



Gloucestershire
COUNTY COUNCIL

**Draft
Minerals
Local Plan for
Gloucestershire**

2018 – 2032

For public consultation

September 2016

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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, and ensure our safety. Minerals are also integral to our economic well being as they support energy generation, manufacturing, healthcare production and agriculture.
2. Minerals are a finite resource that can only be worked where they are found. It is vital therefore we only use what is needed and that maximum benefit is achieved. This should secure their longer-term availability for future generations.
3. An adequate and steady supply of minerals is of national importance and critical to the nation's growth and prosperity. It is also central to Gloucestershire economic ambitions for:
 - enabling housing delivery;
 - facilitating employment and commercial development;
 - supporting manufacturing;
 - aiding the maintenance and improvement of public infrastructure; and
 - safeguarding the built and natural environment.

Minerals planning in Gloucestershire

4. 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 development.
5. 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 mineral and help guide decisions on planning applications for mineral developments. Until replaced, many of the local policies contained within the MLP remain in force.

Responding to change

6. Since the adoption of the MLP over a decade ago, many changes have taken place. The demand for and the supply pattern of local minerals has evolved and the level of permitted reserves has depleted. This means new mineral resources need to be investigated to see how best they might contribute to future demands. Furthermore, national planning policies and guidance for minerals has undergone significant reform. Consolidated national policy and guidance has been introduced through the National Planning Policy Framework (NPPF) (2012) and Planning Practice Guidance (PPG) (2014). New concepts and approaches have come into being such as the preparation of Local Aggregate Assessments (LAAs).

A new plan for the future

7. This plan when adopted will replace and update all aspects of the 2003 MLP. It has been prepared in a positive manner, focused on the achievement of sustainable development. At its core is the delivery of economic growth; effective safeguarding of Gloucestershire's local communities and those nearby potentially affected by mineral developments; and the protection and enhancement of natural and built resources and valued assets.
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 2032¹. It also establishes the steps needed to deliver the plan's ambitions and outlines measures to assess progression and effectiveness along the way.
9. Robust and extensive evidence gathering and analysis has been central to the plan's preparation, as has 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 site allocations have been assessed on several occasions. Since autumn 2006, three major consultation events have taken place². These have allowed public

¹ National Planning Policy Framework (NPPF) 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 achieving adoption during 2018. As a result 15 years from this time generates a time period of between 2018 and 2032 inclusive.

² An Issues & Options consultation report into a new Minerals Core Strategy (MCS) was published for public consultation 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 the last major consultation event.

scrutiny of early issues and options for the plan, preferred options put forward by the MPA and a review of candidate site options along with a draft policy framework.

10. The plan has also sought to be strategic by taking into account mineral planning issues that extend beyond the boundary of Gloucestershire. 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 districts 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 – Gloucestershire's Local Enterprise Partnership and views of Gloucestershire Local Nature Partnership 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 a European level have been properly scrutinised and that sufficient provision will be put in place to ensure their continued protection.

Legal status and use of the plan

12. The plan has been prepared to comply with the legal requirements of the Planning & Compulsory Purchase Act 2004, Planning Act 2008 and Localism Act 2011. Its production has also 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), which was adopted in 2012 and the remaining saved adopted policies contained within the Gloucestershire Waste Local Plan 2002 – 2012 needs to be considered. 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, which are presently worked and / or may well be in the foreseeable future include: - clay; coal; limestone; sand & gravel; and sandstone. These minerals are mostly found at 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 incorporating oil and gas also exists within Gloucestershire. From late 2015, four licenced areas have been offered by Government within the county. These give licensees exclusive rights to investigate whether local deposits are going to be economically viable and undertake any future allowable working. All proposals for oil and gas will still be subject to a series of permitting regimes including the requirement for planning permission. At the time of preparing the plan no hydrocarbon proposals including for initial exploration, have been brought forward within Gloucestershire.

How to use the plan

16. To make the plan user-friendly and simple to navigate, it has been divided into a number of sections that are explained below: -
 - 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.

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 northernmost 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 eight neighbouring local authorities – Monmouthshire, Herefordshire, Worcestershire, Warwickshire, Oxfordshire, South Gloucestershire, Swindon, and Wiltshire.

Key geographic features

20. Gloucestershire has a strong rural character and is known for its environmental quality, biodiversity and scenic beauty. The west of the county is dominated by the upland area of the Forest of Dean, made up of semi-natural and ancient woodland. To the east are the Cotswolds hills, which 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 becomes part of a tidal estuary. The meadow lands of Upper Thames Valley (UTV) lie in the far south-east of the county; a hydrologically complex locality 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 & Crime Commissioner, Gloucestershire Clinical Commissioning Group and Local Economic Partnership – GFirst LEP.

Population

22. At mid-2014 Gloucestershire's population stood at just over 611,000³ a rise of close to 50,000 people since the 2001 census⁴. The proportion of older people aged 64 years in the county is higher than the national average and this age group is also projected to grow over the next ten years⁵.
23. Notable population growth is also predicted over the coming years, particularly in and around the county's main built-up areas. By 2032 this could result in an additional 80,000 residents⁶. 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 and its two main built-up areas of Cheltenham and Gloucester City, and the settlements that make up the Stroud Valleys towns⁷. These locations also provide the key administrative, commercial and employment centres for the county.
25. Other notable local settlements include: - Tewkesbury and Bishops 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 England⁸.

Economy

26. The economy of Gloucestershire is supported by nearly 30,000 businesses and employs in the region of 290,000 people⁹. It is vibrant and diverse with strong numbers of business start-ups and competitive business survival rates¹⁰. Economic output from Gloucestershire was close to £15billion a year by the end of 2014¹¹. Key local sectors include; manufacturing – strongly linked to

³Source: ONS (2014) annual mid-year population estimates published in June 2015: -<http://www.ons.gov.uk/ons/rel/pop-estimate/population-estimates-for-uk--england-and-wales--scotland-and-northern-ireland/mid-2014/stb---mid-2014-uk-population-estimates.html>

⁴Source: The 2001 Census recorded the population of Gloucestershire as 565,000.

⁵The proportion of people aged over 64yrs as per the 2011 Census was 20.3%. The equivalent for the UK as a whole was 17.7%

⁶Source: ONS (2016) 2014 based sub-national population projections by Local Authorities in England: -<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/datasets/localauthoritiesinenglandtable2>

⁷The Stroud Valleys towns are made up of the individual settlements of Chalford, Minchinhampton, Nailsworth, Stonehouse, Stroud, and Woodchester

⁸As 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.

⁹Source: Strategic Economic Plan for Gloucestershire (2014): - <http://www.gfirstlep.com/gfirst-LEP/Our-Priorities/Our-Vision/>

¹⁰The Gloucestershire LEP area is ranked 2nd in the country for having the highest survival rate for new businesses.

¹¹Source: ONS (2016) GVA for LEPs: 1997 and 2014 and NOMIS Labour Market Profile – Gloucestershire (2014)

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

27. The rural economy is diverse and no longer dominated by traditional primary industries. Agriculture in Gloucestershire is now under-represented in respect of jobs, compared to the UK average¹². However, in sharp contrast the leisure and tourism industry has grown and is economically significant in many rural and also urban parts of the county. It employs upwards of 25,000 individuals and has an annual turnover of £1billion¹³.

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 M50¹⁴. Just over 40 miles of the A40 major trunk road also runs east-to-west across the county. Main highway routes are generally focused on more strategic connections that run beyond the county, but also link a number of the county's main settlements. A sizeable network of local rural roads also exists. Gloucestershire's highway network covers a distance of over 3,300 miles.
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 year¹⁵. A very limited rural rail network is present tied to main inter-regional routes. There are no active commercial freight depots or terminals 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, minerals and timber. The docks provide

<http://www.ons.gov.uk/economy/grossvalueaddedgva/articles/gvaforlocalenterprisepartnerships/1997to2014> and <https://www.nomisweb.co.uk/reports/lmp/la/1941962903/report.aspx#tabrespop>

¹² Source: ONS (2015) Business Register and Employment Survey (BRES) provisional results for 2014 <http://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/businessregisterandemploymentsurveybresprovisionalresults/2015-09-24>

¹³ Source: The Economic Impact of Gloucestershire's Visitor Economy (2014) commissioned by Cotswold District Council http://www.gfirstlep.com/doc_get.aspx?DocID=346

¹⁴ Source: Department for Transport Traffic Count data for Gloucestershire 2000 – 2014 <http://www.dft.gov.uk/traffic-counts/area.php?region=&la=Gloucestershire>

¹⁵ Source: Gloucestershire Local Transport Plan (LTP) 2015-2031 Policy Document PD5: Rail <http://www.gloucestershire.gov.uk/ltp3>

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 passenger airport that handles mostly private and business flights. Another privately owned aerodrome known as Cotswold airport is also located near to Cirencester at Kemble. RAF Fairford situated within the Upper Thames Valley is a strategic operational Royal Air force station that has also supported the US Air force at various points in its history.

Main designations and natural assets

32. Over half of Gloucestershire falls within one of three Areas of Outstanding Natural Beauty (AONBs) – the Cotswolds in the east, Wye Valley in the west and Malvern Hills along a small part of the county's northern border. There are a number of designated European Sites including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), two of which also have RAMSAR status. Countywide there are over 100 Sites of Special Scientific Interest (SSSIs) and around 850 local Key Wildlife Sites (KWSs).
33. The area between Cheltenham and Gloucester, covering just less than 7,000 hectares is designated as Green Belt – the second smallest in England.
34. Gloucestershire is geological diverse and contains outcrops from throughout most of earth's history. There are around 200 Regionally Important Geological & Geomorphological Sites (RIGS), a number of which also have SSSI status. Two nationally recognised Geo-parks are also present – the Cotswolds Hills and the Abberley & Malvern Hills¹⁶.

Historic assets

35. The county has a wealth of historic assets including over 500 scheduled monuments, nearly 15,000 listed buildings 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 Stroud Valleys exemplify the county's rich built historic assets. Gloucestershire is also regarded for its Pre-historic and Roman archaeology that survive as visible monuments and below ground deposits.

¹⁶ Information about the Cotswold Hills Geo-park can be found at: - <http://www.cotswoldhillsgeopark.net/index.html>. For the Abberley and Malvern Hills Geo-park this can be viewed at: <http://geopark.org.uk/pub/>.

