

Minerals Local Plan for Gloucestershire

2018-2032



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Adopted March 2020



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This document certifies that Gloucestershire County Council has successfully demonstrated compliance with the Building with Nature Standards for their local development plan document titled Minerals Local Plan for Gloucestershire (2018 – 2032) (Adopted March 2020)

The status of the application is:

Building with Nature Accreditation (Good)

This award was given on 3 July 2020 based on an Assessment of the Minerals Local Plan for Gloucestershire (2018 – 2032) by Carol Somper and Audit by Dr Gemma Jerome.

Accreditation approved by:

Gemma Jerome

A handwritten signature in grey ink that reads 'Gemma'.

Foreword

Gloucestershire is a great place to live, work and enjoy. To make the most all that the county has to offer, the County Council is committed to improving the quality of life for every community, supporting businesses in their quest to succeed and thrive, and providing the right conditions for the natural environment and ecosystem services to flourish.

The ability to use the county's valuable mineral resources in a sustainable way will be key to realising the ambitions for Gloucestershire and for unlocking its full potential as important contributor to the nation's prosperity. Local minerals are needed to build and maintain the homes we live in, the places we work and the infrastructure that allows us to move around, access services, and support our much-prized natural environment.

Many challenges lie ahead in delivering a steady and adequate supply of minerals from within Gloucestershire over the coming years, not least the fact they are a diminishing, finite, and often constrained resource that can only be worked where they are found. It is vitally important therefore that good and transparent decisions are made about future mineral developments.

The Minerals Local Plan for Gloucestershire will provide an up-to-date policy framework for assessing the acceptability of mineral development proposals until the end of 2032. It will give certainty for industry in an ever competitive, changeable and globalised economy and will ensure appropriate and effective measures are put in place to safeguard the health, well-being and economic prospects of local communities where the risk of possible adverse impacts are identified. The need to protect Gloucestershire's natural environment will not be unduly compromised or diminished by the delivery of the plan, nor will the opportunity to secure enduring and meaningful benefits, particularly through support for high quality site restoration once mineral developments have ceased.

As Gloucestershire seeks to play its part in addressing the big, strategic issues facing us all over the coming decades, the Minerals Local Plan for Gloucestershire will be an important tool for the County Council and other key decision makers. The plan contains strong and progressive measures to advance local action on tackling climate change as well as help bolster the resilience of our local environment to climate change impacts that are already emerging. It will complement efforts to decarbonise our economy by supporting the transition to low and zero carbon technologies and encourage the expansion of clean, green growth. It will also champion the mainstreaming of circular business practices by backing greater recycling and the more efficient use of primary mineral resources.



Councillor Nigel Moor
Cabinet Member for Environment and Planning

Table of Contents

Section 1 Introduction.....	1
Section 2 Gloucestershire – a spatial portrait	6
Section 3 Drivers for change	17
Section 4 Vision and objectives	21
Section 5 Strategy.....	27
Section 6 Secondary and recycled aggregate supplies	30
Policy SR01 Maximising the use of secondary and recycled aggregates	31
Section 7 Mineral safeguarding	34
Policy MS01 Non-mineral developments within MSAs	37
Policy MS02 Safeguarding mineral infrastructure	41
Section 8 the future supply of minerals.....	44
Policy MW01 Aggregate provision.....	49
Policy MW02 Natural building stone	51
Policy MW03 Clay for civil engineering purposes.....	56
Policy MW04 Brick clay	60
Policy MW05 Coal.....	63
Policy MW06 Ancillary minerals development.....	68
Section 9 Areas for future aggregate working	71
Policy MA01 Aggregate working within allocations	73
Policy MA02 Aggregate working outside of allocations	76
Section 10 Development Management	80
Policy DM01 Amenity	85
Policy DM02 Cumulative impact.....	93
Policy DM03 Transport	96
Policy DM04 Flood risk	101
Policy DM05 Water resources	108
Policy DM06 Biodiversity and Geodiversity	114
Policy DM07 Soil resources	121
Policy DM08 Historic environment.....	125

Policy DM09 Landscape.....	129
Policy DM10 Gloucester–Cheltenham Green Belt	135
Policy DM11 Aerodrome safeguarding and aviation safety	137
Section 11 Mineral Restoration.....	139
Policy MR01 Restoration, aftercare and facilitating beneficial after-uses	139
Section 12 Managing and monitoring plan delivery	147
Minerals Local Plan for Gloucestershire (2018 – 2032) Monitoring Schedule....	148
Appendix 1 Key diagram	156
Appendix 2 Safeguarded mineral infrastructure sites	157
Appendix 3 Forecast of aggregate supplies and provision figures .	159
Appendix 4 Detailed development requirements for plan allocations	161
Allocation 01: Land east of Stowe Hill Quarry	162
Allocation 02: Land west of Drybrook Quarry	169
Allocation 03: Depth extension to Stowfield Quarry	175
Allocation 04: Land northwest of Daglingworth Quarry	180
Allocation 05: Land south and west of Naunton Quarry	186
Allocation 06: Land south east of Down Ampney	192
Allocation 07: Land at Lady Lamb Farm, west of Fairford	199
Appendix 5 Schedule of former MLP Policies that have been superseded / deleted by the adoption of the Minerals Local Plan for Gloucestershire (2018 – 2032)	205



01 **INTRODUCTION**

Section 1 | Introduction

The importance of minerals

1. Minerals underpin our way of life. They provide the construction materials upon which we all rely for the homes we live in, the places we work and the infrastructure that allows us to move around, keep us healthy, ensures our safety and supports the natural environment. Minerals are integral to our social and economic well being by supporting energy generation, manufacturing, healthcare production and agriculture. An adequate and steady supply of minerals is of national importance and critical to the nation's growth and prosperity.
2. However, minerals are a finite resource that can only be worked where they are found. It is vital therefore we only use what is needed, that maximum benefits are achieved and other vital services and facilities such as the natural environment and the amenity of communities are not unduly compromised. In doing so, the long-term availability of mineral resources for future generations will be secured.

