specialist partners can be introduced further down the line, whether they are developers, infrastructure delivery companies, contractors or other bodies.

While LABVs can be an effective tool to unlock brownfield or underdeveloped sites, they also present a range of challenges including:

- Securing political buy-in. This can be a challenge for multiple reasons including reluctance to relinquish control of local authority assets; scepticism of the private sector; need for cross-party, and cross-boundary working;
- Getting the governance right given the LABV would bring together a diverse range of partners, each with different objectives;
- The capacity of local authorities to set up and manage their own LABV arrangements, and to manage risk;
- The need to maintain stakeholder support;
- The cost of setting up and operating the LABV. Procurement, preparing and agreeing legal documentation, require significant officer and external advisor time.

Procurement, preparing and agreeing legal documentation require significant officer and external advisor time. The importance of political buy-in and cross-party working has been emphasised by the collapse of LABV's in Haringey Borough Council and Croydon Borough Council in London.

Case Study : Sunderland Council

As part of a strategy to support city centre regeneration, the former Vaux brewery site was acquired by the Council with plans to create jobs and enhance city centre attractiveness by developing high quality office space with complementary residential, retail and leisure uses. This site was packaged together with housing developments in Chapel Garth and Seaburn seafront sites into a LABV called Siglion managed by Igloo Regeneration. In addition, the Council had to agree to take on the head lease on the first building delivered at the Vaux site in order to make development viable.

The value of entering a LABV to Sunderland has been to improve the ability of the portfolio to support employment, resulting in improved rents and rental income back to the council. The LABV model enabled partners to focus on acquiring sites and buildings with low occupancy or a poorer offer and improving their performance. In Sunderland, the formal partnership between the public and private sector matches the expertise and finance available in the private sector with the de-risking through planning that the public sector can bring.

STRATEGIC ASSET MANAGEMENT

The recession and local government funding cuts has made publicly owned land and property assets an increasingly important tool for local authorities to support economic growth, as well as to generate revenue funding. These shifts have led to a greater focus on treating public assets more strategically at a local level. Government policy in this area has tended to focus on disposal of publicly owned land and property, as well as reducing costs and improving the public service delivery through co-location. But the priorities for local authorities, and the opportunities that public assets present in terms of supporting local growth, are quite different. Publicly owned land and property can be both a strategic as well as financial asset to local authorities. It can enable them to capitalise on existing assets to deliver more housing or employment space to support economic growth (or improve public service delivery), as well as providing a revenue funding stream in the context of reducing budgets.

While disposal of land and property might remain the right response in some cases, strategies that include investing to refurbish old assets or acquire new ones in the right places are also appropriate responses for areas seeking to proactively support economic growth and regeneration, as well as generate revenues. Three broad approaches to managing and optimising the value of public sector assets can be found across UK local authorities:

- **Leading development:** in places where the market is too weak to deliver physical development and regeneration without public sector intervention and funding. Partners are purchasing and/or using the existing asset base to pump-prime development that will support economic growth.
- **Shaping development:** in other places, the private sector property market (residential or commercial) is stronger. The focus for partners is on using the public asset base to influence how and what kind of development takes place in ways that align with their vision for the area.

- **Unlocking development:** localities focus on removing the barriers to particularly difficult individual sites and projects, by working together to formally coordinate asset management and investment within areas (across local authorities and public sector agencies), which creates new opportunities for releasing valuable land in strategic locations within urban areas.

Strategic Asset Management is therefore much more than just a potential funding stream for local authorities and must be approached as a mechanism to support regeneration, place making and local development.

PRIVATE FINANCE 2

While more than 90% of the government's capital investment is publicly financed, delivering infrastructure investment using private finance is an important part of the government's infrastructure plan.

Private Finance Initiatives (PFIs) are a form of Public-Private Partnership (PPP), first introduced in 1992. Under a PFI, the private sector will typically design, build, finance and maintain infrastructure facilities under a long-term contract.

The public sector body which uses the infrastructure repays the debt over a long period, often 25-30 years. PFI contracts allow a local authority and other service providers to embark on large capital projects with little upfront commitment of resources. In December 2012, the Government announced the replacement of 'PFI' with 'PF2', which sought to address widespread concerns with the PFI and changes in the economic context. The key reforms were:

- **Public sector equity** - The public sector to take an equity stake in projects and have a seat on the boards of project companies, ensuring taxpayers receive a share of the profits generated by the deal.
- **Encouraging more investors with long-term investment horizons** - The use of funding competitions to encourage institutional investors such as Pension Funds to compete to take equity in a PF2 project after the design stage. This is significant in terms of risk as Pension Funds are unlikely to invest in projects that are insufficiently developed.
- **Greater transparency** - Companies to disclose actual and forecast annual profits from deals. The new PF2 structure aims to curb gains to be made from refinancing and un-utilised funds in lifecycle reserves.
- **More efficient delivery** - An 18 month limit on procurement; failure to meet this limit will see the respective public sector body lose funding.
- **Future debt finance** - the tender process requires bidders to develop a long-term financing solution where bank debt does not provide the majority of the financing requirement; this aims to make institutional investment an important source of finance for PF2.

Despite these reforms, PF2 has not been a popular capital financing option in recent years. Since its launch in 2012, only six PF2 projects have reached financial close: the £1.75

billion privately financed element of the Priority Schools Building Programme (PSBP), and the Midland Metropolitan Hospital. Other PPP deals have delivered much more investment than PF2 over this period. The last PF2 project agreed by the government was in April 2016. In the Autumn Statement 2016, the government announced that a new pipeline of projects for PF2 would be developed and published but this has been delayed. There are currently no projects in procurement although in July 2017 Highways England published documents outlining plans to use PF2 to finance the £1.3 billion A303 Stonehenge tunnel and roads and the £1.5 billion approach roads to the Lower Thames Crossing.

The contracts have been criticised for allowing private companies to make excessive profits and the collapse of Carillion has highlighted the risks of private sector involvement in infrastructure delivery. There is a greater emphasis than previously on demonstrating that PF2 gives better value for money than other arrangements.

The NHS LIFT Programme (Local Improvement Finance Trust) is the Department of Health (DH) sponsored partnership between the public and private sectors. Community Health Partnerships (CHP) delivers the LIFT Programme through 49 individual LIFT Companies. LIFT Companies are the long term, Joint Venture partnerships between the public and private sectors. The focus of LIFT Companies is to support CCGs, NHS Trusts, GPs, Councils, CHP and NHS Property Services achieve their commissioning and estates requirements. NHS LIFT has delivered a portfolio of over 300 facilities across England.

In the Autumn Budget 2018, Government stated it would not be signing any more PFI and PF2 agreements, but will continue to honour existing contracts with a new centre of excellence to monitor deals and no more PFI for future projects.