Plans for growth

36. The Gloucestershire Strategic Economic Plan (SEP) sets out how the county will develop its economy through to the early 2020's. However, it also lays down the foundations for longer-term growth over the coming decade. Its aim is to stimulate key business sectors, open up new and expanded employment opportunity 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 Gloucestershire¹⁷. Supported measures contained within the SEP, target the delivery of at least 5,000 new jobs and over 1,000 new apprentices by 2021¹⁸.
37. A number of planned transport infrastructure projects align with the SEP's ambitions. These include the maintenance and improvement of stretches of the M5 and A40 and upgrades to the public transport infrastructure within the main built-up areas – concentrated on Gloucester City¹⁹.
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 2030's an additional 20,000 + new homes will have been built along with commercial developments capable of supporting upwards of 25,000 new jobs²⁰. Further housing and employment growth is envisaged elsewhere throughout the county, mostly as additions to existing local settlements. Overall, planned growth outside of the Gloucestershire's main urban areas could generate a further 30,000 homes²¹.

¹⁷ Summary of page 14 of the Gloucestershire Strategic Economic Plan (SEP) 2015-2022 – What will be better as a result of this Plan?

¹⁸ Source: Summary of the Gloucestershire Growth Deal (2015) http://www.gfirstlep.com/doc_get.aspx?DocID=269

¹⁹ Key LEP-funded transport infrastructure projects and local delivery priorities are set out through the Gloucestershire Local Transport Board (GLTB) <http://www.gltb.org.uk/article/113218/Home-Page>

²⁰ Source: Gloucester-Cheltenham-Tewkesbury Joint Core Strategy (GCT-JCS) Submission Version (November 2014) <http://www.gct-jcs.org/Documents/Publications/Submission/JCS-Submission-Version-November-2014a-corrected.pdf>

²¹ 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 emerging Gloucester-Cheltenham-Tewkesbury Joint Core Strategy outside of Gloucester and Cheltenham and the surrounding areas identified as urban extensions.

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 & gravel;
- Sandstone;
- Clay;
- Coal; and
- Oil & gas

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 makes 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 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 limestones are 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 resources of economic importance are located in North Somerset and Somerset.

Sand & gravel

45. Gloucestershire's sand & 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 & 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 & gravel can be found within Upper Thames Valley (UTV) and largely, but not exclusively, across the Cotswold Water Park (CWP). Other sand & gravel deposits are present throughout parts of the Severn Vale, and also the Vale of Moreton and in the Upper Windrush Valley. Deposits of the most economic significance are those found within the UTV and parts of the Severn Vale.
48. Gloucestershire's economic sand & 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 uses for these purposes in Gloucestershire in recent times have been rare and small scale.
50. Other Gloucestershire sandstone deposits include the Permian Bridgnorth sandstone and Triassic Bromsgrove sandstone formations located in the north of the county near to Bromsberrow. These are largely recognised as building sand and have been used in pipe bedding. They are recorded locally as a source of local sand & 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 more recently. Locally they have been used as a lining material for landfill sites, the construction of ponds and lakes and other engineering works.

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. 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 economic profile.
54. In recent decades, coal working in the Forest of Dean has become increasingly 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 nearly 50 years ago, in the mid 1960's.

Oil & gas

56. Conventional oil & gas is unlikely to be present within Gloucestershire. Potential source rocks identified within the east of the county are deemed to be neither thick enough or been buried at sufficient depth for any meaningful accumulations of hydrocarbons to occur.
57. The existence of previously worked coal measures in the Forest of Dean means there may be some potential for unconventional oil & gas such as Coal Bed Methane (CBM) or Abandon Mine Methane (AMM). Furthermore, published information on other possible source and / or reservoir rocks in Gloucestershire, which maybe exploitable through unconventional techniques is presently very limited. The likelihood of any economic viable resources is currently speculative.

Section 3 | Drivers for change

58. Having outlined what is presently 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 existing and emerging challenges.
59. In advance of setting out a vision for the county linked to minerals it is useful to explore the main factors that are likely to influence or lead change. These influencing factors are described within the plan as 'drivers for change' and have been set out below.
60. The drivers originate from the key facts established within the spatial portrait. However, they have also been shaped to take account of the expectations and aspirations of local communities and interest groups, national regulatory bodies, local businesses and landowners, and the minerals industry.

Driver A – Developing secondary & recycled aggregate supplies

61. The focus for planned growth in and around the county includes urban regeneration and renewal. Combined with pressure to meet increasingly stringent sustainable construction practices, this presents opportunities to encourage growth in local recycled aggregate supplies. New permitted infrastructure will present opportunities to develop local secondary aggregate – currently not available from within Gloucestershire. Both options offer a potential viable alternative to the working of local land-won primary aggregates.

Driver B – Safeguarding local mineral resources

62. Ever changing and competing interests for land throughout Gloucestershire, including the delivery of local growth, means the county's finite mineral resources and supporting infrastructure may be at increased risk from sterilisation or constraint. A balance needs to be struck between safeguarding resources and infrastructure that will support growth, and not unnecessarily stifling other forms of development.

Driver C – Supporting local growth ambitions

63. Local mineral resources, particularly construction aggregates will be needed to support ambitious plans for growth throughout Gloucestershire over the next 10 – 15 years. This includes significant levels of development, mostly involving the main urban areas of Gloucester and Cheltenham surrounding parts of the Severn Vale; and the delivery of transport infrastructure maintenance and improvements. This will undoubtedly influence local demand for minerals over the coming years, particularly if ‘actual’ delivery matches the ambitions currently being expressed.

Driver D – Maintaining steady and adequate supplies of aggregates

64. There are limited permitted reserves of local aggregates available in the county. As of 31/12/2014²² and accounting for projected levels of demand in the future, remaining local supplies of crushed rock are available for the next 17.13 years. For sand & gravel remaining local supplies equate to just 6.9 years.

Driver E – Reducing the impact of mineral transport

65. Minerals are mostly moved by road throughout Gloucestershire, which can put a strain on an already pressured highway networks. This can be harmful to local communities and environments and detrimental to action on climate change. However, alternative transport options such as rail and waterways are insufficiently developed, lack capacity and / or not well located to link mineral resources with markets. Nevertheless, measures are available to support greater efficiency and appropriate use of highway routes, avoid adverse impacts from occurring and to help deliver efficient, effective and safe highway networks throughout the county.

Driver F – Protecting the natural environment

66. Gloucestershire includes important environmental designations, many of which contain, or are nearby mineral resources that are important to local supplies. A balance is needed to ensure that the natural environment is protected and that appropriate provision is made for local minerals to help meet future demand.

²² Based on the 4th Local Aggregates Assessment for Gloucestershire (LAA), which was published in July 2016
<http://www.gloucestershire.gov.uk/extra/article/115911/Local-Aggregates-Assessment>

Driver G – Protecting and maintaining historic environments

67. Gloucestershire contains a wealth of irreplaceable historic assets of cultural significance that are also majorly important to local tourism and the county's economy in general. These need to be recorded and protected wherever possible. However, there is also a need for minerals, particularly a diverse supply of specialist local natural building stone, which are vital to maintaining the quality and quantity of the county's historic environments and its local distinctiveness.

Section 4 | Vision and objectives

Vision

68. The vision provides a *view into the future* – at the start of 2033. It broadly describes what the results of a successfully delivered plan will look like. Its purpose is to help illustrate how responding to the drivers for change will positively effect the local environment, the economy and the fortunes of Gloucestershire's local communities.
69. The vision is 'collective' in that it has taken account a wide range of views sought from across the county. These include from individuals, local communities, interest groups, regulatory bodies, businesses, landowners and the minerals industry.

A Vision for Gloucestershire – 2033

At the start of 2033, Gloucestershire will be a cleaner, greener, more healthy and safer place in which to live, work and visit. It will be a leading county in managing its mineral resources and a successful contributor towards the achievement of sustainable development.

Local mineral resources will have played a key part in delivering renewal, regeneration and economic growth throughout the county. Specialist minerals will have been important in revitalising and restoring Gloucestershire's historic built environments; and supporting the delivery of key items of infrastructure, housing and increased employment opportunities.

The working of primary minerals will have remained an essential part of the county's mineral supply, particularly in meeting local demands, but also in contributing to national need. Nevertheless, wherever possible, positive and tangible steps will have been made to reduce reliance on primary minerals by: - facilitating their optimum, efficient and most appropriate use; promoting the re-use of building and other construction materials; assisting the increased and diversified use of recycled construction & demolition wastes and alternative secondary aggregate, particularly from local sources.

Although road haulage will have been the dominant form of moving minerals in, out and around Gloucestershire, smarter and more respectful supply routes will have been applied. Impacts upon local and strategic roads will have been minimised by providing opportunities to reduce the frequency and length of haulage journeys.

Where mineral development has taken place, minimising the adverse impacts on: – amenity; risks to health, well-being and quality of life; the economic vitality of other local businesses; the integrity and quality of the natural and historic environment; aviation safety caused by the risk of bird strike; and the risk of flooding, will have been highly influential in the decision making process.

Furthermore, beneficial after-use opportunities resulting from the timely and effective restoration of minerals sites will have been maximised, to: - achieve enhancements in beneficial biodiversity; access to geological conservation interests; access to the countryside; the level and diversity of participation in leisure & recreational activities; the management of the water environment and reduced risks to water quality.

Objectives

70. The plan's vision is to be underpinned by a number of objectives, which seek to explain through targeted actions, how the vision will be achieved.
71. Demonstrating how a meaningful contribution will be made towards the achievement of sustainable development - a primary focus of the national planning system, has strongly influenced the preparation of the plan's objectives. As have the plan's drivers for change, which identify possible opportunities and emerging challenges in a local context.
72. To show how important themes flow through into the plan's objectives, the relevant dimensions of sustainable development (Environmental, Social and Economic) and their respective roles in guiding national policy and influencing decisions on planning proposals have been cross-referenced with each of the objectives²³. Relevant, influencing 'drivers for change' have also attributed to each objective: -

²³ National Planning Policy Framework (NPPF) Achieving sustainable development, paragraph 7

Objective SR | Maximising the use of secondary and recycled aggregates

PLAN OBJECTIVE –

To promote the maximum use of recycled materials and secondary aggregates in preference to primary-land won minerals having regard to the viability and sustainability of transporting, handling and processing of such materials, including the avoidance of adverse impacts on local communities, the environment, and the ability to successfully achieve the restoration of mineral sites

ROLE IN DELIVERING SUSTAINABLE DEVELOPMENT –

Economic role – ...contributing to building a strong, responsive and competitive economy, ...ensuring sufficient land is available of the right type to support growth and innovation;

Environmental role – ...minimising waste and pollution, ...using natural resources prudently, ...contributing to protecting our natural, built and historic environment.