Minerals planning in Gloucestershire

3. Gloucestershire County Council (GCC) is the Mineral Planning Authority (MPA) for the entire county. It has a statutory responsibility to plan for future supplies of minerals from within its area and to determine planning applications for new local mineral developments.
4. An important tool for the MPA is the production of a minerals local plan. The County Council has previously prepared such a plan – the Gloucestershire Minerals Local Plan 1997-2006 (the 'MLP'), which was adopted in 2003. Since this time, the MLP has provided a comprehensive local policy framework that has underpinned the provision of minerals and helped guide decisions on planning applications for mineral developments.

Responding to change

5. Since the adoption of the MLP over a decade ago, many changes in circumstance have taken place. The demand for and the supply pattern of local minerals to and from

Gloucestershire has evolved and the level of permitted reserves has depleted. This means new mineral resources need to be investigated to see how best they may contribute to future demand. Furthermore, national planning policies and guidance for minerals has undergone significant reform. Consolidated national policy and practice guidance has been introduced through the National Planning Policy Framework (NPPF) 2012 and subsequent amendments along with Planning Practice Guidance (PPG) (2014)¹. New concepts and approaches have come into being such as the preparation of Local Aggregate Assessments (LAAs).

6. This plan has been prepared in accordance with the NPPF 2012 under transitional arrangements outlined in paragraph 214 of the NPPF 2019. The policies contained within the NPPF 2019 (or subsequent NPPF amendments) along with Planning Practice Guidance are material considerations which may be taken into account when determining planning applications for mineral developments.

A plan for the future

7. This plan when adopted will replace and update all aspects of the Gloucestershire Minerals Local Plan (1997 -2006). It has been prepared in a positive manner, focused on achieving sustainable development. At its core is the management of mineral resources to support: - local and national economic well-being; the safeguarding of Gloucestershire's local communities and those nearby who may be affected by mineral developments; and the protection and enhancement of the natural environment including the integrity of the county's multi-functional green infrastructure network of landscape elements and features and valued built assets. Measures that contribute towards advancing the mitigation of climate change and that seek to help improve our resilience and ability to adapt to climate change impacts are also imbedded throughout in the plan.
8. The plan provides a clear policy framework for how mineral developments should take place across Gloucestershire. It is a forward thinking plan with a future vision for the county and objectives to achieve this from 2018 through to the end of 2032². It also establishes the steps to deliver the plan's ambitions and outlines measures to assess progress and effectiveness along the way.

¹ National Planning Policy Framework (NPPF) 2012 can be obtained at: - <https://www.gov.uk/guidance/national-planning-policy-framework>
Planning Practice Guidance (PPG) can be obtained at: - <https://www.gov.uk/government/collections/planning-practice-guidance>

² National Planning Policy Framework (NPPF) 2012, paragraph 157, bullet point 2 advises that local plans should have a 15-year time horizon. Presently the mineral plan's project timetable (as set out within the up to date Minerals & Waste Development Scheme – MWDS) anticipates the plan's adoption towards the end of 2018 / early 2019. 15-years from the earliest date generates a time period of between 2018 and 2032 inclusive.

9. Robust and extensive evidence gathering and analysis has been central to the plan's preparation, as have been the views expressed by interest groups, organisations, businesses, regulatory bodies and individuals. Extensive public consultation has taken place involving the release of numerous reports and evidence papers to help explain the different options and choices presented by the MPA. The plan's overall strategy, objectives, local policies and allocations have been assessed on numerous occasions. Since autumn 2006, four major consultation events have taken place³. These have allowed public scrutiny of early issues and options for the plan, initial preferred options put forward by the MPA, a review of candidate site options along with a draft policy framework and a comprehensive draft of the plan.
10. The plan has also been strategic in its approach by taking into account wider mineral planning issues that have had an influence beyond the administrative area of Gloucestershire and have also influenced matters within the county. It has successfully met with the 'Duty-to-Cooperate' requirements by reflecting the outcome of proactive, ongoing and meaningful engagement with key bodies. These include the six district councils of Gloucestershire; neighbouring and nearby local authorities, and other key organisations likely to have an influence on future mineral developments. The ambitions of GFirst LEP – the Local Enterprise Partnership and the Gloucestershire Nature Partnership (GLNP) have also been considered.
11. Sustainability Appraisal (SA) reports have been prepared to inform each step of the plan's preparation. The SA process has ensured all reasonable alternative options and approaches have been appropriately considered and effectively evaluated. Habitat Regulations Assessment (HRA) work has also made an invaluable contribution to the plan by ensuring sites of environmental significance at an international level have been properly scrutinised and that sufficient protections will be put in place to ensure their continued health.

Legal status and use of the plan

12. The plan complies with the legal requirements of the Planning and Compulsory Purchase Act 2004, Planning Act 2008 and Localism Act 2011. Its production has also

³Issues & Options consultation for a Minerals Core Strategy (MCS) took place in September 2006. This was followed by a Preferred Options consultation in early 2008. The next major consultation commenced several years later in June 2014 and sought to accommodate many of the legislative and national policy changes brought in since early 2008. This included consultation on candidate site options and a suite of draft policies for potential inclusion within a full draft Minerals Plan for Gloucestershire. An addendum to the 2014 consultation was also consulted upon in February 2015. Between September and November 2016 a final early stage consultation took place, which presented a full and comprehensive minerals local plan for public scrutiny. More details on the plan's preparation can be found online at: - <http://www.gloucestershire.gov.uk/planning-and-environment/planning-policy/minerals-local-plan-for-gloucestershire/>.

been in accordance with the Town and Country Planning (Local Planning) (England) Regulations 2012.

The plan should be read and interpreted in its entirety with due regard paid to all of the relevant policies and proposals included within it.