INSTITUTIONAL INVESTORS

The UK's longstanding track record of private ownership and robust rule of law makes it amongst the most attractive jurisdictions for infrastructure investment. There is strong interest in the UK infrastructure market from overseas investors (e.g. Middle East and Far East wealth funds) and from pension funds seeking higher financial returns and annual cash yields from investments in real assets at a time of low interest rates. The UK government has put in place measures to improve long term infrastructure planning to give the market confidence to invest, including an annually updated National Infrastructure and Construction Pipeline and a UK National Infrastructure Plan.

Data from Prequin, a global venture capital consultancy, indicated that between 2013 and 2016 renewable energy assets accounted for the largest proportion (47%) of completed UK infrastructure transactions, while social assets including educational buildings, hospitals and police stations made up 30%, transport 10% and utilities 6%.

Despite the strong interest in the UK market among investors, there are still hurdles to overcome as institutional investors attempt to marry their responsibilities and duties within tight legal and regulatory frameworks that vary across borders. Infrastructure debt competes for attention with other asset classes, and strong competition might see investors move their investment allocations away from the UK's infrastructure assets towards other asset classes. Institutional investors tend to favour assets which are up and running and which deliver steady income streams over new developments. Projects can however be designed to overcome this issue; for example, the Thames Tideway Tunnel, a £4.2bn project to upgrade London's sewage system, has attracted investment from the UK Pensions Infrastructure Platform (PIP) and Macquarie by offering a return during the construction period.

LOCAL GOVERNMENT PENSION FUNDS

The Local Government Pension Scheme (LGPS) is a funded, statutory, public service pension scheme. MHCLG is responsible for the scheme's stewardship and maintaining its regulatory framework. It is administered and managed by local pension fund authorities. There are 89 LGPS funds in England and Wales.

The primary responsibilities of Local Government Pension Scheme (LGPS) administering authorities regarding investments are to deliver the returns needed to pay scheme members' pensions, and to protect local taxpayers and employers from high pension costs. Thus pension funds do not represent large additional sources of capital expenditure that could be made freely available to local government. However, the potential role of the LGPS in infrastructure funding is evolving. In the future, the LGPS may be able to invest part of its fund in supporting the development of local communities across the UK, and this could include infrastructure investment.

In recent years, the regulations on pension investment have been changed and new guidance issued so that economies of scale can be achieved in LGPS funds, with the primary aim of improving returns and reducing deficits but also to enable greater capacity for investment in infrastructure. LPFS authorities are required to produce Investment Strategy Statements, with investment decisions taking non-financial as well as financial factors into account. At the Budget 2016, the Government said it had received ambitious proposals from LGPS authorities to establish a small number of British Wealth Funds by combining assets into larger investment pools. On 22 January 2018, the Government said it would work with administering authorities to establish a new LGPS infrastructure investment platform to "boost their capacity and capability to invest in infrastructure".

Example: Greater Manchester Pension Fund and GLIL

Greater Manchester Pension Fund (GMPF) is the largest LGPS in the country, with more than 350,000 members from 470 different employers across the 10 Greater Manchester boroughs and the nationwide probation service. It has £17.3 billion in assets under management. Investing locally is part of its strategy with the ‘twin aims of securing commercial returns and supporting the area’. Local investment is limited to 5 per cent of main fund value, and it currently stands at around 1-2%. Several different strands of investment activity fall within this, including a £1.3 billion joint venture with LGPSs in London, Lancashire, Merseyside, and West Yorkshire to invest directly in infrastructure. Although this fund— called the GLIL —focuses on assets that are already up and running, it will take on some short-term construction risks. It has already invested a total of £250m in waste-to-energy plants, an onshore wind farm and new rolling stock for the East Anglia rail franchise.

LAND VALUE CAPTURE

Land value uplift which results from public investment and other government actions can be captured as a means to pay for infrastructure. Current methods of land value capture include CIL and planning obligations, and the definition sometimes (though not always) extends to Tax Increment Financing. The most direct means of land value capture is for government to assemble and develop land, as illustrated by the first generation of UK New Towns, when Development Corporations were able to acquire land at, or near to, existing use value.

Land value capture is most commonly discussed in the context of public transport projects where positive externalities in the form of land value increase within catchment areas. Recent analysis for Transport for London (TfL) estimates that Crossrail 2 could produce land value uplifts in the order of £61bn through increasing the value of existing properties and by inducing new development. Some 65% of value uplift will accrue on existing residential property, yet only a fraction of these overall value uplifts would be captured through existing mechanisms such as Stamp Duty, while over-station development and development taxes such as CIL and Mayoral CIL only relate to new development.

TfL has therefore identified a potential role for land value capture mechanisms to contribute to funding of its transport projects. Potential mechanisms include first, the Transport Premium Charge which would capture value uplift of both residential and commercial properties arising from improved accessibility to public transport. The TPC could be achieved through a reform of existing mechanisms such as Stamp Duty Tax; alternatively, a more progressive approach could be taken by reforming Capital Gains Tax, which currently in the UK does not cover residential transactions. The taxable income would be the difference between the acquisition cost and the property disposal value. Secondly, the Development Rights Auction Model (DRAM) deals with the situation where a piece of land has multiple land owners but high development potential. The development rights are auctioned to participating land owners. In this case, no development taxes are paid, but any gains above the reserve

price are shared between the participating landowners and the planning / auctioning authorities.

A Land Value Capture Inquiry was launched by the Communities and Local Government Committee (CLG) in early 2018. The Committee’s report, published in September 2018, examined the existing land value capture framework and considered the potential for a more effective and fair system in the future. In general, the Committee recommend retaining and enhancing existing mechanisms of land value capture, including: simplification and speeding up of the CPO process; reform of the Land Compensation Act 1961 so that local authorities have the power to compulsorily purchase land at a fairer price; robust and up-to-date Local Plans which clearly set out the objectives and requirements for developer payments; reform of CIL so it is simpler and has fewer exceptions; and a transparent process for assessing development viability so that benefits from s106 can be enhanced.

The Letwin Review (2018) commissioned by Government to review house ‘build out rates’ also proposed the use of Land Value Capture. The Review suggested councils should be able to access a larger proportion of developer’s profits through LVC in order to fund infrastructure.

Case Study: Hong Kong Mass Transit Railway

The Hong Kong MTR is used by more than five million people every day and has a total length of 221 kilometres. The Government owns land in Hong Kong and therefore has generated revenue via the MTR from a so-called “Rail plus Property” model. The Government grants MTR land development rights, for which MTR pays the government a land premium based on the market value without the development scheme/railway. The funding model not only provides a stable and sufficient source of income but also generates social benefits by attracting citizens to amenities and areas near the stations and facilitating urban regeneration. All retail/shop owners need to pay MTR a proportion of their profits by signing a co-ownership agreement, or otherwise accept property development fees.