INFLUENCING 'DRIVERS FOR CHANGE' –

Driver A – Developing secondary & recycled aggregate supplies;
Driver C – Supporting local growth ambitions
Driver D – Maintaining steady and adequate supplies of aggregates

Objective RM | Effectively managing mineral resources

PLAN OBJECTIVE –

To manage the county's remaining mineral resources in a co-ordinated and efficient manner by ensuring other development does not unnecessarily sterilise mineral resources or adversely affect the operation of mineral infrastructure; and that where minerals are worked, they are put to their optimal use and that any waste generated is kept to a minimum.

ROLE IN DELIVERING SUSTAINABLE DEVELOPMENT –

Economic role – ...contributing to building a strong, responsive and competitive economy, ...ensuring sufficient land is available of the right type to support growth and innovation;

Environmental role – ...minimising waste and pollution, ...using natural resources prudently, ...contributing to protecting our natural, built and historic environment.

INFLUENCING 'DRIVERS FOR CHANGE' –

Driver A – Developing secondary & recycled aggregate supplies;
Driver B – Safeguarding local mineral resources
Driver C – Supporting local growth ambitions
Driver D – Maintaining steady and adequate supplies of aggregates

Objective PS | Making provision for the supply of minerals

PLAN OBJECTIVE –

To ensure that a sufficient supply of minerals is provided that contributes towards meeting local and national requirements having taken account of local environmental capacity, the availability of viable, workable or alternative resources, accessibility to necessary supporting infrastructure, and market conditions.

ROLE IN DELIVERING SUSTAINABLE DEVELOPMENT –

Economic role – ...contributing to building a strong, responsive and competitive economy, ...ensuring sufficient land is available of the right type to support growth and innovation;

Environmental role – ...minimising waste and pollution, ...using natural resources prudently, ...contributing to protecting our natural, built and historic environment.

INFLUENCING 'DRIVERS FOR CHANGE' –

Driver A – Developing secondary & recycled aggregate supplies;
 Driver C – Supporting local growth ambitions
 Driver D – Maintaining steady and adequate supplies of aggregates
 Driver F – Protecting the natural environment
 Driver G – Protecting and maintaining historic environments

Objective ENV | Protecting the built and natural environment

PLAN OBJECTIVE –

To protect, and where opportunity exists, enhance, the quality of landscapes, habitats, heritage and other environmental assets, having full regard to their international, national or local importance and value.

ROLE IN DELIVERING SUSTAINABLE DEVELOPMENT –

Economic role – ...contributing to building a strong, responsive and competitive economy, ...ensuring sufficient land is available of the right type to support growth and innovation;

Environmental role – ...minimising waste and pollution, ...using natural resources prudently, ...contributing to protecting our natural, built and historic environment.

Social role – ...supporting healthy communities.

INFLUENCING 'DRIVERS FOR CHANGE' –

Driver E – Reducing the impact of mineral transport
 Driver F – Protecting the natural environment
 Driver G – Protecting and maintaining historic environments

Objective LC | Protecting the health and well-being of local communities

PLAN OBJECTIVE –

To avoid adverse impacts on local communities and businesses wherever it is practicable to do so and in all other circumstances, ensure that effective, sound and enforceable measures are put in place to successfully mitigate unacceptable adverse impacts.

ROLE IN DELIVERING SUSTAINABLE DEVELOPMENT –

Economic role – ...contributing to building a strong, responsive and competitive economy, ...ensuring sufficient land is available of the right type to support growth and innovation;

Environmental role – ...minimising waste and pollution, ...using natural resources prudently, ...contributing to protecting our natural, built and historic environment.

Social role – ...supporting healthy communities.

INFLUENCING ‘DRIVERS FOR CHANGE’ –

Driver C – Supporting local growth ambitions
Driver E – Reducing the impact of mineral transport
Driver F – Protecting the natural environment
Driver G – Protecting and maintaining historic environments

Objective RA | Successfully restoring worked-out mineral sites

PLAN OBJECTIVE –

To secure the highest possible quality of mineral reclamation attainable at the earliest practicable opportunity, which will have enabled a successful balance of benefits to be achieved, including in respect of – protecting and enhancing landscape character, biodiversity, geo-diversity, agricultural resources, public access and recreation, and heritage assets; contributing to local economic growth; maintaining or improving resilience to flooding; and avoiding increased risk to aviation safety, particularly caused by bird hazard.

ROLE IN DELIVERING SUSTAINABLE DEVELOPMENT –

Economic role – ...contributing to building a strong, responsive and competitive economy, ...ensuring sufficient land is available of the right type to support growth and innovation;

Environmental role – ...minimising waste and pollution, ...using natural resources prudently, ...contributing to protecting our natural, built and historic environment.

Social role – ...supporting healthy communities.

INFLUENCING ‘DRIVERS FOR CHANGE’ –

Driver F – Protecting the natural environment
Driver G – Protecting and maintaining historic environments

Objective MM | Efficient, effective and safe movement of minerals

PLAN OBJECTIVE –

To support the efficiency, effective and safe operation of the county's road networks by – encouraging the least amount of road haulage of minerals possible; use of the most suitable routes wherever it is practicably to do so; avoiding adverse impacts on the county's road networks where achievable; and in all other circumstances, ensuring that effective, sound and enforceable measures are put in place to successfully mitigate unacceptable adverse impacts.

INFLUENCING 'DRIVERS FOR CHANGE' –

Driver C – Supporting local growth ambitions
 Driver D – Maintaining steady and adequate supplies of aggregates
 Driver E – Reducing the impact of mineral transport
 Driver F – Protecting the natural environment
 Driver G – Protecting and maintaining historic environments

ROLE IN DELIVERING SUSTAINABLE DEVELOPMENT –

Economic role – ...contributing to building a strong, responsive and competitive economy, ...ensuring sufficient land is available of the right type to support growth and innovation;

Environmental role – ...minimising waste and pollution, ...using natural resources prudently, ...contributing to protecting our natural, built and historic environment.

Social role – ...supporting healthy communities.

Section 5 | Strategy

78. The strategy set out the approaches taken with the plan to facilitate the delivery of its objectives. It offers the broad direction of policy content of the plan and how this will guide future minerals development in Gloucestershire. Broad locations for future minerals development are located on the plan's Key Diagram in Appendix 1.
79. A fundamental element of minerals planning is that development involving working can only happen where resources are found. Primary minerals are also a finite resource and once worked or sterilised are no longer available. Furthermore, physical and practical circumstances and wider national preferences exist that further inhibit where mineral developments can take place in a given area and / or in a particular way. These matters, amongst others are reflected in the plan's strategy as drawn from the evidence base used in its preparation and the advice and guidance offered by consultees.

The Strategy of the Minerals Local Plan for Gloucestershire 2018 - 2032

Secondary & recycled aggregate supplies (see section 6)

Support local decision makers in considering the planning merits of increasing the use of recycled and secondary aggregates as an alternative to primary land-won aggregates.

Mineral safeguarding (see section 7)

Avoid the unnecessary sterilisation of minerals resources by :-

- **Defining Mineral Safeguarding Areas (MSAs) for economically important minerals and Mineral Consultation Areas (MCAs) around permitted and future planned mineral sites;**
- **Setting out a proportionate approach to the protection of mineral resources and supporting infrastructure, without unreasonably burdening and / or overly restricting non-minerals development;**
- **Supporting local decision makers in determining whether mineral resources or mineral infrastructure represents a justified constraint on non-minerals development, or that satisfactory measures can be put in place to avoid**

affecting minerals, or that provision for prior-working can be made before non-minerals development takes place.

The future supply of minerals (see section 8) and Areas for future aggregate working (see section 9)

Make provision for the steady and adequate supply of key local minerals (clay, brick clay and aggregates) throughout the plan period and beyond where necessary, which will contribute towards meeting identified needs as advised appropriately through the monitoring of relevant landbanks of permitted reserves;

Provide for the future working of aggregates from within allocated areas located in the Forest of Dean, Cotswold and Severn Vale resource areas. Aggregate working outside of allocated areas will only be allowed when demonstrating particular circumstances;

Make provision for the supply of local natural building stone, which will meaningfully contribute towards maintaining the historic built environment and promoting local distinctiveness in new build design;

Prevent the future working of coal unless the environment will be appropriately safeguarded and protected from harm, or that sufficient benefits can be demonstrated to outweigh any impacts. Benefits include support for the cultural heritage and economic wellbeing of local communities within the Forest of Dean that are linked to coal working;

Allow for the exploration and potential production of oil & gas including through unconventional techniques within licensed areas subject to impacts on the environment and local communities being minimised as a result of recognising and adapting to constraints and through the proportionate use of restrictions.

Development Management (see section 10)

Ensure that the natural (including water) and historic environment, health, well-being and quality of life of local communities, the efficient, effective and safe functions of the highway network, and the economic viability of local businesses, will not suffer unacceptable adverse impacts caused by minerals development, through: -

- Demanding that all proposals set out detailed and robustly evidenced appraisals of potential adverse impacts and a clear demonstration of how these may be avoided or that effective mitigation measures will be employed;**
- Making provision for proportionate use of local site stand-off zones between sensitive nearby receptors and mineral working; and**

- Giving prominence to the potential of cumulative impacts occurring through either multiple impacts from a single mineral development or a number of mineral developments clustered within one of Gloucestershire's mineral resource areas or another equivalent resource area within an neighbouring local authority area.

Seek to avoid, wherever possible, future working of aggregate minerals from within the Cotswolds or the Wye Valley AONBs or where the setting of these designations might be affected. In doing so ensure that an appropriate balance is achieved that is reflective of reasonableness of these areas to contribute to key mineral supplies and will give great importance to protecting from harm, the landscape quality, scenic beauty, cultural heritage and wildlife conservation of these areas.

Mineral Restoration (see section 11)

Make certain that the 'temporary nature' of minerals development is upheld and that opportunities to achieve beneficial after uses are fully realised by: -

- Requesting appropriately detailed reclamation site plans to be an integral part of mineral working proposals. These must demonstrate how effective, progressive restoration will be achieved in the shortest possible timescale, to the effect of ensuring the minimum amount of disturbance is achieved; and
- Positively encouraging restoration, which will not limit the range of potential acceptable after-uses and that, will secure long lasting community and environment benefit including in terms of biodiversity, geological conservation interest, and where appropriate, the reinstatement of the highest possible achievable grade of best and most versatile agricultural land.