13. The plan forms part of the statutory development plan for Gloucestershire in respect of minerals development. Nevertheless, it should also be read in conjunction with other parts of the local development plan, where appropriate to do so. For all waste-related matters, the Gloucestershire Waste Core Strategy (WCS), adopted in 2012 and the remaining saved adopted policies contained within the Gloucestershire Waste Local Plan 2002 – 2012 need to be considered. Although this will change over time, as the suite of existing adopted policies are reviewed⁴. All other development types included housing, commercial, energy, retail, infrastructure and recreational facilities will require a review of the saved or adopted local plans of Gloucestershire's six district, borough and city councils.

Mineral developments covered by the plan

14. Minerals of economic value in Gloucestershire that are presently worked and / or could be in the foreseeable future include: - clay; coal; limestone; sand and gravel (including sharp and soft sands); and sandstone. These minerals are mostly found at or near the surface and are concentrated in four main resource areas – the Cotswolds; Forest of Dean; Seven Vale; and the Upper Thames Valley. Coal is present underground, although at relatively shallow depths within the Forest of Dean resource area.
15. The potential for other onshore hydrocarbons, including both oil and gas have been explored in the past within Gloucestershire. However, at present, no proposals including initial exploration have been brought forward. No new licenses, which are a requirement before any meaningful investigation can be considered in the county, have been made available by the Government.

⁴ The Gloucestershire Minerals & Waste Development Scheme (MWDS) sets out a three-year project timetable for the preparation of new minerals and waste development plan policies. The latest version can be obtained at:- <http://www.gloucestershire.gov.uk/planning-and-environment/planning-policy/minerals-and-waste-development-scheme-mwds/>

How to use the plan

16. To help users navigate through the plan, it has been divided into a number of sections: -

- **Section 1** | an introduction to minerals planning within Gloucestershire and discussion concerning the preparation of a new minerals local plan for the county;
- **Section 2** | a spatial portrait that describes present day Gloucestershire and introduces the minerals likely to be of economic importance over the plan period;
- **Section 3** | the drivers for change that the minerals plan will seek to reflect and act upon where necessary and appropriate, principally to the advantage of Gloucestershire;
- **Section 4** | the plan's vision of the future that highlights what success may look like, and the objectives that will explain how, through targeted actions, the vision will be achieved;
- **Section 5** | the overall strategy for the plan, which details the policy framework and strategic approach being taken to deliver the plan's objectives;
- **Sections 6,7,8,9** | these sections make up a substantial part of the plan's core policy content. They include the delivery policies for the plan's themes: – reducing the demand for primary minerals (section 6); safeguarding mineral resources (section 7), making provision for the supply of minerals (section 8); and allocating areas for future aggregate working (section 9);
- **Sections 10 and 11** | complete the plan's core policy and include the full suite of development management policies (section 10). The plan's final theme – restoration, aftercare and facilitating beneficial after-uses (section 11) is also included;
- **Section 12** | explains how the plan will be monitored to ensure it is working effectively and contributing the delivery of the strategy, objectives and spatial vision.



02 GLOUCESTERSHIRE - A SPATIAL PORTRAIT

Section 2 | Gloucestershire – a spatial portrait

18. The spatial portrait is an illustration of present day Gloucestershire. It offers a summary of the state, form and geographic distribution of the county's built and natural environments, key assets and communities. It also reviews the nature and health of the local economy, ambitions for growth and summary description of local minerals of known and potential economic significance and their broad distribution throughout the county.

Location

19. Gloucestershire is a non-metropolitan, shire county located in the northern most part of the South West of England covering an area of just over 1,000 square miles. It borders Wales, the West Midlands and the South East and has a total of eight neighbouring county and unitary authorities – Monmouthshire, Herefordshire, Worcestershire, Warwickshire, Oxfordshire, South Gloucestershire, Swindon and Wiltshire.

Key geographic features

20. Gloucestershire has a strong rural character and is well known for its diverse environments and scenic beauty. The west of the county is dominated by the upland area of the Forest of Dean, consisting of semi-natural and ancient woodland. The Cotswold hills lie to the east of the county and are characterised by an undulating limestone plateau given over mostly to grassland. A central belt running roughly north-to-south contains the Severn Vale, a flat, fertile, valley floor where the lower reaches of the River Severn evolve into a tidal estuary. The meadows of the Upper Thames Valley (UTV) lie in the far south-east of the county; a largely riverine environment home to the upper reaches of the River Thames.

Governance

21. The local administration comprises of Gloucestershire County Council (GCC) and six local district councils - Cheltenham and Tewkesbury Boroughs, Gloucester City, Forest of Dean, Cotswold and Stroud. Gloucestershire's local authorities also share a common geography with the Gloucestershire Police Constabulary, Police and Crime Commissioner, Gloucestershire Clinical Commissioning Group, the Local Economic Partnership – GFirst LEP and the Gloucestershire Local Nature Partnership (GLNP).

Population

22. At mid-2016 Gloucestershire's population was estimated to be just over 620,000⁵. The proportion of people aged 60 years + in the county is higher than the national average⁶.
23. Notable population growth is projected over the coming years, particularly in and around the county's main built-up areas. By 2032 this could result in an additional 70,000 residents⁷. Recent growth has predominately been fuelled by people choosing to relocate to Gloucestershire from elsewhere in the UK.

Built-up areas and notable local settlements

24. Nearly 60% of the county's residents are centrally located, mostly within the Severn Vale in the main built-up areas of Cheltenham and Gloucester, but also the settlements that make up the Stroud Valleys' towns⁸. These locations provide the key administrative, commercial and employment centres for the county.
25. Other notable local settlements include: - Tewkesbury and Bishop's Cleeve; the historic market towns of the Cotswolds – Cirencester, Tetbury, Moreton-in-Marsh and Stow-on-the-Wold; Cam and Dursley within the Seven Vale; and the three forest towns of Cinderford, Coleford and Lydney. Parts of Gloucestershire are also deeply rural, particularly areas of the Forest of Dean and the Cotswolds, some of which are the least densely populated locations in England⁹.