CROWDFUNDING

Crowdfunding is the practice of funding a project or venture by raising monetary contributions from a large number of people, typically via the internet. The crowdfunding model is fuelled by three types of actors: the project initiator who proposes the idea and/or project to be funded; individuals or groups who support the idea; and a moderating organization (the “platform”) that brings the parties together to launch the idea. There are two primary types of crowdfunding:

- Rewards Crowdfunding: entrepreneurs pre-sell a product or service to launch a concept without incurring debt or sacrificing equity/shares.
- Equity Crowdfunding: the backer receives shares of a company/project, usually in its early stages, in exchange for the money pledged. The company/project’s success is determined by how successfully it can demonstrate its viability

Several dedicated civic crowdfunding platforms have emerged in the UK, some of which have led to the first direct involvement of local governments in crowdfunding. Notable

examples include Bristol, Mansfield and London. However, most projects funded through crowdfunding are highly local and small with typical campaigns generating funding around the tens-of-thousands mark. This would not be enough to support large projects that local government is involved with, such as transport infrastructure and educational projects. However, it may be the case that crowdfunding represents a potential funding stream for the smaller social infrastructure and desirable local level projects that can often be overlooked when allocating limited funding across a range of infrastructure requirements, e.g. low carbon energy projects.

Example: Plymouth

The City Change Fund uses Community Infrastructure Levy (CIL) money to support local projects in partnership with Crowdfunder. Crowdfunder is an online platform where people can support a project by pledging funds in return for rewards. A project receives funding once the fundraising target is met. 50 per cent of project costs are funded through Crowdfunder and 50 per cent using CIL monies. Through the project Plymouth Council uses the Crowdfunder platform to distribute the 'neighbourhood portion' of CIL towards local projects.

Since 2015, over £250,000 has been pledged on more than 60 projects in Plymouth with the Crowdfunding platform raising over £1.5million. It has engaged thousands of residents in local projects including improvements to local green space.

REVOLVING INVESTMENT FUND (RIF)

Loans for infrastructure projects are available through the Growing Places Fund (GPF) administered by the LEPs. One aim of the GPF was for LEPs to establish a sustainable revolving fund that can be reinvested to unlock further development. However, there is potential for local authorities to pool funds to provide additional / alternative regional or sub-regional level loan facilities, in the face of major cuts to grant funding.

A loan facility dedicated to infrastructure projects would be set up (up-front sum(s) could be sourced from, for example, prudential borrowing and other funding mechanisms). Loans would then provide upfront finance to infrastructure projects. The funds (plus interest) would then be paid back in due course from the revenue generated by the development which is unlocked.

There is on the ground experience to draw on in establishing RIFs, for example the Greater Manchester Earn Back Model, Evergreen North West Fund, London Green Fund and the Cambridgeshire Horizon's rolling fund, but the model is new and will require ongoing evaluation to ensure that ventures are supported that realise the best returns.

In Staffordshire & Stoke-on-Trent businesses can apply to the LEP for GPF short-term loans to support investment in projects that support economic growth and meet emerging business demand in regional, national and global markets. The first round of funding sought applications for eligible projects which focused on the priority areas of the SSLEP

Strategic Economic Plan including advanced manufacturing, tourism and business/professional services. The minimum application value was £50,000.

ALTERNATIVE FUNDING OPTION MATRIX

A funding matrix of alternative funding options (Table 5.2) to close the funding gap in Staffordshire & Stoke-on-Trent has been developed. The matrix provides an indicative assessment of the applicability of different funding options to the infrastructure topics in the Strategic Infrastructure Plan. The analysis is based on eligibility criteria, as well as examples to date of where these funds / mechanisms have been employed. The criteria used to assess the funding options against infrastructure are as follows:

Unsuitable: Funding option is not applicable to the infrastructure type.

Potential Funding Source: Funding option could be applied to infrastructure type, however this depends on eligibility criteria or that in theory could be applicable but lacks precedent.

Strong Potential Funding Source: Funding option that directly applies to a specific infrastructure type or has a strong existing precedent within the UK.

Table 5.2 summarises in detail the various alternative funding options and their applicability against various infrastructure types.

CONCLUSION

The Strategic Infrastructure Plan has identified a range of alternative funding sources to begin closing the existing funding gap. However, each of these funding sources have their strengths and weaknesses, in which Staffordshire & Stoke-on-Trent's local authorities will need to develop bespoke packages of funding options and delivery mechanisms from both mainstream and alternative options that meet the needs of the different types of infrastructure and local communities.

This may involve Staffordshire & Stoke-on-Trent prioritising portfolios of projects, which will have the greatest impact and be most attractive to investors. This will require further analysis to assess:

- Which funding sources are appropriate for Staffordshire;
- How different strands of funding can be brought together to secure long-term infrastructure delivery e.g. through mechanisms such as revolving investment funds; and
- The Staffordshire's authorities' capability and capacity to develop and manage such instruments.

The positive and negative attributes of each funding source is broken down in Table 5.3.

Table 5.2

Alternative funding matrix

Funding Source/ Mechanism	Infrastructure Type							
	Transport	Education	Healthcare	Emergency Services	Community, Sports and Leisure	Utilities	Waste	Flood Risk and Drainage
Shared Prosperity Fund (possible categories based on previous EU Funding)	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC
One-Off Public Sector Grants								
New Homes Bonus								
Public Works Loan Board (PWLB)								
Local Authority Bonds								
Business Rate Retention								
Tax Increment Financing								
Business Rate Supplement								
Tourist Tax								
Workplace Parking Levy								
Local Authority Backed Vehicles								
Strategic Asset Management								
Private Financing Initiative								
Local Government Pension Funds								
Institutional Investment								
Land Value Capture								
Crowdfunding								
Revolving Infrastructure funds								

Source - AECOM assessment

1 - Eligibility criteria apply depending on precise fund. ESIF Programme 2014 to 2020 focuses on: - Skills, Employment Support and Promoting Social Inclusion (ESF) - Research and innovation, IT and broadband, business support, low carbon, climate change, environment, transport, social inclusion, technical assistance (ERDF) - Support for rural businesses (EAFRD)

2 - Depends on eligibility criteria for funding pot in question

	Strong potential funding source
	Potential funding source
	Unsuitable funding source