Section 6 | Secondary & recycled aggregate supplies

Maximising the use of secondary and recycled aggregates

Reasoned justification

80. Once taken out of the ground, primary minerals cannot be replaced – they are a finite resource. Their working and onwards movements can also be energy intensive and disruptive to the natural environment and neighbouring land uses. It is therefore important to try and achieve maximum benefit from primary minerals and to facilitate alternative options which are more sustainable. A means of achieving this is to support the use of recycled and / or secondary aggregates.
81. The supply of locally-sourced recycled aggregate in Gloucestershire has been well in excess of 100,000 tonnes per annum for a number of years²⁴. It largely arises from regeneration and re-development projects from across the county and includes construction and demolition material, which has been transported to fixed plant, usually located at waste management sites or minerals sites. Demolition wastes crushed on-site using mobile plant and utilised on site is also likely to account for a substantial proportion of local recycled aggregates. However, this supply is not accurately measured. Planned growth, particularly in and around existing built-up areas will undoubtedly provide an opportunity to increase the availability and diversity of recycled aggregate sources.
82. There is currently no production of secondary aggregate in Gloucestershire. However, the emerging development of a new EfW facility at Javelin Park near Gloucester has the potential to generate a local secondary aggregate source through the processing of incinerator bottom ash. Around 45,000 tonnes per annum of incinerator bottom ash aggregate (IBAA) may be made available if the EfW facility operates at its permitted capacity from 2019 onwards. Further development of thermal waste treatment could present opportunities to increase sources of IBAA or other related secondary aggregate materials locally and beyond.
83. The use of recycled and secondary aggregates in the construction industry has grown in the recent past through a combination of technological advancements and policy initiatives. National policy continues to encourage recycled and secondary aggregate use and expects it to be of key importance in the

²⁴ This figure is considered to be a notable underestimation of the amount of material likely to be used for this purpose. It is derived from limited confidential surveying of local waste management operators that handle inert construction and demolition wastes on their sites with the potential for creating recycled aggregate products.

management of future aggregate supplies, specifically ahead of the working of primary minerals²⁵.

Policy SR01 | Maximising the use of secondary and recycled aggregates

Non-minerals development should use secondary and recycled aggregates and / or building products in preference to primary aggregates wherever reasonably and practicable to do so.

For major non-minerals development the use of secondary and recycled aggregates and building products made from these materials, should be maximised and demonstrated as such through supporting evidence.

Linked to the delivery of plan objectives – SR, RM

Interpretation and implementation

84. The aim of policy SR01 is to increase awareness of and to encourage greater uptake of recycled and secondary aggregates within new development. In turn this should help stimulate local markets in favour of alternatives to primary land-won aggregates. A stimulated local market may also generate a more attractive investment environment that could further enhance alternative aggregate supplies over time through more efficient and effective infrastructure and product innovation.
85. All non-minerals development should ideally use as much secondary and recycled aggregates as possible within reasonable construction and design quality constraints, environment limits and where potential impacts on local communities are not made worse.
86. Specific efforts should be made with major non-minerals development proposals to maximise the use of secondary and recycled aggregates and this must be shown through supporting evidence. A focus on major development offers an opportunity to achieve meaningful change by way of economies of scale. It also enables an effective means of monitoring policy SR01.
87. The definition of major development is set out in planning regulations and this should equally apply to major non-minerals development²⁶. It involves 10

²⁵ National Planning Policy Framework (NPPF) section 13, paragraph 143, bullet point 2

²⁶ Town & Country Planning (Development Management Procedure) (England) Order 2015
<http://www.legislation.gov.uk/uksi/2015/595/article/2/made>

dwellings or more, or a site for housing of over 0.5 hectares; and for all other development types, any building that creates floor space of 1,000m² or more, or will be carried out on a site of 1 hectare or more.

88. Collaboration between the MPA and local planning authorities will be essential to achieve desirable increases in the demand and subsequent use of secondary and recycled aggregates. Local planning authorities will largely be responsible for determining accordance with policy SR01, but may seek advice from the MPA from time-to-time to ensure the realistic deliverability of proposals through confirmation of proposed sources and uses of secondary and recycled aggregates²⁷.
89. In respect to major non-minerals development proposals, consideration should be given to the amount and type of recycled and secondary aggregates that are to be used in construction and the anticipated proportions compared with other aggregates. Likely sources of recycled and secondary aggregates material will also be relevant and necessary for being able to demonstrate the deliverability of any commitments made.
90. The adopted Gloucestershire Waste Minimisation in Development Projects Supplementary Planning Document (SPD) contains a target of 10% of construction material being derived from recycled aggregates and sustainable sources²⁸. Non-minerals development proposals that fall short of this target will need to provide a robust justification.
91. In the majority of instance the evidence needed to support policy SR1 will relate to other local development plan policy requirements for major non-minerals development in Gloucestershire. For example, the use of recycled aggregate is also actively promoted under waste reduction and sustainable construction policies²⁹. Core Policy WCS 2 (Waste Reduction) specifically requests the submission of a Waste Minimisation Statement (WMS) that also includes a requirement to monitoring and measure waste generated during construction, and to show how its re-use on or off-site will be encouraged³⁰. To avoid unnecessary duplication it would not be unreasonable for matters covered by

²⁷ Data is presently collected by Gloucestershire County Council (GCC) in its capacity as the Minerals and Waste Planning Authority (M&WPA) to support both policy development and annual monitoring requirements covering the number and capacity of local waste management sites capable of generating recycled aggregate from construction & demolition waste sources and local facilities generating and marketing secondary aggregate.

²⁸ Adopted Gloucestershire Waste Minimisation in Development Projects Supplementary Planning Document (SPD)

<http://www.gloucestershire.gov.uk/extra/CHttpHandler.ashx?id=12849&p=0>

²⁹ Key adopted and emerging local development plan policies that specifically cover sustainable construction and commitments to recycled materials in construction included: - Stroud District Local Plan Delivery Policy ES1 (Sustainable Construction & Design), Forest of Dean District Core Strategy Policy CSP.1 (Design and environmental protection) and emerging Gloucester, Cheltenham and Tewkesbury Joint Core Strategy Policy SD4 (Sustainable Design and Construction).

³⁰ The tasks relating to the re-use of waste material, which includes construction & demolition waste as a recycled aggregate are contained within stage 1 (project planning) and stage 2 (construction activities) of the checklist for preparing a waste minimisation statement <http://www.gloucestershire.gov.uk/extra/CHttpHandler.ashx?id=12849&p=0>

policy SR01 to be incorporated as part of a broader submission of evidence, such as an expanded WMS.

92. Infrastructure matters related to the supply of secondary and recycled aggregates are dealt with through other local development plan policies covering the county. The policies contained within the adopted Gloucestershire Waste Core Strategy (WCS) are more likely to be of key importance. New, expanded or maintained recycled aggregate sources will largely be influenced by the successful implementation of Core Policy WCS 4, which is concerned with inert waste recycling & recovery, and Core Policy WCS 11 that deals with the safeguarding of sites for waste management³¹.

³¹ Adopted Gloucestershire Waste Core Strategy (WCS) (November 2012)
<http://www.gloucestershire.gov.uk/extra/CHttpHandler.ashx?id=53886&p=0>

Section 7 | Mineral safeguarding

Mineral Safeguarding Areas (MSAs)

Reasoned justification

94. Primary minerals are a finite natural resource that should be afforded protection for the benefit of future generations. Minerals can only be worked where they naturally occur, and with increasing pressure on land from a range of different uses, are at risk of being needlessly sterilised.
95. Sterilisation occurs where surface development is allowed to overlay or prevent access to mineral resources. Without demolition and site clearance of surface development, minerals resources are effectively lost as they are unable to be worked.
96. Mineral safeguarding provides a means of balancing the need for surface development against the continued protection of mineral deposits that may prove to be of future economic value. It involves identifying the location and extent of mineral deposits and mapping this information in the form of Mineral Safeguarding Areas (MSAs). It also includes possible restrictions on new surface development that could affect the ability of minerals to be worked in the future. This approach to mineral safeguarding is supported within national policy³².

Policy MS01 | Non-minerals development within MSAs

Non-minerals development within a Mineral Safeguarded Area (MSA) will be permitted provided: -

- **Mineral sterilisation will not occur; or**
- **It is appropriate and practicable to extract the mineral prior to non-minerals development taking place; or**
- **The overriding need for the development outweighs the desirability to prevent safeguarded minerals from being sterilised.**

Linked to the delivery of plan objective – RM

³² National Planning Policy Framework (NPPF) section 13, paragraph 143, bullet point 3; and Planning Practice Guidance (PPG) paragraph: 002
Reference ID: 27-002-20140306.

Interpretation and implementation

97. MSAs for Gloucestershire are broadly defined using the British Geological Survey (BGS) Mineral Resource Map for Gloucestershire³³. This is the best available technical information on the extent of mineral deposits. It includes the county's distribution of superficial sands & gravels; the Carboniferous coal measures within the Forest of Dean; Carboniferous limestones and sandstones; Jurassic limestones; and Permian Bridgnorth and Triassic Bromsgrove sandstones.
98. The Coal Authority has also produced a plan made up of surface coal resource areas from across the country for safeguarding purposes³⁴. It identifies both the Newent and Forest of Dean Coalfields.
99. Local mineral deposits of known economic value, but not set out on the BGS Mineral Resource Maps, have also been identified for safeguarding. These include Devonian Brownstones and Lower Lias Jurassic clays³⁵.
100. Potential oil and gas resources are not included within the county's MSAs as it is unnecessary to do so³⁶. Oil and gas exploration is deemed to be a sufficiently adaptable and flexible operation that is capable of overcoming potential sterilisation risks posed by non-mineral development³⁷.
101. The location and extent of all Gloucestershire's MSAs are set out in the plan's policies map³⁸.
102. There is no presumption in favour of mineral working within an MSA. Also, the size and scale of each MSA is not representative of need or can be used as economic justification for future mineral working to be allowed take place over the plan period. Economic viability can change over time depending upon evolving trends in demand, the comparable value of mineral resources and the costs associated with working.

³³ BGS was commissioned by Government to produce mineral resource information to support national, regional and local planning. This project was completed in 2006 and has been converted into a web-based resource. The information outlines the broad extent of important mineral resources across England, includes those within Gloucestershire. The web-based resource can be found at: - <http://www.bgs.ac.uk/mineralsuk/maps/maps.html>

³⁴ The Coal Authority has produced web-based resources outlining the extent of the UK's surface coal resources areas, including for the administrative area for Gloucestershire. This can be found at: - <http://mapapps2.bgs.ac.uk/coalauthority/home.html>.

³⁵ The BGS Solid & Drift Edition 1:50 000 series for Moreton-in-Marsh, Gloucester and Monmouth delineates the extent of mineral resources that have not been included within the BGS commissioned local Mineral Resource Map. This includes Devonian Brownstones worked as a building stone and Lower Lias Jurassic clays exploited as brick clay.