Economy

26. The economy of Gloucestershire is supported by nearly 30,000 businesses and employs in the region of 290,000 people¹⁰. It is vibrant and diverse with strong numbers of business start-ups and competitive business survival rates¹¹. Economic output from Gloucestershire was close to £15 billion a year by the end of 2014¹². Influential sectors present across the county include: manufacturing – strongly linked to

⁵ Source: ONS Mid-Year (2016) Population Estimates for UK, England and Wales, Scotland and Northern Ireland published in June 2017 - <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwales/scotlandandnorthernireland>

⁶ The proportion of people aged over 60yrs as per the 2016 mid-year estimate for Gloucestershire was 27%. The equivalent for the UK as a whole was 24%

⁷ Source: ONS (2016) 2014 based sub-national population projections by Local Authorities in England: - <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/datasets/localauthoritiesinenglandtable2>

⁸ The Stroud Valleys towns are made up of the individual settlements of Chalford, Minchinhampton, Nailsworth, Stonehouse, Stroud, and Woodchester

⁹ As of the 2011 Census the population density for Cotswold district was 73 people per km². This was the 316th least densely populated authority area out of 326 English district councils.

¹⁰ Source: Strategic Economic Plan for Gloucestershire (2014): - <http://www.gfirstlep.com/gfirst-LEP/Our-Priorities/Our-Vision/>

¹¹ The Gloucestershire LEP area is ranked 2nd in the country for having the highest survival rate for new businesses.

¹² Source: ONS (2016) GVA for LEPs: 1997 and 2014 and NOMIS Labour Market Profile – Gloucestershire (2014) <http://www.ons.gov.uk/economy/grossvalueaddedgva/articles/gvaforlocalenterprisepartnerships/1997to2014> and <https://www.nomisweb.co.uk/reports/lmp/la/1941962903/report.aspx#tabrespop>

aeronautical engineering and medium-to-high technology activities; service industries; public administration and healthcare; and financial, business and professional services.

27. The rural economy has become increasingly diverse and is no longer dominated by traditional primary industries. Leisure and tourism industries are a growing part of the local economy and are becoming increasingly significant throughout the rural areas such as the Forest of Dean and the Cotswolds. In the recent past both districts have experienced some of the largest increases in terms of visitor numbers and tourism spend in Gloucestershire¹³. Leisure and tourism is also making an invaluable contribution to the economic diversity of the county's main urban areas. In total upwards of 25,000 jobs are linked to the leisure and tourism industries, which collectively have an annual turnover of around £1 billion¹⁴.

Transport Infrastructure

28. Gloucestershire contains strategic road links to major regional centres such as Birmingham, Bristol and Swindon. It contains sections of two national motorways – around 30 miles of the M5 between junctions 9 to 13, and close to 10 miles of the M50. Just over 40 miles of the A40 major trunk road runs east-to-west across the county. A small part of the A46 trunk road is also present incorporating the link to the M5 at junction 9. Other main highway routes used by private and commercial traffic including HGVs are generally focused on more strategic connections that often run beyond Gloucestershire into the surrounding counties and other local authority areas. However, these routes also act as the main link between the county's key settlements. A sizeable network of rural roads of varying capacities exists with some local communities subject to accessibility challenges. In total Gloucestershire's highway network covers a distance of over 3,300 miles¹⁵.
29. The county is located at a key point on the UK rail network with a concentration of routes running into and through the central Severn Vale area. It includes the Cross-Country line between Bristol and Birmingham and the inter-regional routes of the North Cotswolds (Oxford to Worcester); South Cotswolds (Swindon to Gloucester); and Cardiff to Midlands line (via Gloucester and Cheltenham). There are nine stations in Gloucestershire handling nearly 5 million passenger journeys a year¹⁶. A limited rural rail network is also present. There are no active commercial freight depots or terminals

¹³ Source: Visit Britain / Visit England (2016) Great Britain Tourism Survey (GBTS) 2006 – 2015, Local Authority area analysis <https://www.visitbritain.org/destination-specific-research>

¹⁴ Source: The Economic Impact of Gloucestershire's Visitor Economy (2014) commissioned by Cotswold District Council <https://www.cotswold.gov.uk/media/1390788/Cotswold-Tourism-report-2014.pdf>

¹⁵ Gloucestershire's Local Transport Plan (2015-2031) Gloucestershire's Highway Network http://www.gloucestershire.gov.uk/media/2228/11a - pd4 - highways_pd_summary1-66814.pdf

¹⁶ Source: Gloucestershire Local Transport Plan (LTP) 2015-2031 Policy Document PD5: Rail <http://www.gloucestershire.gov.uk/transport/gloucestershires-local-transport-plan-2015-2031/highways/>

present within the county although significant volumes of freight pass through the Gloucestershire rail network.

30. Sharpness Docks at the head of the Severn Estuary is the county's only remaining commercial port. It handles seafaring vessels up to 6,000 tonnes, accepting cargoes such as dry bulks, processed minerals and timber. The docks provide multi-modal onwards transport opportunities including the possibility for rail and a connection to the 15-mile Gloucester-Sharpness Canal, which runs northwards into the centre of Gloucester's historic docks.
31. Gloucestershire airport at Staverton is a small regional airport that handles mostly private and business flights. There is also a privately owned aerodrome near to Cirencester called Cotswold airport, which straddles the county boundary with Wiltshire. RAF Fairford situated within the Upper Thames Valley is a strategic operational Royal Air force station that currently supports the United States Air Force (USAF).