Table 5.3

Selected options for additional infrastructure funding

	DESCRIPTION	PROJECT TYPES	MATURITY	POSITIVE ATTRIBUTES	NEGATIVE ATTRIBUTES
Shared Prosperity Fund (replacing European Funds)	The Shared Prosperity Fund is the proposed new funding stream to replace EU funding following the UK's withdrawal from the EU. Funding will be allocated to LEPs and spent in line with Local Industrial Strategies. Precise arrangements and scale of the UKSPF remain tbc.	Projects meeting eligibility criteria (though this is not yet determined). It may follow the model of previous EU funding streams	Emerging	Provides additional source of funding to national / local streams. This is one of the criteria for eligibility.	There is currently little detail about the size of the pot, how it will be managed.
New Home Bonus	The New Homes Bonus is a grant paid by central government to local councils to reflect and incentivise housing growth in their areas. It is based on central government match funding the Council Tax raised for new homes and properties brought back into use, with an additional amount for affordable homes, for the following four years.	Any - councils can decide how to spend the NHB	Mature	Clear financial incentive for local authorities to permit new housing. Bonus is relatively easy to calculate.	Scale of payments has been reduced in recent years, and local authorities where housing delivery falls beyond a 'baseline' growth level receive no funds at all.
One-off Public Sector Grants	One-off capital grants available via a competitive bid process can offer finance for upfront infrastructure investment or plug a funding gap and therefore unlock development on a particular site.	Any	Mature	Additional funding for site-based development	Limited life cycle, eligibility criteria, unpredictable.
Public Works Loan Board (PWLB)	Loans at low rates from the Public Works Loan Board (PWLB) under prudential principles.	Any	Mature	Low rates Reliable Prudential approach determined by local authorities.	Availability of revenue funding to repay the loan. Political appetite for borrowing.
Local Authority Bonds	A fixed- interest bond, repayable on a specific date, used by a local authority in order to raise a loan and similar to a Treasury bond. Could be used as part of a TIF scheme.	Any	Re-emerging with the implementation of a UK Municipal Bonds Agency	Reliable; Stable repayment amounts over time.	Ability to repay the loan.
Strategic Asset Management (SAM)	Maximising the contribution of local authority assets as sources of long-term funding through a combination of: refurbishing and repurposing buildings in order to make better use out of them and ready them for sale; selling off to generate receipts, or liabilities to reduce costs; acquiring new assets to meet local council or civic needs, to deliver where the market cannot or to grow the investment portfolio.	Revenue from SAM can be used for any purpose	Mature	Limited costs Maximises value of local authority assets Facilitates working across the public sector locally Some dedicated funds to support (e.g. One Public Estate)	Difficulty in aligning objectives of different public sector owners; Need to adopt an entrepreneurial approach, working to commercial timescales and accepting risk; Tensions and trade-offs between short-term financial gain and long-term economic growth benefit
Business Rate Retention (BRR)	Local authorities can retain 50% of business rates revenue (rising to 75% by 2020) as well as growth on the revenue that is generated. The scheme could be used to meet the cost of infrastructure as and when the revenue is received, or it could be used to raise finance to meet up-front infrastructure costs.	Any	Emerging	If revenues are spent on infrastructure directly, there is no cost to the local Authority; Potential track record with Enterprise Zones.	Use of funds from BRR for infrastructure must be weighed against other local authority needs.
Tax Increment Finance (TIF)	Enables local authorities to borrow against the value of the future tax revenue uplift in order to deliver the necessary infrastructure (usually based on BRR)	Sites / areas where substantial business rate growth is a realistic prospect	Emerging	Prudential System	Ability to repay dependent on achievement of predicted growth in value
Business Rate Supplement	The Business Rate Supplements Act 2009 provided a discretionary power for county councils, unitary district councils and the Greater London Authority (GLA) to levy a supplement on the National Non-Domestic Rate or business rate.	Any project which promotes the economic development of the local area.	Developing	Stable (rateable values set for 5 years); business rates have high collection rates and must be paid even during an economic downturn.	Under current legislation, levying authority must consult and obtain agreement of majority of rate payers via a ballot.
Tourist Tax	This levy (also known as an occupancy or bed tax) is usually charged per person, per night on top of the cost of a hotel room.	Revenue would be spent in reflection of the social costs imposed by tourists, or to benefit the tourism sector, e.g. public realm, transport, skills and education.	Emerging	Numerous precedents outside the UK; a number of UK Local Authorities are lobbying Central Government for devolution of the relevant powers.	Would require new primary legislation; UK has a higher VAT rate on hotel accommodation (20%) compared to the EU.

	DESCRIPTION	PROJECT TYPES	MATURITY	POSITIVE ATTRIBUTES	NEGATIVE ATTRIBUTES
Local Asset Backed Vehicles (LABV)	Local Asset-Backed Vehicles (LABVs) allow local authorities to use their assets (usually land) to lever long-term investment from the private sector for regeneration projects.	Contaminated or under-developed urban areas; housing projects.	Developing	Unlocking value from previously undeveloped / unused local assets; Brings in funding and expertise from private sector to develop the asset.	Need to secure political buy-in; Difficulty and cost of implementation; working across a range of partners; Managing risks; Stakeholder engagement; Operation costs; Procurement and legal requirements.
Private Finance 2 (PF2)	Under a PFI/PF2, the private sector will typically design, build, finance and maintain infrastructure facilities under a long-term contract. The public sector body which uses the infrastructure repays the debt over a long period, often 25-30 years.	Generally linked to buildings (e.g. schools, hospitals) but other projects can be suitable.	Mature	Enables a local authority to embark on large capital projects with little upfront commitment of resources.	Higher costs and risks than conventional funding; Value for Money case for PFI can be weak; Local authority's ability to manage risk and achieve appropriate contract.
Local Government Pension Funds	The Local Government Pension Scheme (LGPS) is a funded, statutory, public service pension scheme. In the future, the LGPS may be able to invest part of its fund in supporting the development of local communities across the UK.	Any	Emerging	Source of investment with a long-term view and interest in the UK infrastructure market.	Scope for involvement of LGPS currently evolving.
Institutional Investors	Sovereign wealth funds and pension funds show a growing interest in the UK infrastructure market as a place to invest.	Any	Emerging	Large operators with long-term view of investment.	Likely limited potential as infrastructure debt. Competes for attention with other asset classes. Institutional investors prefer projects which are up and running rather than under construction.
Land Value Capture	Uplifts in land value which occur due to infrastructure investment or other public sector actions can be captured via a range of mechanisms, which in the UK currently include CIL and planning obligations and the assembly, acquisition and development of land by the public sector.	Any (depending on LVC mechanism)	Developing	Equitable - targets beneficiaries of new infrastructure; existing mechanisms could be made more effective and new mechanisms have been proposed.	Historical lack of successful implementation – politically unpopular and some mechanisms would require new legislation.
Crowd funding	Funding a project or venture by raising monetary contributions from a large number of people, typically via the Internet.	Small projects e.g. community gardens	Emerging	Direct link with local population and their need; Ability to address gaps in funding for small projects which contribute to well-being and sense of place; Dynamic and grass-rooted.	Small Scale Funding
Revolving Investment Funds (RIFS)	A regional level loan facility dedicated to infrastructure projects. The loan provides upfront finance to infrastructure projects; funding (plus interest) is then paid back in due course from the revenue generated by the development which is unlocked.	Infrastructure projects which will unlock development at stalled sites.	Emerging	Would work well in counties or regions where priority strategic projects to unlock development have been agreed and partnership working is strong.	Requires upfront funding. Ventures which are supported must realise the forecast returns.
Workplace Parking Levy (WPL)	The Workplace Parking Levy (WPL) is an annual charge placed on a number of non-exempt workplace parking spaces used by employees. The WPL is paid by businesses instead of employees.	Proceeds must be spent on transport projects.	Emerging	Low administration/scheme costs; Potential impact on model shift; Multiple social and environmental benefits.	Costs to business and disincentive to inward investment; extensive pre-implementation research and validation required.

06

CONCLUSIONS

Staffordshire & Stoke-on-Trent is a place of opportunity. Currently home to 1,126,000 people, with a further 62,223 forecasted to live in the area within 20 years, based on ONS projections although greater population growth is likely.