³⁶ Planning Practice Guidance (PPG) Paragraph: 108 Reference ID: 27-108-20140306

³⁷ The exception to this is the surface infrastructure / development linked to oil and gas exploration. This will of course need to be safeguarded from incompatible non-minerals development being permitted nearby. Policy MS02 is most likely to apply under these circumstances after the designation of a MCA, which would occur once an oil & gas proposal comes forward and gains the necessary planning permission(s) within Gloucestershire.

³⁸ The Policies Map for the Minerals Local Plan for Gloucestershire can be found at: - <http://www.gloucestershire.gov.uk/proposalsmap>

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103. The extensive coverage of local MSAs means that a proportionate approach is needed in order to effectively implement mineral safeguarding in Gloucestershire. This is to avoid creating an overly burdensome process that could risk unnecessarily stifling local development ambitions.
 104. It would be unreasonable to expect planned for non-minerals development presented as site allocations within an adopted local plan to be subject to additional mineral safeguarding requirements when detailed proposals are brought forward for consideration. The matter of mineral safeguarding should be satisfactorily dealt with through the site selection process.
 105. Furthermore, not all non-mineral development types will either sterilise underlying mineral resources or be of a sufficient land take to meaningfully prevent or hinder access for future working within an MSA.
 106. Appendix 2 sets out the Gloucestershire MSA implementation schedule. It confirms the types and scale of non-minerals development that has potential to create mineral safeguarding issues and therefore should be assessed against policy MS01. All other non-minerals development will be exempt from the policy.
 107. The safeguarding of mineral deposits will require collaboration between the MPA and local planning authorities. Non-minerals development proposed within an MSA and which are eligible for consideration under policy MS01 should be subject to consultation with the MPA. No decisions should normally be taken until a response is then provided.
 108. Where non-minerals development poses a risk of sterilisation, careful consideration will be given to the presence of mineral deposits worthy of continued safeguarding and / or whether there is a realistic prospect that prior mineral working could happen before the non-minerals development takes place. To address these matters, non-minerals development proposals must be accompanied by a mineral resource assessment (MRA) that may need to include an economic viability appraisal of the underlying mineral deposits and a detailed analysis of both potential operational and planning constraints and reasonable measures that could be employed to overcome them. The planning analysis will be heavily influenced by the policy requirements set out in the remainder of this plan.
 109. An MRA may also consider the acceptability or otherwise of non-minerals development based upon whether there is an overriding need for the development including at the expense of prior working of any underlying minerals.

Minerals Consultation Areas (MCAs)

Reasoned justification

110. The working, processing and movement of minerals within a mineral site can impact upon their immediate surroundings and nearby local communities. Dust, noise, light pollution, vibration and vehicle movements are common issues that need to be very carefully considered and effectively managed. However, there are non-minerals development types for which achieving acceptable levels of mitigation can prove extremely difficult to achieve and potentially overly restrictive or impractical to implement. Non-minerals development of this nature can be described as incompatible with mineral operations.
111. To ensure local mineral supplies are able to continue without being unreasonably hindered, it is important that existing mineral workings and areas of potential working are safeguarded against potentially incompatible non-minerals development.
112. Defining and acting upon Mineral Consultation Areas (MCAs) is a form of safeguarding for minerals support in planning legislation, national policy and planning practice guidance³⁹.

Policy MS02 | Non-minerals development within MCAs

Non-minerals development within a Mineral Consultation Area (MCA) that will prejudice existing permitted and / or planned mineral operations will not be permitted unless: -

- **It forms part of a planned development strategy or regeneration scheme that has wider social, environmental and / or economic benefits, which will clearly outweigh the desire to safeguard mineral working or its potential within an MCA.**

Linked to the delivery of plan objective – RM

³⁹ The Town & Country Planning Act 1990, Schedule 1, Paragraph 7, Sub paragraph 4 and 7 details consultation requirements in two-tier areas for local planning authorities and the County Council, where (*following notification*) development is likely to affect or be affected by mineral working (other than coal). National Planning Policy Framework (NPPF) section 13, paragraph 143, bullet point 3 advises on the need for local plans to define MCAs, whilst Planning Practice Guidance (PPG) Paragraph: 221 Reference ID: 27-221-20140306 provides the defined purpose of MCAs as a consultative requirement for district or borough councils for informing the respective Mineral Planning Authority (MPA) of proposals for non-minerals development.

Interpretation and implementation

113. All active mineral sites and on-site infrastructure within Gloucestershire are safeguarded through individual MCAs. Additional MCAs exist for sites containing unimplemented planning permissions for mineral working, dormant minerals sites⁴⁰, and areas identified in the plan as specific sites, preferred areas and areas of search for future mineral working (see section 9 of the plan). Land extending outwards from each site boundary has also been included within MCA designations to a distance of 250 metres. The location and extent of all Gloucestershire's MCAs are set out in the plan's policies map⁴¹.
114. It would be unreasonable to expect planned non-mineral developments such as site allocations (for housing, employment etc.) within adopted district local plans to be subject to additional mineral site safeguarding requirements. The matter should have been satisfactorily resolved through the site selection process. Also, not all non-minerals development types are incompatible with mineral working and will prejudice site operations. To address this matter, a MCA implementation schedule is provided under Appendix 3. It identifies the types of non-mineral development exempt from policy MS02.
115. Effective mineral site safeguarding requires collaboration between the MPA and local planning authorities. Where potentially incompatible non-minerals development is proposed within an MCA, the MPA should be formally notified by the relevant local planning authority and no decisions should normally be taken until a response is provided.
116. For non-minerals development subject to the requirements of policy MS02 initial consideration will be given to compatibility issues with existing and / or planned mineral operations contained within an MCA. Important to this will be the degree and nature to which conflicts may occur specifically in relation to the ability for safeguarded mineral sites to operate as they are permitted to do so. Any mitigation that would minimise the sensitivity of non-mineral developments to mineral operations will be relevant.
117. The acceptability of potentially incompatible non-minerals development within an MCA will also be dependant upon its strategic significance and impact on the delivery of the adopted local plan balanced against the importance of the supply of local minerals currently and in the future.

⁴⁰ Under the terms of the Environment Act (1995) a mineral site defined as 'dormant' is where no minerals development has been carried out to any substantial extent in, on, or under the site at any time in the period between 22nd February 1982 and 6th June 1995

⁴¹ The Policies Map for the Minerals Local Plan for Gloucestershire can be found at: - <http://www.gloucestershire.gov.uk/proposalsmap>

Safeguarding minerals infrastructure

Reasoned justification

118. Efficient and effective mineral infrastructure is vital to the continuation of steady and adequate supplies of mineral for Gloucestershire and beyond. It can include transport facilities that moves minerals in and out of the county and added value plant.
119. In Gloucestershire, mineral infrastructure is often sited close to other development types due to the mutual benefits of well connected transport links and proximity to local markets. However, this can create strong competition for the use of land that increases the risk of incompatible developments located within close proximity of each other and / or the encroachment of one land use over another.
120. Effective site safeguarding for the county's mineral infrastructure is therefore needed to avoid conflicting land uses from disrupting supply networks and / or generating a loss of handling capacity or future capability.
121. National policy and practice guidance recognises the importance of mineral infrastructure safeguarding and identifies several different types of facility that may reasonable be subject to its requirements⁴².

Policy MS03 | Safeguarding mineral infrastructure

Non-minerals development on, or near to, a safeguarded mineral infrastructure site, which will adversely affect the ability to carry out permitted mineral-related operations and / or would prejudice planned operations from taking place will not be permitted unless: -

- **The safeguarded mineral infrastructure site is no longer suitable or viable; or**
- **A suitable replacement mineral infrastructure site has been identified and permitted.**

Linked to the delivery of plan objectives – SR, RM and PS

⁴² National Planning Policy Framework (NPPF) section 13, paragraph 143, bullet point 4; and Planning Practice Guidance (PPG) paragraph: 006
Reference ID: 27-006-20140306

Interpretation and implementation

122. Mineral infrastructure sites safeguarding under policy MS03 are introduced in Appendix 4 and their location and extent are set out in the plan's policies map⁴³. However, the number and location of sites may evolve over time due to new permissions being granted and facilities closing down. Where changes occur these will be reported within the next available annual monitoring report of the MPA and the plan's policies map revised
123. The effective safeguarding of mineral infrastructure sites requires collaboration between the MPA and local planning authorities. Where non-minerals development is proposed on or nearby a safeguarded site, the MPA should be consulted and no decisions should normally be taken until a response is provided. A distance of 150 metres as a consultation area from a safeguarded mineral infrastructure site applies where nearby non-minerals development proposals are concerned⁴⁴.
124. Non-mineral developments proposed on or nearby a safeguarded site will need to demonstrate how incompatibility is to be avoided. Any mitigation measures put forward, which will either satisfactorily minimise impacts and / or will sufficiently reduce sensitivity to mineral infrastructure operations will be carefully considered. Particular attention will be given to the extent to which the existing, planned or potential capacity for mineral storage, processing and transportation will be able to occur.
125. Where non-mineral developments are to result in the removal or the overly restricted functioning of a safeguarded mineral infrastructure site, proposals must show how the overall network of mineral infrastructure serving the county and beyond will not be adversely affected at the time and into the future. To achieve this robust evidence should be provided that demonstrates how the safeguarded site can no longer accommodate mineral infrastructure on practicality or viability grounds; and / or there is no interest in continuing operations or developing future mineral infrastructure uses.
126. Alternatively, if a suitable replacement mineral infrastructure site is to be offered, it must be acceptable in planning terms confirmed through an extant planning permission and be at least equivalent in terms of the handling capacity, accessibility, location in relation to the market and suitability to carry out comparable functions such as the processing and / or stockpiling of minerals.

⁴³ The Policies Map for the Minerals Local Plan for Gloucestershire can be found at: - <http://www.gloucestershire.gov.uk/proposalsmap>

⁴⁴ The use of an additional 150m 'zone' around safeguarded mineral infrastructure sites represents pragmatic approach for ensuring the assessment of sensitivity and potential compatibility of nearby non-mineral developments with the continued functioning of mineral infrastructure sites.

Section 8 | the future supply of minerals

127. Facilitating sufficient supplies of minerals is essential for sustainable economic growth and quality. However, in doing so a balance needs to be struck between making an appropriate contribution towards the need for minerals both locally and beyond, and ensuring this is undertaken in a timely way and proportionately within environmental limits and without unnecessarily affecting local communities.
128. Local mineral supplies specific to Gloucestershire and covered by the plan include: - primary land-won aggregates – crushed rock and sand & gravel; sandstone and limestone used for natural building stone; clay for brick-making and other civil engineering purposes; and hydrocarbons made up of coal, oil and gas.
129. Supplies of minerals are also heavily dependent upon the support of local infrastructure such as processing plant used to develop raw minerals into a range of different products needed in construction and other industrial processes. Other ancillary activities support increasing efficient and effective mineral working and the movement of minerals from place to place.