Main designations and green infrastructure

32. Over half of Gloucestershire falls within one of three Areas of Outstanding Natural Beauty (AONBs) all of which extend beyond the county boundary. The Cotswold AONB is to the east, the Wye Valley AONB lies to the west and the Malvern Hills AONB covers a small part of the county's northern border with Worcestershire. There are a number of designated European Sites including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), two of which are globally-recognised as they have been afforded Ramsar status. Countywide there are over 120 Sites of Special Scientific Interest (SSSIs) and over 750 Local Wildlife Sites (LWSs) all of which contribute to a multi-functional green infrastructure network of landscape elements and features¹⁷.
33. The area between Cheltenham and Gloucester and Bishop's Cleeve and Cheltenham, is designated as Green Belt. It covers less than 7,000 hectares and is the second smallest in England¹⁸.
34. Gloucestershire is geologically diverse and contains outcrops from throughout most of earth's history. There are around 160 Regionally Important Geological & Geomorphological Sites (RIGS), a number of which also have SSSI status¹⁹. Two

¹⁷ <https://www.gcer.co.uk/>

¹⁸ Based upon the joint data analysis carried out by CPRE and Natural England in 2010, entitled *Green Belts a Greener Future*

¹⁹ http://www.gloucestershire.gov.uk/media/5918/amr_2012-2013-62599.pdf

nationally recognised Geoparks are also present – the Cotswold Hills and the Abberley & Malvern Hills²⁰.

Historic assets

35. The county has a wealth of historic assets including around 500 Scheduled Monuments, nearly 13,000 Listed Buildings²¹ and close to 31,000 other locally recorded archaeological sites. Gloucester Cathedral and historic docks; the regency architecture of Cheltenham; rural Cotswold market towns and villages; and the industrial heritage of the Forest of Dean and Stroud Valleys exemplify the county's rich and diverse built historic assets. Gloucestershire is also well regarded for its Pre-historic and Roman archaeology that survive as visible monuments and below ground deposits.

Plans for growth

36. The Gloucestershire Strategic Economic Plan (SEP) sets out the collective local ambitions for the development of the county's economy into the early 2020s. It also lays down the foundations for a medium to long-term growth strategy throughout the coming decade and beyond. The aim of the SEP is to stimulate key business sectors, open up new and / or to expand employment opportunities along key transport routes; and to create an attractive and competitive environment for inwards investment, continued innovation, and job creation focused on encouraging young people to stay or move into Gloucestershire²². Supported measures contained within the SEP target the delivery of at least 5,000 new jobs and over 1,000 new apprentices by 2021²³.
37. A number of planned transport infrastructure projects align with the SEP's ambitions. These include continued maintenance and improvements to stretches of the M5 and A40 and upgrades to the road network and the public transport infrastructure within the main built-up areas – concentrated on Gloucester City²⁴. In addition, an emerging nationally-significant highway project is currently under consideration for the county by Highways England²⁵. It will involve upgrading a 3-mile stretch of the A417 between the Brockworth bypass and Cowley roundabout and is known locally as the "Missing

²⁰ Information about the Cotswold Hills Geopark can be found at: - <http://www.cotswoldhillsgeopark.net/index.html>. For the Abberley and Malvern Hills Geopark this can be viewed at: <http://geopark.org.uk/pub/>.

²¹ <https://www.historicengland.org.uk/listing/the-list/results?q=gloucestershire&county=Gloucestershire&hc=1&searchtype=nhlesearch>

²² Summary of page 14 of the Gloucestershire Strategic Economic Plan (SEP) 2015-2022 – *What will be better as a result of this Plan?*

²³ Source: Summary of the Gloucestershire Growth Deal (2015) <https://www.gfirstlep.com/about-us/our-vision/gloucestershire-growth-deal/>

²⁴ Key LEP-funded transport infrastructure projects and local delivery priorities are identified on the LEP website <http://www.gfirstlep.com/Our-Priorities/Our-Vision/>

²⁵ Between February and March 2018 Highways England underwent a 'route options' public consultation for the A417 'Missing Link' project. Details relating to this can be obtained at: - https://highwaysengland.citizenspace.com/he/a417-missing-link/supporting_documents/A417%20Public%20Consultation%20Brochure.pdf

Link”. If taken forward, construction is envisaged to commence in the early part of the 2020’s.’

38. Significant housing and employment growth is also being planned through local plans prepared by the county’s district councils. Significant urban development, regeneration and renewal and a number of urban extensions have been identified for the built-up areas of the Severn Vale – mostly in and around Cheltenham and Gloucester City. By the early 2030s an additional 30,000+ new homes will have been built along with commercial developments capable of supporting upwards of 40,000 new jobs²⁶. Further housing and employment growth is envisaged elsewhere throughout the county, mostly as additions to existing local settlements. Overall, planned growth outside of Gloucestershire’s main urban areas could generate a further 30,000 homes²⁷.

Mineral resources in Gloucestershire

39. The county’s mineral resources of economic importance both at present and potentially in the future can be divided into six broad categories: -

- Limestone;
- Sand and gravel;
- Sandstone;
- Clay;
- Coal; and
- Oil and gas²⁸

Limestone

40. There are two main types of limestone deposits present in Gloucestershire: - Carboniferous limestones found within the Forest of Dean and Jurassic limestones which make up the Cotswold Hills.
41. The county’s limestone deposits have economic significance as a crushed rock aggregate. They are also a prominent local source of building stone, a soil improver (agricultural lime) and used to support other specialist industrial processes.
42. Carboniferous limestones are the most productive minerals locally by volume, due to their comparable flexibility of end uses. They are mostly worked as a crushed rock

²⁶ Source: Adopted Gloucester-Cheltenham-Tewkesbury Joint Core Strategy (GCT-JCS) (December 2017) - <https://jointcorestrategy.org/home>

²⁷ The planned housing figure for ‘*elsewhere throughout the county*’ is based on an accumulation of housing provision numbers targeted within the Adopted Stroud Local Plan (2015), Adopted Forest of Dean Core Strategy (2013), emerging Cotswold District Local Plan; and the remainder of the Gloucester-Cheltenham-Tewkesbury Joint Core Strategy outside of Gloucester and Cheltenham and the areas surrounding them that have been identified as urban extensions.