Expected growth on such a substantial scale is testament to the economic strength and quality of life offered by the cities, towns and villages within Staffordshire & Stoke-on-Trent. But to be successful, growth requires infrastructure, and infrastructure needs investment.

To understand the scale of the infrastructure challenge better, Staffordshire County Council commissioned AECOM to prepare a Strategic Infrastructure Plan (SIP) for the Staffordshire & Stoke-on-Trent area. The SIP presents an overview of growth patterns to 2038, evidences the infrastructure required, and estimates likely costs and funding gaps.

This report presents an overview of growth patterns and the infrastructure projects needed to support such growth, their costs, how much funding has already been secured or is expected toward their delivery and the funding gap for the period up to 2038. The SIP has been produced by AECOM based upon an analysis of available evidence provided by local authorities throughout Staffordshire & Stoke-on-Trent and augmented by a desk-based assessment of additional published information. There was further engagement with all the Staffordshire & Stoke-on-Trent local authorities and with other strategic infrastructure providers.

It provides a high level Staffordshire-wide 'snapshot' reflecting the position in 2018, but does not drill down into local infrastructure issues within each area in detail. It is not intended to supersede or replace local studies, some of which use different metrics that may better reflect local circumstances. Findings are based on common funding and

cost assumptions and modelling work that may differ from those used in individual local infrastructure delivery plans and documents.

KEY FINDINGS FROM THE SIP

The following key findings have been established:

- Staffordshire & Stoke-on-Trent authorities aim to accommodate housing and economic growth over the 20 year period to 2038 delivering on average **4,339 dwellings per annum, or 86,772 dwellings over the period**. This compares to average annual completions of 23,110 dwellings per year across Staffordshire from 2008/9 to 2017/18.
- ONS population projections forecasted a **population increase of 62,223 people (an increase of 5.5%)**.
- **103,830 additional jobs** in Staffordshire & Stoke-on-Trent are forecast by Staffordshire County Council, an increase of 21%.
- Delivering the necessary infrastructure to support that growth and to realise local infrastructure opportunities is **estimated to cost £4.27 billion** up to 2038, in 2018 terms. This represents an estimate of capital delivery costs only and does not include the additional annual revenue requirements and maintenance costs.
- The study has reviewed the potential costs of delivery alongside currently identified secured funding, potential funding from public, private and developer contributions highlighting a **remaining funding gap estimate of £1.80 billion** at 2018 prices.

INFRASTRUCTURE ASSESSMENT

The study has examined a comprehensive scope of infrastructure topics and has highlighted a number of key infrastructure issues facing Staffordshire including:

- Growth in Staffordshire & Stoke-on-Trent over recent decades has created a deficit in existing infrastructure.
- Infrastructure capacity within Staffordshire & Stoke-on-Trent will also be affected by housing and economic growth in neighbouring areas.
- Infrastructure planning in Staffordshire & Stoke-on-Trent must take into consideration the demands and capacities of infrastructure across the region as a whole. Major infrastructure investment is proposed on the regional strategic road network and rail network (such as HS2) which will have direct impacts on the sub regional and local network. The long-term uncertainty of some of these major infrastructure projects makes it difficult

to plan effectively to support that infrastructure and accommodate growth.

- Education demand will expand considerably over the next 20 years driven by the scale of housing growth planned. A number of new secondary schools will need to be built, in addition to those required by population growth and policy changes. The limitations of the Community Infrastructure Levy (CIL) make it impossible to secure sufficient funding from developers, particularly to cover the full cost of building new secondary schools. Consequently, for the strategic development sites, the Education Authorities look for a zero CIL rating to ensure the correct level of developer funding is capable of being secured. This particularly applies to the strategic development sites which will require new secondary school provision.
- To stay healthy, more residents and employees need to walk and cycle, and take fewer journeys by car. We need to invest in a transport system that enables this change. The principles of planning for public health benefits will need to be applied through carefully crafted Local Plan policies and land allocations. The concept of planning for healthy new settlements will equally need to apply to the larger scale site allocations.
- Pressure on the existing health and social care sector is acute and will continue to grow. There is also a drive to reconfigure acute hospital beds, and transfer further significant services into the community, promoting realignment of community and primary care facilities to benefit the need of the changing population demographics. This will require a different approach to facilitate co-location of public services and other community facilities. At the time of developing the Strategic Infrastructure Plan the local health economies have been developing Sustainable Transformation Plans (STP) collaboratively with key stakeholders through the Clinical Commissioning Groups. The STPs will be the key documentation guiding strategic planning and change to the healthcare system.
- Staffordshire & Stoke-on-Trent is shown to have a diverse, high quality landscape with numerous natural assets, including Cannock Chase AONB. Impacts from planned housing and economic growth will need to be mitigated through the provision of new strategic sites and also by enhancing the quality of existing sites, improving access and wider landscape management practices. Options for infrastructure provision and delivery may be limited by environmental constraints.

INFRASTRUCTURE FUNDING

- Existing funding will not deliver the scale of infrastructure investment identified in the SIP. Developer contributions (whether s106, s278 or CIL), local authority capital programmes or current public sector funds and grants will fall short.
- All local authorities in Staffordshire & Stoke-on-Trent need to continue to work together to devise an integrated package of funding sources and delivery mechanisms that meet the needs of different areas and types of infrastructure. Section 5 of the SIP document presents a summary of potential options and the benefits and limitations of each.
- The challenge will need to be met in part through approaches that achieve the demands of residents and businesses through innovative services that require less capital investment. This change has already begun across many sectors, through integrated services, technological advances and redirecting service demand, for example to more cost effective solutions such as community healthcare and outpatient services to relieve pressure on acute hospitals.
- Given the funding gap, Staffordshire & Stoke-on-Trent will have to prioritise infrastructure investment with the greatest impact. This requires further analysis to assess which projects are most important, and which funding sources are appropriate for Staffordshire & Stoke-on-Trent. Authorities need to consider the potential for investment mechanisms, such as Local Delivery Vehicles and revolving investment funds, in the light of their capability and capacity to develop and manage such instruments.
- The SIP recognises the invaluable work undertaken by the local authorities, LEP and its partners across Staffordshire & Stoke-on-Trent to produce its latest Growth Bid document and the level of work required to arrive at a 'shortlist' of priority projects chosen to facilitate growth and deliver the greatest returns on investment. This approach may be one model to follow when determining prioritisation.

FUTURE ACTIONS FROM THE SIP

The following actions are recommended to take the Strategic Infrastructure Plan forward:

- Revisit the evidence base behind this study on a regular basis in collaboration with partners to maintain a rolling understanding of the infrastructure landscape and funding priorities. Consideration of the desired review and update mechanism for the SIP, information sharing

and analysis and how frequently this is undertaken will need to be considered by the Staffordshire & Stoke-on-Trent local authorities. Future iterations of the SIP will need to use Infrastructure Delivery Plans prepared by the local authorities, a number of which are currently being updated.