Crushed rock and sand & gravel aggregates

Influencing factors on future aggregate provision

Establishing local supply trends and forecasting future demand using Local Aggregate Assessments (LAAs)

130. A Local Aggregate Assessment (LAA) is an assessment of trends in supply and demand for aggregates from within a mineral planning authority's area⁴⁵. It is updated annually and is based on collated information, which sets out a rolling average of 10 years worth of primary aggregate sales. It also includes other relevant local data and an assessment of other supply options including marine dredged and recycled & secondary aggregate sources.

⁴⁵ Planning Practice Guidance (PPG), Planning for aggregates Section, paragraph: 067 Reference ID: 27-067-20140306.

131. The LAA for Gloucestershire was first published in November 2013 and contained supply data up to the end of 2011. A 4th version LAA was published in summer 2016 and covers the period up to the end of 2014⁴⁶.
132. The 4th version LAA identifies that for the 10 years between 2005 and 2014 (inclusive), average annual sales of primary aggregates from within the county stood at 1.517 million tonnes for crushed rock and 0.788 million tonnes for sand & gravel.
133. In making provision for aggregates, significant weight should be given to the prospect of average annual sales as expressed within the LAA, being effectively maintained.

The role and significance of National and Sub-National Guidelines

134. Historically, deciding how much aggregate should be provided for was achieved under a centrally-led process. National government predicted the need for aggregates across the country and then apportioned this total to each sub-national area (region) of England. A further break down was then undertaken to each mineral planning authority at the local level. Making decisions at a sub-national level involves technical advisory groups called Aggregates Working Parties (AWPs). For the South West of England an AWP has been in existence for many years. The South West AWP is made up of all local mineral planning authorities in the South West of England, the minerals industry and other government agency representatives.
135. The current aggregate apportionment for the South West of England covers the period from 2005 to 2020. It amounts to 412 million tonnes of crushed rock and 85 million tonnes of sand & gravel⁴⁷. For Gloucestershire the recommendation of the AWP, which supported the then emerging South West Regional Spatial Strategy (SW-RSS)⁴⁸, was for provision to be made for a local apportionment equal to 36.01 million tonnes for crushed rock and 16.07 million tonnes for sand & gravel^{49 50}.

⁴⁶ Information on Gloucestershire's Local Aggregate Assessments (LAAs) can be found at: -

<http://www.gloucestershire.gov.uk/extra/article/115911/Local-Aggregates-Assessment>

⁴⁷ Published CLG National and Regional guidelines for aggregate provision in England (2005-2020) can be found at: -

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/7763/aggregatesprovision2020.pdf

⁴⁸ The South West Regional Spatial (SW-RSS) was designed to provide a regional level planning frameworks for the South West region including Gloucestershire and was introduced through the Planning & Compulsory Purchase Act (2004). An emerging SW-RSS was prepared throughout the mid 2000's but this was never formally adopted and therefore not included in the Development Plan for Gloucestershire.

The emerging SW-RSS was revoked through the provision of the Localism Act (2011) by way of an order laid before parliament in April 2013.

⁴⁹ The MPA-level recommendations made by the SW AWP towards meeting the present sub-national aggregate guidelines, are published in South West Aggregates Working Party Annual Report (2010): -

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/201196/SWRAWP_Report_10_Final_WEB.pdf

⁵⁰ The annual expression of the local apportionment for Gloucestershire between 2005 and 2020 is equal to 2.25 mtpa for crushed rock and 1.0mtpa for sand and gravel.

136. National policy advises that making a contribution towards national and sub-national guidelines should be a factor when deciding upon how much local provision should be planned for⁵¹. The guidelines are also a valid material consideration when making decisions on planning proposals for aggregate mineral developments.

The monitoring of aggregate landbanks

137. Monitoring primary land-won aggregate landbanks is an established method for determine how much provision might need to be supported, through the preparation of a minerals local plan. Aggregate landbanks are made up of the remaining mineral reserves within valid planning permissions for a type of aggregate over a given location, which is commonly the mineral planning authority area.
138. Primary land-won aggregate landbanks are expressed in years based on how long the remaining reserves would in theory be available to keep pace with demand as determined using the latest LAA.
139. National planning policy advises upon the use of thresholds, described as – *minimum landbank levels* – for different types of primary aggregate. These are applicable when preparing new local planning policies and making planning decisions. They act as a justification for new minerals development that will add to the level of local aggregate reserves. For crushed rock, national policy states that at least a 10 year landbank of permitted reserves should be maintained. For sand & gravel the figure is at least 7 years⁵².
140. Seeking to maintain sizeable minimum landbank levels is a reflection of the timeframes involved in moving from a submitted planning proposal to an active site that is working minerals. Minimum landbank levels are deemed proportionate for ensuring local supplies that are kept steady and adequate over time. They also give some certainty to the mineral industry and their investors who are needed to provide vital up-front capital investment⁵³.
141. The existence of primary aggregate landbanks at or above the minimum landbank levels should not be seen as a justifiable reason to restrict the creation of further aggregate reserves. Circumstances may prevail where local markets are insufficiently supplied despite there being a maintained landbank at or above the minimum level. For example; transport links between mineral sites and local markets may not be of sufficient capacity to ensure worked minerals can be delivered in large enough quantities to keep up with demand. There may also be

⁵¹ National Planning Policy Framework (NPPF) section 13, paragraph 145, bullet point 4

⁵² National Planning Policy Framework (NPPF) section 13, paragraph 145, bullet point 6

⁵³ Planning Practice Guidance (PPG) minerals section, paragraph: 081 Reference ID: 27-081-20140306

a lack of the right quality and type of aggregates to meet specific requirements for end users. Furthermore, productive capacity constraints at mineral sites can also make it unachievable to sustain supplies at a steady and adequate rate⁵⁴, even at the strategic level, where a group of mineral sites may be involved. In addition, where reserves are increasingly concentrated in a small number of mineral workings, beneficial competition may be put at risk. This can unduly expose local supply chains to the commercial fortunes of just a few operators.

142. In Gloucestershire the countywide primary land-won aggregate landbanks as of the end of 2014, amounted to 17.13 years for crushed rock and 6.9 years for sand & gravel⁵⁵.

Making provision for crushed rock

Supporting explanation

143. Based on the data set out within the 4th version LAA, the plan will consider how best it can facilitate the provision based on a continued supply of at least 1.517 million tonnes of crushed rock aggregate per annum from Gloucestershire through to the end of 2032. It will also look to ensure that a sufficient landbank of reserves is always maintained at or above the minimum level of 10 years. To achieve this, provision equal to 42.476 million tonnes will need to be made⁵⁶.
144. Remaining permitted reserves of crushed rock will undoubtedly make a significant contribution to the plan's future provision requirement, but are insufficient on their own to meet it in full. As a result a shortfall is anticipated. This is equal to 16.486 million tonnes or the equivalent of almost 11 years of additional sales.
145. However, local circumstances exist within the county that mean applying a countywide approach to future provision requirements for crushed rock aggregate, may present some difficulties. To do so could inadvertently undermine the maintenance of steady and adequate aggregate supplies throughout the plan period, particularly once any anticipated shortfalls in provision start to occur. The county's two resource areas for crushed rock aggregate – the Forest of Dean and the Cotswolds, both have the potential to experience aggregate supply challenges regarding the quality and local capacity of available aggregates.

⁵⁴ These matters are all noted as reasonable justifications to adopt a degree of flexibility when applying landbank indicators within National Planning Policy Framework (NPPF) section 13, paragraph 145, bullet point 6; and Planning Practice Guidance (PPG) mineral section, paragraph: 064, reference ID: 27-064-20140306 and paragraph: 084 reference ID: 27-084-20140306.

⁵⁵ Based on the 4th LAA for Gloucestershire

⁵⁶ For a full breakdown of the calculations informing future provision covered by the plan see Appendix 5

146. Furthermore, a countywide approach could also be at odds with national policy in respect of future aggregate working from within valued environments. MPAs are encouraged to facilitate the maintenance of aggregate landbanks from outside of AONB designations⁵⁷. A substantial part of the Cotswold resource area lies within the Cotswolds AONB.
147. Consequently, a local approach to future provision requirements for crushed rock aggregate is considered to offer a way of overcoming both supply challenges and national policy. It also affords the plan a deliverable strategy for demonstrating how steady and adequate supply throughout the plan period can be effectively enabled.
148. The local approach seeks to acknowledge the historic trend in the supply of crushed rock aggregate between the Forest of Dean and Cotswold resource areas as a means of distributing the shortfall in provision. It equates to a split of 70:30 respectively in the contribution made by the two resource areas.
149. Overall the amount of additional provision that the plan should be considered remains unchanged at 16.486 million tonnes. However, based on the landbank of reserves as at 31/01/2014 and the 70:30 split, the requirement from the Forest of Dean is 14.063 million tonnes. For the Cotswold resource area it is 2.423 million tonnes. Appendix 5 details the application of the local approach and calculations used to determine the future provision requirements for crushed rock from Gloucestershire.
150. Section 9 of the plan sets out in detail how the anticipated shortfall in aggregate provision will be handled across the two resource areas. It includes the allocation of sites with the potential to support future crushed rock aggregate working (policy MA01). It also establishes criteria for assessing the acceptability of minerals development proposals for aggregate working outside of site allocations (policy MA02).

Making provision for sand & gravel

Supporting explanation

151. In line with the 4th version LAA, the plan aims to support steady and adequate supplies of sand & gravel aggregate of at least 0.788 million tonnes per annum throughout to the end of 2032. It will also look to ensure that a sufficient landbank of reserves is always maintained at, or above the minimum level of 7

⁵⁷ National Planning Policy Framework (NPPF), section 13, paragraph 144, bullet point 2

years. To achieve this, provision equal to 19.7 million tonnes will need to be made.