²⁸ See the explanation provided at paragraph 55 concerning the current potential for oil and gas development within Gloucestershire.

aggregate and used in products requiring high strength materials such as concrete and roadstone.

43. Jurassic limestones, which are much softer but more distinctive and diverse in colour and texture, are well known as a desirable natural building stone and serve both a local market and further afield. They offer more limited opportunities as an aggregate for concrete and some low-grade roadstone production, but can provide a local low quality aggregate such as construction fill and pipe bedding.
44. The overall distribution of Gloucestershire's limestone is not confined to the county's administrative boundaries. In particular, Jurassic limestones extend over a very wide area including parts of South Gloucestershire and Wiltshire in the south, Oxfordshire in the east, and Warwickshire and Worcestershire to the north-east. Similar Carboniferous limestones to that of the Forest of Dean can be found in neighbouring and nearby parts of South Wales and immediately to the south-west of the county within South Gloucestershire. Other sub-national limestone resources of economic importance are located in North Somerset and Somerset.

Sand and gravel

45. Gloucestershire's sand and gravel resources comprise of unconsolidated superficial or drift materials mostly made up of river terrace and some sub-alluvial deposits. They are composed of varying amounts of limestone, sandstone, quartzite, igneous rock, flint and quartz with occasional silts and clays.
46. River terrace deposits are the principal source of 'sharp' sands and gravels, which dominates local supply. 'Soft' sands are also present but in smaller quantities. The county's sand and gravel are a source of aggregate used in mortars; concrete production and concrete product manufacturing, asphalt, pipe bedding, and as a fill.
47. Notable concentrations of sand and gravel can be found within Upper Thames Valley (UTV) and largely, but not exclusively, across the Cotswold Water Park (CWP). Other sand and gravel deposits are present throughout parts of the Severn Vale, and also the Vale of Moreton and in the Upper Windrush Valley. Deposits of economic significance at the present time are those found within the UTV and parts of the Severn Vale.
48. Gloucestershire's economic sand and gravel resources also spread beyond the county boundary. Those within the UTV straddle a significant proportion of the county's south-eastern border and extend into Wiltshire and Swindon, and also Oxfordshire. Comparable resources to those of the Severn Vale are found north of the county boundary within neighbouring Worcestershire.

Sandstone

49. Deposits of Devonian Brownstones and Carboniferous Pennant Sandstone, both of which occur within the Forest of Dean, have historically been used as a local building stone. Some resources are still being worked for this purpose but only in relatively small amounts. Carboniferous Pennant Sandstone has some limited potential as a low grade aggregate although its use for this purpose in Gloucestershire has been rare and on a small scale.
50. Other Gloucestershire sandstone deposits include the Permian Bridgnorth Sandstone and Triassic Bromsgrove Sandstone Formations are located in the north of the county near to Bromsberrow. These are largely recognised as building sands and have been used in pipe bedding. They are recorded locally as a source of local sand and gravel aggregate. Only limited working of this resource has taken place in recent decades.

Clay

51. There are extensive and fairly widespread deposits of clay found across a number of areas within Gloucestershire. Noteworthy resources of economic value include the Carboniferous Clays found in the Forest of Dean and the Jurassic Clays known as the Charmouth Mudstone Formation near to Blockley in the Cotswolds. These resources support small local supplies of brick clay.
52. Jurassic Blue Lias Clays found throughout parts of the Severn Vale have also been marketed over the recent past. Locally they have been used as a lining material for landfill sites, the construction of ponds and lakes and other engineering works such as canal restoration.

Coal

53. Three coalfields are found within Gloucestershire – Forest of Dean, Newent and parts of the Oxfordshire-Berkshire Coalfield (which lies on the eastern fringes of the county and is made up of comparatively thin coal seams that are wholly concealed). The only deposits of proven economic value are those found within the Forest of Dean. These form part of a wider resource known as the Carboniferous South Wales Coal Measures that includes coalfields located in South Wales, Bristol, Somerset and Kent. Coal from the Forest of Dean has been worked over many centuries and has been highly influential in the local area's evolving built and cultural heritage and past economic profile.
54. In recent decades, coal working in the Forest of Dean has become increasing low-key and intermittent. It is carried by a small number of independent operators known as

Freeminers who are allowed to work coal under ancient custom and law. All workings are at relatively shallow depth and usually through inclined drift mines.

55. More significant, industrial-scale working of coal ceased within the Forest of Dean over 30 years ago. This also exploited shallow coal resources, but mostly using surface-mining techniques, traditionally known as open-cast or open pit working. Deep mining has also featured in the past, but the last deep mines closed over 50 years ago, in the mid 1960s.

Oil and gas

56. Conventional oil and gas resources have previously been explored within Gloucestershire. A number of exploratory boreholes have been drilled. Investigations have also been made as to the potential for gas storage. Drilling activities took place between the early 1960s and early 1980s. Published records show that boreholes were largely concentrated in the east of the county within Cotswold District around Stow-on-the-Wold, Sherborne and Windrush. Two boreholes were also drilled in Tewkesbury Borough at Staverton and west of Coombe Hill. All wells proved to be either dry or contained only small amounts of gas of no commercial consequence. They have been plugged and abandoned²⁹.
57. Unconventional oil and gas resources may also be present within the county. However, geological evidence suggests the potential is low³⁰. The exploitation of coal bed methane (CBM) or abandoned mine methane (AMM) may be possible due to the presence of coal, although local records derived from worked areas within the Forest of Dean Coalfield, point to the absence of any meaningful gas accumulations.
58. Interested parties seeking to explore and exploit any potential oil and gas resources, must first obtain a Petroleum Exploration and Development licence (PEDL) from the UK Government. The Oil and gas Authority (OGA) administers this process³¹. Licences are usually made available periodically as blocks of land via competitive offerings and can take several years to conclude. The 14th Onshore Oil and Gas Licensing Round presented the most recent offerings. This process closed following the signing of agreements in September 2016. The OGA has made no decision to undertake a 15th Onshore Oil and Gas Licensing Round at this time, although this may change in the future.