- Consider the commissioning of detailed infrastructure topic specific assessments of infrastructure supply and demand modelling for the medium and long term to provide a more robust evidence base when planning over 20 year timeframes which often exceed any organisation's planning horizon. This would support effective planning past the 5 - 10 years as is currently undertaken.
- Continued joint working between the Staffordshire & Stoke-on-Trent authorities through sub regional partnerships such as the Local Enterprise Partnership and other local authorities in the West Midlands on strategic issues and priorities.
- The potential for an organised SIP Engagement Forum between the Staffordshire & Stoke-on-Trent local authorities and relevant external partners such as the health sector, utility companies, Environment Agency, Highways Agency, Network Rail and other operators to consider greater integration on long term growth and infrastructure planning.
- Consider the joining up of infrastructure modelling across a much larger geography, principally the West Midlands and wider Midlands and North West regions, for subjects including transport models, waste water modelling, and social infrastructure models. There should be holistic consideration of cross border requirements and aligned to planning and funding bid timetables. This does already happen to some extent via the Duty-to-Cooperate between adjacent local planning authorities.
- Use the evidence provided within the SIP and subsequent updated versions of it, to help review existing capital programmes to shape, prioritise and sense check project pipelines across a range of infrastructure work streams to optimise outcomes. The sequencing of capital infrastructure expenditure is very important. If this is done well it can offset future capital expenditure.
- Use the study as a tool for engagement with Central Government and the National Infrastructure Commission (NIC) in demonstrating the challenges faced in supporting growth across Staffordshire & Stoke-on-Trent and continue dialogue with the MHCLG, BEIS and other government departments on wider issues including the growth of London.
- Use the study as a tool for engagement with adjoining authorities.
- Consider the implications of infrastructure providers' decisions both now and in the future. This study has used standard metrics to determine requirements for some infrastructure elements (such as healthcare, libraries, community and leisure, youth services, social care accommodation etc.), but the actual requirements will be heavily dependent on service decisions on new delivery models which are affected by regulatory, financial and technological changes.
- Explore further links between sub regional infrastructure planning as presented within the Staffordshire & Stoke-on-Trent SIP and opportunities and synergies between the requirements identified in this work and the continued review of local authority assets as part of the One Public Estate programme.

07

ASSUMPTIONS, BENCHMARKS, CAVEATS

7.1 HOUSING TRAJECTORY CAVEATS

This study aims to present a vast amount of information in as simple and digestible format as possible. AECOM has received data from a number of stakeholders and partners and this section sets out key caveats that have been supplied alongside that data which should be taken into account when considering the figures presented in the SIP.

CANNOCK CHASE DISTRICT COUNCIL

Up to 2028 (end of current Local Plan period) most recent housing trajectory figures from the SHLAA 2018 have been utilised.

For beyond the plan period, the local housing need figure for CCDC (as at 2019, based on standard methodology) has been applied as national policy states this figure should be treated as the minimum amount of housing that local authorities should seek to accommodate. The Council is in process of testing what its Local Plan requirement will be so it should not be assumed that this will be the adopted requirement. It is being used indicatively for the purposes of this SIP study only and for consistency with the approach of the other Staffordshire LPAs.

EAST STAFFORDSHIRE BOROUGH COUNCIL

As part of the Borough Council's monitoring, the Council now has a more accurate understanding of the delivery of sites and have chosen to use the amended housing trajectory figures in the report. These figures include expected delivery on the sites identified in the Local Plan as well as a windfall component. The figures don't equal those set out in the Local Plan trajectory and this is because some sites have either come forward sooner than expected (and are therefore counted as a completion and no longer counted in the trajectory), or later than expected – with some likely to go beyond 2031.

LICHFIELD DISTRICT COUNCIL

No specific caveats included

NEWCASTLE-UNDER-LYME BOROUGH COUNCIL AND STOKE-ON-TRENT CITY COUNCIL

Newcastle-under-Lyme Borough Council and Stoke-on-Trent City Council continue to progress their joint local plan and have recently extended the proposed plan period to 2037. The quantum of housing required per annum has remained the same but there may be changes as the development of the plan progresses.

SOUTH STAFFORDSHIRE DISTRICT COUNCIL

The trajectory is not yet in an adopted plan, but is reflective of the 9,130 dwellings South Staffordshire has committed to test in its Local Plan review Issues and Options 2018. An additional 270 households have been added to the trajectory for 2037.

It should be noted that South Staffordshire District Council has only committed to test 19 years' worth of housing growth target at this stage, as the Council's proposed plan period only runs up to 2037. This means the Council currently only have political agreement to test 9,130 dwellings up to 2037.

STAFFORD BOROUGH COUNCIL

No specific caveats included

STAFFORDSHIRE MOORLANDS DISTRICT COUNCIL

The annual housing requirements for Staffordshire Moorlands relate to the emerging Local Plan for the period up to 2033 which is subject to examination. Housing growth figures beyond March 2033 are assumptions based on the extrapolation of emerging Local Plan requirements and subject to further consideration by the Council.

TAMWORTH BOROUGH COUNCIL

No specific caveats included

7.2 INFRASTRUCTURE NEED BENCHMARKS

Estimates of infrastructure need by type presented in Section 4 are informed by estimates of future needs resulting from growth identified in the report.

For clarity the following infrastructure topics have been assessed using benchmarks (which are subsequently presented in [Tables 7.1 to 7.6](#)):

- Health and Social Care
- Primary, Acute and Mental Healthcare
- Social Care Accommodation
- Community, Library and Youth Spaces
- Indoor and Outdoor Sports facilities
- Green Infrastructure
- Utilities
- Emergency Services

Each of the benchmarks set out in the following Tables has been applied to either:

- The projected increase in population to 2037/8, sourced from ONS population projections, as outlined in Section 3.1; or
- The number of necessary additional dwellings to 2037/8, derived from Strategic Market Housing Assessments and Objectively Assessed Need data, as outlined in Section 3.2.

Table 7.1

Health and Social Care Infrastructure Benchmarks

Topic	Details	Benchmark	Benchmark Source
Primary Health Care	People per GP	2,000	Planning Benchmark Standard
	GP per 1000 people	0.50	Planning Benchmark Standard
	Sq.m per GP	165	NHS Healthy Urban Development Model
Acute Hospitals	Beds per 1000 people	1.96	Ratio of Hospital Beds to England population 2016 (based on NHS England Data)
	Sq.m per Acute Bed	160	AECOM Cost Consultants benchmark data
Mental Health Hospitals	Beds per 1000 people	0.40	Ratio of Hospital Beds to England population 2016 (based on NHS England Data)
	Sq.m per Bed	85	AECOM Cost Consultant Benchmark data
Adult Social Care	Nursing Home places per 1000 persons over 75	19	From SCC Health and Care team - "We applied a broad correction of 42% on the extra care modelling of national (SHOPT tool), which would adjust your model down to roughly 26 per 1000 over 75's"
	Residential Care places per 1000 persons over 75	30	From SCC Health and Care team - "25% correction downwards for nursing, bringing your model down to 19 per 1000 aged over 75". Original figure is from The Housing Learning and Improvement Network (LIN) SHOP TOOL - Demand levels based prevalence rates from "More Choice, Greater Voice".
	Extra Care places per 1000 persons over 75	26	From SCC Health and Care team - "54% correction downwards for residential care homes, bringing your model down to 30 per 1000 over 75". Original figure is from The Housing Learning and Improvement Network (LIN) SHOP TOOL - Demand levels based prevalence rates from "More Choice, Greater Voice".
	Typical Nursing Care Unit Bed Number per facility	54	Staffordshire CC advice on average size of Staffordshire nursing facility
	Typical Residential Care Unit Bed Number per facility	20	Staffordshire CC advice on average size of Staffordshire extra care facility
	Typical Extra Care Unit Bed Number per facility	65	Staffordshire CC advice on average size of Staffordshire residential facility