152. Remaining permitted reserves of sand & gravel will make a contribution to meet the plan's provision requirements, although they are insufficient to meet it in full. As a result a shortfall will be generated amounting to 14.24 million tonnes. This is equivalent to a little over 18 years of additional working.
153. Section 9 of the plan sets out in detail how the anticipated shortfall in aggregate provision will be handled. It includes the allocation of sites with the potential to support future sand & gravel aggregate working (policy MA01). It also establishes criteria for assessing the acceptability of minerals development proposals for aggregate working outside of site allocations (policy MA02)

Policy MW01 | Aggregate provision

Minerals development proposals for aggregate working will be permitted, where it can be demonstrated: -

- **It will make a contribution towards maintaining throughout and at the end of the plan period, the relevant aggregate landbank requirement of at least 10 years for crushed rock or at least 7 years for sand & gravel; and**
- **The requirements of policy MA01 (Aggregate working within site allocations) or policy MA02 (Aggregate working outside of site allocations) can be satisfactorily met.**

Linked to the delivery of plan objective – PS

Limestone and sandstone for natural building stone

Reasoned justification

154. Natural Building stone is the collective term used to describe the construction material often used as a walling and roofing stone, dimension stone, and for ashlar, rubble masonry, quoins, lintels, and other architectural masonry.
155. The working of natural building stone is important to Gloucestershire. It contributes to local economic diversity and supports cultural heritage, particularly

across its rural areas. The supply of natural building stone is also integral to efforts to protect and maintain the historic built character of the county and the restoration of regionally and nationally significant built assets⁵⁸. Building conservation projects and extensions to existing local built historic assets generate much of the local demand.

156. Natural building stone also has a role to play in promoting local distinctiveness and vernacular styles in new build schemes, principally within conservation areas or where it is advised within local design codes or guidance⁵⁹.
157. In Gloucestershire, natural building stone is derived from sandstone and limestone, sourced from resource blocks that are broadly contiguous with the Forest of Dean and Cotswold crushed rock aggregate resource areas respectively. For reasons of site management issues and economic viability, minerals with natural building stone potential are sometimes marketed as a crushed rock aggregate, agricultural lime or employed in other industrial uses. This is often the case where mineral site 'waste' is generated – a consequence of the needing to meet particularly restrictive building stone specifications.
158. Natural building stone production is low compared with aggregate working, and commonly takes place at small local quarries, usually with only generating a few thousand tonnes worth of sales per year. The colour, texture and availability of worked minerals suitable for different end uses are very variable and marked differences can occur even within an individual quarry unit. As a result working can be intermittent and limited, and heavily influenced by changeable demand for local stone.
159. The county's key natural building stone resources are found within or near to a number of the highly valued landscapes such as the Cotswold and Wye Valley AONBs and other local built historic and environmental assets. This means any future development must be carefully scrutinised and clearly justified.
160. It is vitally important that any future working does not unnecessarily cause harm or create adverse impacts that will lead to a reduction in the quality of important local features and characteristics. This may prove particularly challenging where a relative dispersed pattern of small mineral operations is in existence, some of which are intermittently working often over an extended period of time.

⁵⁸ More recent nationally significant restoration projects that have utilised natural building stone sourced from the Cotswolds include: - St. George's Chapel at Windsor Castle, The Houses of Parliament and Hampton Court Palace in London and Truro Cathedral, Cornwall. Natural building stone from the Forest of Dean has also been used in the regeneration of Bath Spa Railway Station and Hereford Cathedral

⁵⁹ The Cotswold Design Code exemplifies local guidance that influences the use of natural building stone materials. It was published in 2000 as supplementary planning guidance (SPG) to support policy 42 of the adopted Cotswold District Local Plan (2001 – 2011) | <http://www.cotswold.gov.uk/media/241227/The-Cotswold-Design-Code.pdf>

Policy MW02 | Natural building stone

Minerals development proposals for small scale natural building stone working will be permitted, where it can be demonstrated: -

- **There are no suitable, viable and more sustainable alternative sources available;**
- **They will positively contribute towards the maintenance of the historic built environment and will encourage local distinctiveness and good quality design;**
- **They will make a positive contribution to sustaining or growing the local economy and will uphold the cultural heritage of the Forest of Dean or the Cotswolds; and**
- **All supplementary working of minerals for non-building stone purposes will not prejudice the ability to satisfactorily achieve previously approved or acceptable in principle proposals for future site restoration that accord with policy MR1.**

Linked to the delivery of plan objectives – RM, PS, ENV and RA

Interpretation and implementation

161. Policy MW02 seeks to ensure that future natural building stone working in Gloucestershire is proportionate and will meaningfully contribute towards the need for local supplies to aid in the maintenance of the historic built environment both locally and beyond and protecting and promoting local distinctiveness through building design. This is in line with national policy, which recognises the necessity for local planning authorities to deal with demand for natural building stone in the repair of heritage assets⁶⁰. Policy MW02 also aims to contribute towards achieving an effective balance of meeting any demand with the ongoing protection and support for the conservation of environmental designations
162. Mineral development proposals for natural building stone working, including extensions to existing operations will need to be scrutinised to ensure that they are justified. This will involve careful consideration of demand, focused on the core purposes set out policy MW02 and the potential availability or otherwise of alternative, viable and sustainable sources. These could be local or further afield, including from outside of Gloucestershire. Of relevance will be an assessment of the comparable impact on local highway networks, local

⁶⁰ National Planning Policy Framework (NPPF), section 13, paragraph 144, bullet point 8

economic vitality and resilience and cultural heritage linked to protection of traditional rural skills⁶¹. For proposals within or that would affect the setting of the Cotswolds or Wye Valley AONB designations, the desirability of conserving the landscape and scenic beauty of the area and also its wildlife and cultural heritage will be an appropriate factor.

163. Where proposals seek to include supplementary non-building stone working, this will also need to be carefully reviewed. Key importance will be given to the ability to show the quality and / or quantity of the principal supply of natural building stone from the proposal will not be adversely affected. Site restoration plans, which have been previously approved should ideally be unhindered and remain implementable in full. For all new or revised restoration plans considered concurrently, the ability to meet with requirements set out within policy MR01 (restoration, aftercare and facilitating beneficial after-uses) will be relevant.

Clay for civil engineering purposes

Reasoned justification

164. Clay minerals can be used for a variety of civil engineering purposes including flood defence barriers, noise attenuation bunds, construction fill, landfill lining and capping and the lining for canals, ponds and other drainage-related features.
165. Gloucestershire has extensive and fairly widespread deposits of clay found within the Forest of Dean, along the Severn Vale and areas of the Cotswolds. Clays used in civil engineering have more recently been sourced from within the Severn Vale linked to landfill operations. It has also been worked in the past alongside other minerals such as sand & gravel and at occasional temporary borrow pits.
166. No evidence has been forthcoming to suggest the nature and scale of clay working currently undertaken for civil engineering purposes will change. Available reserves are also deemed to be adequate to keep pace demand. Nevertheless, it is plausible to consider that the scale, intensity and location of new or upgraded civil engineering projects could have enough influence on supply at a very local scale to stimulate new proposals, which will need to be carefully considered.
167. In the case of landfill operations, whilst the Gloucestershire Waste Core Strategy (WCS) indicates that local capacity is presently sufficient to meet the county's needs through to at least the end of the 2020s, this situation is being carefully

⁶¹ Traditional rural skills in a minerals context are largely concerned with stone cutting and stone masonry operations

monitored⁶². Provision has also been made within the WCS under core policy WCS 8 (*Landfill*) to consider the acceptability of new or expanded landfill developments. Furthermore, there are a number of emerging local infrastructure-related projects that could generate very acute local demand for engineering clay⁶³.

168. National planning policy categorises clay as an industrial mineral and states that plans should be made for its steady and adequate supply, which may include contributing to activities beyond the local area⁶⁴.

Policy MW03 | Clay for civil engineering purposes

Minerals development proposals for the working of clay for civil engineering purposes will be permitted, where it can be demonstrated: -

- **There are no suitable, viable and more sustainable alternative sources available; or**
- **They will make a contribution towards maintaining a steady and adequate local supply to meet demand.**

Linked to the delivery of plan objectives – RM and PS

Interpretation and implementation

169. The attention for policy MW03 is upon the achievement of a proportionate and balanced approach to future mineral development proposals for clay used in civil engineering. The importance of clay in the delivery and maintenance of much needed and crucial local infrastructure is without doubt and as such it is reasonable for provision to be made to support new proposals, where they are able to demonstrate how they will contribute towards maintaining a steady and adequate local supply.
170. Nevertheless, due to relatively small-scale and low key nature of the county's supply and potential for acute and much more localised demand to arise, it is important that a degree of flexibility is embraced. This would be further endorsed where engineering clay may be subject to potential mineral sterilisation and the

⁶² Gloucestershire Waste Core Strategy, paragraph 4.133

⁶³ The Gloucestershire Local Flood Risk Management Strategy (LFRMS) (2014) facilitates the prioritisation for funding and delivery of projects to reduce the risk of flooding locally. Over time the present LFRMS and future revisions may support infrastructure projects that require the importation of clay in bunds and flood defence barriers. Similar stimulus may arise from future progress with the ongoing restoration schemes such as the Stroudwater Navigation; Thames & Severn Canal; and Herefordshire & Gloucestershire Canal all of which may require new clay lining.

⁶⁴ National Planning Policy Framework (NPPF) section 13, paragraph 146.

possibility for prior-working under policy MS01 (Non-minerals development within MSAs).

171. Consequently, mineral development proposals for civil engineering clay may be considered in respect of their comparative advantage to other existing sources from within Gloucestershire, irrespective of the overall level of supply and demand currently being experienced.
172. This approach is most likely to be relevant to proposals located relatively nearby to their intended use. Traditionally this type of minerals development has been described as a borrow pit or incidental mineral working.
173. A comparative assessment appropriate to policy MW03 will need to show why other sources of clay are deemed to be unavailable, unsuitable and / or viable. Where this is not the case, consideration will then be given to a comparable analysis of relevant environmental matters, which amongst others, may include the impact on: - the local highway networks; the amenity of potentially affected local communities; and the quality of natural and built environment assets and other designations. Support for the deliverability of critical local infrastructure such as flood defence work, may also be a relevant factor along with the possibility of avoiding mineral sterilisation and the unnecessary stifling of otherwise acceptable non-minerals development.

Brick clay

Reasoned justification

174. Brick clay is the general term to describe clay and shale minerals used in the production of structural brick clay products including facing and engineering bricks, pavers, tiles for roofing and cladding, and vitrified clay pipes.
175. The working of brick clay minerals and associated manufacturing of structural brick clay products at brickworks within Gloucestershire is relatively small scale. There are presently only two active operations – in the north Cotswolds near Blockley and at Cinderford in the Forest of Dean. However, clay deposits with the potential for brick clay can be found in many localities throughout the county and have been exploited for this purpose in the past.
176. Gloucestershire is not a significant contributor by volume to the national supply of brick clay or structural brick clay products. However, the local industry plays an important role in supporting the security and diversity of supplies to meet demand generated from within the county and beyond. Local producers promote handmade and bespoke products of colours and textures that are invaluable in

protecting built historic assets and enabling new development projects to positively contribute towards the local character and distinctiveness. Whilst sufficient brick clay is available to cope with current local demand, the delivery of forecast local housing growth could change matters over the coming years.