²⁹ The Oil & Gas Authority (OGA) have created an online interactive map outlining current and historic onshore oil & gas licensing activities that includes Gloucestershire. This can be found at: -

<https://ogauthority.maps.arcgis.com/apps/webappviewer/index.html?id=29c31fa4b00248418e545d222e57ddaa>

³⁰ A review of hydrocarbon potential (including oil & gas) for Gloucestershire is contained within the jointly-published British Geological Survey (BGS) and Office of the Deputy Prime Minister (ODPM) report - Mineral Resource Information in Support of National, Regional and Local Planning:

Gloucestershire (including South Gloucestershire) (2006). This can be found at: - <http://www.bgs.ac.uk/downloads/start.cfm?id=2613>

³¹ The Oil & Gas Authority (OGA) is a government company (as of Oct 2016) which came into being in April 2015. Its key responsibility is to regulate the UK oil and gas industry. The sole shareholder of the OGA is the Secretary of State for Business, Energy and Industrial Strategy (BEIS).

59. The 14th Onshore Oil and Gas Licensing Round included bids for PEDL licences over 4 blocks of land within Gloucestershire. The blocks contained parts of the Forest of Dean near to the border with Monmouthshire and a smaller area around Sharpness Docks in Stroud³².
60. In December 2015, PEDL licences containing the 4 blocks within Gloucestershire were offered to a candidate licensee – South Western Energy Limited. However, none of the licences were pursued leaving the county with no active PEDL licences.
61. As previously mentioned, future onshore oil and gas licensing rounds could commence in the future including over the time horizon of the plan. Although it is uncertain if any blocks of land within the county would form part of an OGA / government offering and be subjected to bids by prospective licensees for exploration and exploitation licences.
62. National policy explains that when planning for onshore oil and gas development, potential constraints on production and processing will need to be addressed within areas that are licensed for oil and gas exploration or production³³. Further advice is provided in planning practice guidance, which sets out expectations regarding the setting of local policies over Petroleum Licence Areas³⁴.
63. As Gloucestershire contains no active or candidate licenced areas at this time or for the foreseeable future, there is no requirement to provide a local policy framework to cover proposals for oil and gas development. Nevertheless, decisions on future onshore licensing arrangements made by the OGA and / or national government will be monitored to assess whether they are likely to have an impact on the county. If any part of Gloucestershire is subject to new candidate licences, this could be a circumstance, which will need to be addressed by a partial review of the Minerals Local Plan for Gloucestershire, in addition to the mandated 5-year review requirement under local planning regulations³⁵. The preparation of a new local policy to cover proposals for oil and gas development may be the key outcome of the review.
64. In the event of a swiftly concluded new PEDL approval process followed by a planning application for oil and gas development, being submitted in advance of a completed local plan review that may introduce a dedicated local oil and gas policy, consideration must be given to the relevant policies of the Minerals Local Plan for Gloucestershire. These are likely to include: - Amenity (DM01); Transport (DM03); Water resources

³² The PEDL 14th Onshore Oil and Gas Licensing Round – Candidate Blocks Map (as of August 2015)

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/454338/Onshore14thHRAv5.pdf

³³ National Planning Policy Framework (NPPF) 2012, section 13, paragraph 147, bullet point 1.

³⁴ Planning Practice Guidance (PPG), mineral section, planning for hydrocarbons, paragraph: 106 Reference ID: 27-106-20140306.

³⁵ The Town and Country Planning (Local Planning) (England) (Amendment) Regulations 2017 include an amendment to regulation 10 of the Local Planning Regulations (2012). It introduces a 5-year review requirement (regulation 10A) for all local development documents (including development plan documents and SCIs) calculated from the date of their adoption.

(DM05); Biodiversity and geodiversity (DM06); Landscape (DM09); and Restoration, aftercare and facilitating after-uses (MR01). Other minerals local plan policies and those contained within the Gloucestershire Waste Core Strategy (WCS) may also be applicable depending on site and development-specific circumstances. Regard must be given to the development plan as a whole; therefore policies contained within relevant district local plans will in addition, require very careful scrutiny.

65. Key material considerations will include national policy currently contained within the NPPF 2012 and other relevant Government policy statements and ministerial statements, and advice set out within Planning Practice Guidance (PPG). Particular attention should also be afforded to national policy on energy and climate change that is in place at the time, and the published conclusions of the Committee on Climate Change (CCC), which is required under the provision of Infrastructure Act (2015) to advise Government on impacts relating to the exploitation of onshore petroleum³⁶.

³⁶ In March 2016 the Committee on Climate Change published – Onshore Petroleum | The compatibility of UK onshore petroleum with meeting the UK's carbon budgets. The report represents the CCC's first submission to government in line with the Infrastructure Act: - <https://www.theccc.org.uk/publication/onshore-petroleum-the-compatibility-of-uk-onshore-petroleum-with-meeting-carbon-budgets/>. In July 2016, the Department for Business, Energy & Industrial Strategy (BEIS) released the Government's response to the CCC report - https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/535208/CCC_Response_new_template_FINAL.pdf



03

DRIVERS FOR CHANGE

Section 3 | Drivers for change

66. Having outlined what has and is already happening across Gloucestershire, it is important to look to the future. This will help to identify possible opportunities to improve the county and establish the means to tackle unresolved or emerging challenges.
67. Before setting out a vision for the county's mineral resources it is necessary to establish an appreciation of the factors likely to influence or lead to change in the way we manage them. These influencing factors are described in the plan as '*drivers for change*' and have been set out below.
68. The drivers originate out of the key facts established through the spatial portrait and how these might evolve or influence national and sub-national ambitions. However, the drivers have also been shaped to reflect the concerns, expectations and priorities expressed during the plan's consultation by local communities, other interest groups, national regulatory bodies, local businesses and landowners, and the minerals industry.