Table 7.2

Staffordshire & Stoke-on-Trent Open Space and Recreation Benchmarks

Topic	Details	Benchmark	Benchmark Source
Outdoor Sports & Recreation	Playing Fields - ha. per 1,000 people	1.20	NPFA (Fields in Trust) standards (from 1.6 ha standard which includes 0.4ha for Parks which are covered under green infrastructure)
Children's play	Informal - sq.m per 1,000 Children (0-16)	6.90	GLA Play Space Standards - Recognised best practise superseding NPFA approach with 69% of requirement informal
	Designated Equipped sq.m per 1,000 Children (0-16)	3.10	GLA Play Space Standards - Recognised best practise superseding NPFA approach with 31% of requirement formal

Table 7.3

Staffordshire & Stoke-on-Trent Community Infrastructure Benchmarks

Topic	Details	Benchmark	Benchmark Source
Community Space	sq.m per 1,000 person	65.00	AECOM aggregate figures based on project Experience (Milton Keynes, Swindon, Exeter, East Hampshire)
Library Space	sq.m per 1,000 person	30.00	Museum, Libraries and Archive Council 2004 - Public Libraries, Archives and New Development, A Standard Charge
Adult Learning	Proportion of population in Adult Learning	0.005	Essex County Council - Developers' Guide to Infrastructure Contributions 2016 Edition
	Adult Learning Space Per FTE Student	2.33	Essex County Council - Developers' Guide to Infrastructure Contributions 2016 Edition
Youth Services	Clients per 1,000 children 0-15	26.00	Aggregate figures based on comparable project research
	Clients per Youth Facility	60.00	Essex County Council - Developers' Guide to Infrastructure Contributions 2016 Edition

Table 7.4

Staffordshire & Stoke-on-Trent Emergency Services Funding Benchmarks

Topic	Details	Cost	Benchmark Source
Ambulance	West Midlands Ambulance Trust expenditure (2018/19) - revenue outturn + capital expenditure	£280,291,000	WMAT Annual Report and Budget 2019/20
	Households in the West Midlands (2018, as per ONS 2014 projection)	2,400,000	ONS 2014 household projection
	Average WMAT expenditure per dwelling	£116.79	AECOM calculation
Fire & Rescue	Stoke and Staffs fire and rescue budget 2018/19 (revenue outturn + capital expenditure)	£42,816,000	https://www.staffordshirefire.gov.uk/media/2328/budget_consultation_december_2018_r6.pdf
	Households in Staffordshire & Stoke-on-Trent (2018, as per ONS 2014 projection)	483,000	ONS 2014 household projection
	Average expenditure per dwelling	£88.65	AECOM calculation
Police	Police budget 2018/19	£175,289,000	Staffordshire Fire & Rescue Budget Consultation December 2018
	Households in Staffordshire & Stoke-on-Trent (2018, as per ONS 2014 projection)	483,000	ONS 2014 household projection
	Average expenditure per dwelling	£362.92	AECOM calculation

Table 7.5

Local Authority Specific Sport Facility Benchmarks

	Swimming Pools	Sports Halls	Indoor bowls rinks	Artificial Turf Pitches	Benchmark Source
	Population per Pool	Population per Sports Centre	Population per centre	Population per Artificial Turf Pitch	
Cannock Chase	20,243	14,190	82,508	34,650	Sport England Facility Calculator 2019 - Local Authority Specific Metrics
East Staffordshire	20,210	14,286	82,781	34,674	Sport England Facility Calculator 2019 - Local Authority Specific Metrics
Lichfield	20,872	14,684	70,972	39,093	Sport England Facility Calculator 2019 - Local Authority Specific Metrics
Newcastle-under-Lyme	20,517	14,100	80,192	32,637	Sport England Facility Calculator 2019 - Local Authority Specific Metrics
South Staffordshire	21,061	14,754	69,252	39,651	Sport England Facility Calculator 2019 - Local Authority Specific Metrics
Stafford	20,803	14,422	74,794	35,323	Sport England Facility Calculator 2019 - Local Authority Specific Metrics
Staffs Moorlands	21,088	14,782	67,522	39,936	Sport England Facility Calculator 2019 - Local Authority Specific Metrics
Stoke-on-Trent	19,889	13,922	90,253	31,066	Sport England Facility Calculator 2019 - Local Authority Specific Metrics
Tamworth	20,117	14,104	83,752	34,674	Sport England Facility Calculator 2019 - Local Authority Specific Metrics

Table 7.6

Local Authority Specific Green Infrastructure Benchmarks

	Natural & Semi-Natural	Parks & Gardens	Amenity greenspace	Allotments	Benchmark Source
	ha Per 1000 people	ha Per 1000 people	ha Per 1000 people	ha Per 1000 people	
Cannock Chase	6.20	0.43	0.68	0.06	PPG 17 Cannock Chase Open Space Assessment 2009
East Staffordshire	1.52	1.32	0.68	0.22	East Staffordshire Borough Council PPG17 Open Space, Sport & Recreation Study Open Space Assessment Report June 2009
Lichfield	19.97	1.02*	1.57	0.06	Lichfield District Council Open Space Assessment 2016 *No benchmark available so average has been used
Newcastle-under-Lyme	14.00	3.51	1.03	0.11	Newcastle-under-Lyme Open Space Strategy 2017
South Staffordshire	7.38	10.24	1.60	0.12	South Staffordshire Council Open Space Strategy
Stafford	30.44	1.22	10.79	0.17*	Stafford Borough Council Open Space, Sport and Recreation Assessment Update June 2013 *No benchmark available so average has been used
Staffs Moorlands	5.44	0.14	1.07	0.28	Staffordshire Moorlands District Council Open Space Study Standards Paper October 2017
Stoke-on-Trent	3.62	0.81	1.20	0.28	Green Space Strategy Final Report November 2018 - City of Stoke-On-Trent
Tamworth	3.81	0.55	1.36	0.28	Tamworth Recreational Open Space Review 2011
Staffordshire & Stoke-on-Trent average	6.20	1.02	1.20	0.17	AECOM calculation of average

7.3 APPLICATION OF BENCHMARK MODELLING TO PROJECT SCHEDULE

Where local authority project lists have identified projects to support growth, AECOM have incorporated these into

the SIP Cost Model. However, in certain instances where project gaps exist, AECOM have applied benchmarks to assess the total impact of growth.