Driver A | Tackling climate change

69. Action on climate change is a global challenge that many national governments are committed to³⁷. Tackling and responding to climate change is enshrined in UK law and targets have been set alongside a wide ranging policy framework³⁸. The planning system has an important role to play in delivering action on climate change alongside maintaining steady and adequate mineral supplies. This may arise through efforts to minimise greenhouse gas emissions particularly from transporting minerals; supporting the delivery of infrastructure to increase resilience to climate change impacts and integrating features that will help in successfully adapting local environments to forecast climate-related changes envisaged over the coming decades.

³⁷ The Paris Agreement is an international agreement between countries to tackle climate change through greenhouse gas emissions mitigation, adaptation and finance starting in 2020. It builds upon and seeks to strengthen previously agreed international commitments to responding to the threat of climate change. Full details concerning the Paris Agreement can be obtained at: - http://unfccc.int/paris_agreement/items/9485.php.

³⁸ The Climate Change Act 2008 is the basis for the UK's approach to tackling and responding to climate change. It requires that emissions of carbon dioxide and other greenhouse gases are reduced and that climate change risks are prepared for. The Act includes a target to significantly reduce UK greenhouse gas emissions by 2050. It also establishes the framework to deliver on these requirements. The Climate Change Act 2008 can be obtained at: - <http://www.legislation.gov.uk/ukpga/2008/27/contents>.

Driver B | Protecting and enhancing the natural environment

70. The natural environment of Gloucestershire is of a high quality and yields many prized assets and resources that make up the county's green infrastructure. It deserves strong protection. Many areas form part of important environmental designations and / or contribute to the county's multi-functional green infrastructure network. These areas and their interconnecting network contain, are nearby to, or could be influenced by mineral developments. In ensuring steady and adequate supplies of local minerals for the future, account must be given to those parts of the natural environment that could be at risk of harm and wherever possible this should be avoided. Furthermore, where environmental enhancements are a potential benefit, these should be maximised.

Driver C | Safeguarding and promoting the health and well being of local communities

71. The health and well being of Gloucestershire's communities is generally good compared to many other parts of the country, although some inequalities exist. It is important that existing standards are protected particularly where risks to health could arise from mineral working and related activities. Mineral developments can however also offer opportunities to help improve matters through supporting new or expanded health infrastructure and facilitating improvements to the connectivity and environmental integrity of the county's multi-functional green infrastructure network that will enable increased access to leisure and recreational facilities and encourage healthier lifestyles.

Driver D | Protecting and maintaining historic environments

72. Gloucestershire contains a wealth of irreplaceable historic assets of cultural significance that are an important local tourism resource and a contributor to the county's economic diversity and vibrancy in general. It is important that these assets are recorded and afforded protection. However, minerals are also needed to support the historic environment due to ongoing maintenance requirements that demand a diverse supply of specialist natural building stones.

Driver E | Developing secondary & recycled aggregate supplies

73. Emerging local growth including urban regeneration and renewal of the county's towns and city will generate construction, demolition and excavation wastes. This could be turned into a valuable source of recycled aggregate. However, the right business environment must be nurtured to ensure there is sufficient capacity to make best use of the resource in a sustainable way. Reducing our reliance on primary aggregates in this manner supports clean growth – a core ambition of the UK's Industrial Strategy³⁹,
74. New permitted infrastructure may generate a local secondary aggregate resource currently missing from within Gloucestershire. This may also help in reducing our reliance on primary aggregates.

Driver F | Safeguarding mineral resources

75. Competing interests for the use of land driven by demand for new housing and commercial opportunities, means Gloucestershire's finite mineral resources and supporting infrastructure are at risk from sterilisation or operational constraint. A balance must be found to effectively safeguard resources and infrastructure for the future and to avoid unnecessarily stifling of other development types that meet today's needs.

Driver G | Supporting local growth

76. Gloucestershire's finite mineral resources are in demand throughout the local economy and further afield to support new housing, commercial opportunities and to deliver much needed new and enhanced infrastructure. The management of steady and adequate mineral supplies is required to help keep the local economy competitive and aid growth, but also to ensure resources are applied efficiently and to maximum benefit, so they will be available for future generations.

³⁹ The UK's Industrial Strategy was published in 2017. It currently amounts to a policy paper that sets out how the UK Government aims to help businesses create better, higher-paying jobs with investment in the skills, industries and infrastructure of the future. It is founded on boosting productivity and earning power across the country. The full strategy can be obtained at:- <https://www.gov.uk/government/publications/industrial-strategy-building-a-britain-fit-for-the-future>.

Driver H | Maintaining steady and adequate supplies of aggregates

77. Aggregates sourced from within Gloucestershire largely support a local market, although do also contribute to demand further afield. However, existing permitted reserves are limited, which present a challenge to maintaining steady and adequate supplies into the future. As of 31st December 2016⁴⁰ and accounting for projected levels of demand in the future, remaining local supplies of crushed rock are only available for the next 16.75 years. For sand and gravel local supplies are deemed sufficient for a further 5.94 years.

Driver I | Reducing the impact of mineral transport

78. Minerals are mostly moved by road throughout Gloucestershire, which puts a strain on an already pressured highway network. Poorly managed operations can have adverse impacts that should be prevented. Whilst alternative transport options are not well developed, lack capacity and / or are poorly located to link resources with markets, opportunities still exist to deliver positive change. These may involve encouraging greater freight efficiency, reducing vehicle numbers and miles travelled and promoting the most appropriate highway routes available.

⁴⁰ Based on the 6th Local Aggregates Assessment for Gloucestershire (LAA), which was published in November 2017
<http://www.gloucestershire.gov.uk/planning-and-environment/planning-policy/local-aggregates-assessment-laa/>