Table 7.7 below explains where the benchmarks have been applied. Section 7.2 Further elaborates on the benchmarks applied for each type of infrastructure and local authority.

Table 7.7

Local Authority Application of Theoretical Benchmarks

	Cannock Chase	East Staffordshire	Lichfield	Newcastle-under-Lyme	South Staffordshire	Stafford	Staffordshire Moorlands	Stoke-on-Trent	Tamworth
Roads	P	P	P	P	P	P	P	P	P
Public Transport	P	P	P	P	P	P	P	P	P
Rail	P	P	P	P	P	P	P	P	P
Active Modes	P	P	P	P	P	P	P	P	P
Early Years, Primary & Secondary Education	P+B	P+B	P+B	P+B	P+B	P+B	P+B	P+B	P+B
Further & Higher Education	P+B	B	B	P	B	P	B	P	B
Primary Healthcare	P	P	P	P	B	P	P	P	B
Acute & Mental Healthcare	B	B	B	B	B	B	B	P+B	B
Adult Social Care	B	B	B	B	B	B	B	B	B
Libraries	P+B	P+B	P+B	P+B	P+B	P+B	P	P+B	P
Community & Youth	B	B	B	B	B	B	B	B	B
Outdoor Sports	P+B	P+B	P+B	P+B	P+B	P+B	P	P+B	P
Indoor Sports	P	B	B	B	B	P	P	B	B
Green Infrastructure	P+B	B	P+B	B	P+B	B	P+B	B	P+B
Energy (Electricity & Gas)	B	B	B	B	B	B	B	B	B
Water Supply	B	B	B	B	B	P+B	B	B	B
Waste Water	B	B	B	B	B	P+B	B	B	B
Waste	B	B	B	B	B	B	B	B	B
Broadband	B	B	B	B	B	B	B	B	B
Flooding & Drainage	P	P	P	P	P	P	P	P	P
Emergency Services	B	B	B	B	B	B	B	B	B

Project List
Benchmark
Project List & Benchmark

7.4 INFRASTRUCTURE COSTING SOURCES AND CAVEATS

The following infrastructure topic costs are based primarily on the following sources although this list is not comprehensive:

- Highways - SCC / SoTCC / Local Authority IDPs
- Motorways - Highways England / SCC / SoTCC / Local Authority IDPs
- Rail - Network Rail / SCC / SoTCC / Local Authority IDPs
- Public transport and other transport - SCC / SoTCC / Local Authority IDPs
- Broadband - Superfast Staffordshire Broadband, SCC
- Flood Defences - SCC / SoTCC / Environment Agency

AECOM costing estimates are provided within this document and should be caveated as high level estimates given a lack of detailed scheme information and in many cases applied to long term demand forecasts to 2038.

These cost caveats apply to the following topics within this report:

- Education
- Adult Learning
- Health & Social Care
- Community, Library and Youth Spaces
- Open Space Provision
- Indoor and Outdoor Sports facilities
- Green Infrastructure
- Electricity Connections
- Gas Connections
- Waste
- Potable, Waste and Surface Water Infrastructure
- Broadband connections

The following caveats apply to all costing provided by AECOM:

- The information on which the cost estimates are based is limited. As such, all costs are to be treated as indicative of the type of works stated rather than a specific estimate of the actual works.
- The works are assumed to relate to level greenfield sites with good access and no abnormal restrictions in respect of working hours and the like. AECOM has excluded all land purchase, demolition and site preparation that may be required.
- In respect of ground conditions, AECOM has excluded the impact of encountering archaeological remains, contamination, high water table level, major 'soft spots' and underground obstructions. Costings also exclude encountering and diverting existing utilities and drainage.
- As AECOM does not have sufficient details of the individual sites that will be developed, we have excluded any allowances for external works i.e. all works outside of the building footplate.
- All costs are based on a notional project that starts and completes in 2018 and therefore all inflation costs are excluded.
- AECOM has excluded professional fees and survey works and all other consultants fees and planning / building regulation costs that would apply to the works.
- AECOM has excluded all phasing and temporary works that could apply to the works, all maintenance and operational costs.
- AECOM has excluded all loose fixtures, fittings and equipment and in particular specialist equipment.
- AECOM has excluded all VAT.

7.5 ASSUMPTIONS ON EXPECTED FUNDING

To prepare this document a significant quantity of data on future infrastructure projects and costs has been obtained from a variety of sources, including SCC and SoTCC officers, LPA IDPs (at various stages of finalisation) and other infrastructure providers. Where data has not been available, actual project data has been supplemented with theoretical modelling about the quantity and average cost of infrastructure required based on accepted benchmarks (see Section 7.2).

Significantly less certainty and reliable data is available about the likely sources of future funding for these projects. Where this data has not been available, actual funding data has been supplemented with theoretical modelling based on assumptions about the likely contribution of various funding sources.

Accordingly, caution should be applied in interpreting these estimates, in particular where infrastructure need has been determined theoretically, then costed using average benchmark costings, and funding need attributed on the basis of assumptions about likely funding availability.

We recommend that future iterations of this study are informed by further data, research and analysis to refine and improve these assumptions.

Public & Private Sector Funding Assumptions

The study estimates likely funding towards infrastructure from various public and private sector infrastructure providers and partners, for the purpose of estimating the scale of the gap between the cost of needed infrastructure and likely available funding to 2038.

As the exact level of public and private sector funding is impossible to forecast, a rule of thumb percentage approach has been used. The percentage rates applied in the study are set out in [Table 7.8](#).

A detailed analysis of potential public and private sector sources, undertaken in partnership with the relevant LPAs, is required to further refine these assumptions on expected funding levels.

Developer Contributions

The study also estimates likely funding towards infrastructure from developer contributions, for the purposes of estimating the scale of the gap between the cost of needed infrastructure and likely available funding to 2038. In this context it is assumed that all the dwellings expected to be constructed in Staffordshire & Stoke-on-Trent (as set out in Section 3) will be built.

This estimate of contributions from developers should not be treated as secured funding, rather a source of expected funding for the purposes of the estimates in this study.

A detailed analysis of potential contributions incorporating Section 106 and CIL rates undertaken in partnership with the relevant LPAs is required to refine these assumptions on expected funding levels further.

Table 7.8

High level Funding Assumptions for Modelling

Infrastructure Projects	Working Assumption on Expected Source after Developer funding	% Funded
Strategic Roads	Central Government (DFT)	85%
Public Transport	Private Operators / DFT	10-15%
Education (Schools)	Central Government (DFE)	0-10%
Early Years	Private Sector Investment	100%
Healthcare	National Health Service (NHS)	10%
Social Care	Private Sector Investment	25%
Energy	Utility Companies	100%
Water and Sewage	Utility Companies	100%
Waste	Private Operators	50%
Flood Defences	Environment Agency	36.5%

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