177. National policy highlights brick clay as an important industrial mineral that mineral planning authorities should plan for⁶⁵. Key to this is support for steady and adequate supplies on a larger-than-local scale where necessary, including provision for stockpiling and a sufficient stock of permitted reserves or landbank of at least 25 years. Provision of this scale is deemed necessary to afford sufficient confidence in the amount of investment needed to set up a new plant or to maintain existing equipment.

Policy MW04 | Brick clay

Minerals development proposals for brick clay working or its long-term stockpiling will be permitted, where it can be demonstrated: -

- **They will make a contribution towards a landbank of brick clay sufficient to maintain a requirement of at least 25 years throughout and at the end of the plan period.**

Linked to the delivery of plan objectives – RM and PS

Interpretation and implementation

178. Policy MW04 seeks to ensure that appropriate and proportionate consideration is given to the availability of local supplies when new mineral development proposals for brick clay are brought forward. This is in line with planning practice guidance, which states that low availability of permitted reserves may be a strong indicator of urgent need and therefore policy support of new proposals⁶⁶.
179. Furthermore, brick clay could be a local mineral deposit subject to mineral sterilisation and the potential for prior-working under policy MS01 (Non-minerals development within MSAs). Consequently, the in-principle support for the long-term stockpiling of brick clay, which may be supported by prior-working should be given some weight when assessing submitted feasibility studies.

⁶⁵ National Planning Policy Framework (NPPF) section 13, paragraph 146

⁶⁶ Planning Practice Guidance (PPG) - Minerals (section), paragraph: 089, reference ID: 27-089-20140306

Energy Minerals – Coal

Reasoned justification

180. There are three coalfields present within Gloucestershire – the Forest of Dean, Newent and Oxfordshire-Berkshire, which lies on the eastern fringes of the county. The Forest of Dean Coalfield is the only one to have been successfully worked to any meaningful extent. The working of coal in Forest of Dean has taken place over many centuries and has been highly influential in how the built environment, local economy and its social and cultural heritage have evolved over time.
181. Presently, only very localised, low-key, intermittent working of coal remains within parts of the Forest of Dean Coalfield. This is carried out by small number of local free miners with rights to do so under ancient custom and law. Working occurs at relatively shallow depth and usually through inclined drift mines.
182. It is around 30 year since more significant, industrial-scale working of coal ceased within the Forest Dean. 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, although the last deep mines closed nearly 50 years ago in the mid 1960s.
183. There is a presumption against coal working set out within national policy. However, it is not precluded where it is possible to demonstrate environmental acceptably or where sufficient national local and community benefits outweigh any impacts associated with its working⁶⁷. Gloucestershire's coal resources are not yet exhausted and there still remains the possibility that local coal may be reconsidered as a viable and desirable resource to exploit again in the future.

Policy MW05 | Coal

Minerals development proposals for coal working will not be permitted unless:

-

- **They are considered to be environmentally acceptable; or**
- **They provide national, local or community benefits that clearly outweigh impacts likely to arising as a result of their working.**

Linked to the delivery of plan objectives – PS, ENV and LC

⁶⁷ National Planning Policy Framework (NPPF) section 13, paragraph 149

Interpretation and implementation

184. Policy MW05 confirms that at the local level, there is a presumption against future coal working. In Gloucestershire this is principally a matter for the Forest of Dean Coalfield.
185. Nevertheless, minerals development proposals for coal working, including small-scale operations and / or the re-opening of previous working sites, are entitled to be assessed as to their potential environmental impacts and the realistic possibility that sufficiently and acceptable mitigation measures could be put in place. In this regard, and as advised within planning practice guidance, very careful consideration will be given to the detailed environmental duty contained within the Coal Industry Act 1994 and whether this can be satisfactorily met⁶⁸.
186. The environmental duty seeks to ensure the preservation of natural beauty, the conservation of ecological and geological assets and the protection of built assets including those of historic and archaeological interest⁶⁹.
187. For mineral development proposals that are specifically for underground coal working, consideration will also need to be given to the possibility or otherwise that the following matters will be effectively dealt with – potential effects of subsidence, including the potential hazard of old mine workings; the treatment and pumping of underground water; monitoring and preventative measures for potential gas emissions; and the method for the disposal of colliery spoil⁷⁰.
188. In completing the analysis of the environmental acceptability minerals development proposals for coal working, all other relevant policy requirements set out in the remainder of this plan will need to have been satisfactorily addressed.
189. Where environmental acceptability is not achievable, other benefits may be presented that could outweigh the impacts caused by allowing coal working. These can be at any scale of significance – community, local and national level. Achieving the right planning balance in respect of outweighing benefits will always be taken on a case-by-case basis. However, local circumstances within the Forest of Dean Coalfield, point to small-scale, local, shallow coal operations carried out by Gloucestershire Freeminers, as the sort of coal development that is likely to be given favourable consideration as a means of supporting the conservation of cultural heritage and the micro-economy of certain rural communities.

⁶⁸ Planning Practice Guidance (PPG) Minerals (section), Paragraph: 147 Reference ID: 27-147-20140306

⁶⁹ Section 53 of the Coal Industry Act (1994) | <http://www.legislation.gov.uk/ukpga/1994/21/section/53>

⁷⁰ Planning Practice Guidance (NPPG) Minerals (section), Paragraph: 148 Reference ID: 27-148-20140306

Energy Minerals – Oil & Gas

Reasoned Justification

190. Oil and gas are important mineral resources and primary sources of energy in the United Kingdom. They underpin key aspects of modern society and are an important part of the UK's energy mix. Even accounting for the rise in alternative and renewable energy, it is anticipated that 70% of the UK's energy requirements will still be met by oil and gas into the 2040s⁷¹. Consequently, maximising economic production of oil and gas from UK reserves to provide reliable energy supplies, has become a key activity that the Government supports to minimise our risk to increasingly unstable international energy supplies.
191. The Crown owns all of the oil, gas and coal resources in the country. Crown property is administered by the Crown Estates. Companies who wish to exploit the Crown minerals are invited to bid for a Petroleum Exploration and Development Licence (PEDL) from the Government, issued via the Oil & Gas Authority (OGA). Licences are usually made available via competitive offerings that are held every few years⁷².
192. The granting of a conditional PEDL licence does not allow a licensee to exploit underground resources without obtaining the necessary planning consent. Permits from the Environmental Agency (EA) are also required, and specifically where coal resources may be affected, permission from the Coal Authority⁷³. Other permits and rights may need to be achieved depending upon the location and characteristics of the proposed development site.
193. The geology to support accumulations of oil and gas is present within parts of Gloucestershire. However, no commercially viable deposits have been discovered to date. Between the 1960s and 1980s exploratory drilling took place along the eastern flank of the county. All wells have been plugged and fully restored. None of the wells recorded positive results⁷⁴.
194. Limited information is presently available regarding any re-evaluation of potential oil or gas deposits within Gloucestershire. This includes through more innovative or unconventional techniques. The British Geological Survey (BGS) has

⁷¹ [UK Oil and Gas - Business and Government Action Strategy (March 2013)]

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/175480/bis-13-748-uk-oil-and-gas-industrial-strategy.pdf

⁷² The 13th PEDL was conducted in 2008. The 14th PEDL round commenced in 2010. However, due to seismic incidents in Lancashire in 2011 and concern over potential links to licensed exploration operations nearby, the 14th PEDL round was interrupted so as to undertake further investigation and appraisal of regulatory requirements. The 14th PEDL round recommenced in 2014.

⁷³ To exploit Coal Bed Methane (CBM) or Abandoned Mine Methane (AMM) operators must obtain a Coal Methane Access Agreement (CMAA) from the Coal Authority - <https://www.gov.uk/government/publications/coal-methane-access-agreements>

⁷⁴ Taken from BGS Mineral Resource Information in Support of National, Regional and Local Planning for Gloucestershire (comprising Gloucestershire and South Gloucestershire)

undertaken a broad level review of local circumstances focused on the county's coalfields – Forest of Dean, Newent and Oxfordshire-Berkshire. The conclusion is that limited or little potential may exist⁷⁵. However, continuing technological advancements in drilling and changeable economic viability may alter this view in the future.

195. In late 2015, four blocks that cover parts of Gloucestershire were awarded conditional PEDL licences. These are mostly contained in Forest of Dean near to the border with Monmouthshire and a small area around Sharpness in Stroud District⁷⁶. The condition attached to each licence prohibits all operations related to oil & gas development from taking place at or near to the surface of any land within the boundaries of all European sites found within a licensed block.
196. National policy states that minerals planning authorities should, when planning for on-shore oil and gas distinguish between the three phases of development (exploration, appraisal (testing) and address constraints on production and processing within licenced areas and encourage capture and use of methane from coal mines in active and abandoned coalfield areas⁷⁷. Planning practice guidance also advises that areas where proposals for hydrocarbon extraction may come forward should be highlighted and policies provided with criteria for assessing hydrocarbon extraction within licenced areas⁷⁸.

⁷⁵ Paragraph 6.2 of the BGS Mineral Resource Information in Support of National, Regional and Local Planning Report for Gloucestershire (comprising Gloucestershire and South Gloucestershire) – <https://www.bgs.ac.uk/downloads/start.cfm?id=2613>

⁷⁶ The PEDL 14th onshore oil and gas licensing round – Blocks Map

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

⁷⁷ National Planning Policy Framework (NPPF) section 13, paragraph 147, bullet points 1 and 4

⁷⁸ Planning Practice Guidance (PPG) mineral section, paragraph: 106, reference ID: 27-106-20140306.

Policy MW06 | Oil & Gas

Minerals development proposals for the exploration and / or production of oil & gas including through the deployment of unconventional techniques, will be permitted subject to: -

- **well sites and associated facilities being sited, so far as is practicable, to minimise impacts on the environment and local communities;**
- **development being located outside of Protected Groundwater Source Areas and Protected Areas for the purposes of the Infrastructure Act 2015, s.50, where hydraulic fracturing is specifically proposed;**
- **there being no unacceptable adverse impacts in terms of quantity and quality upon sensitive water receptors including groundwater, water bodies and natural habitats;**
- **all other environmental and amenity impacts being mitigated to ensure that there is no unacceptable adverse impact on the environment and local communities;**
- **exploration and appraisal operations being for an agreed, temporary length of time;**
- **there being no adverse impacts on seismicity where hydraulic fracturing is specifically proposed;**
- **the drilling site and any associated land being restored at the earliest practicable opportunity, to a high standard that reflects the character of the local landscape and where beneficial after-uses will be facilitated; and**
- **it being demonstrated that greenhouse gases associated with fugitive emissions from the exploration, testing and production operations will not lead to unacceptable adverse environmental impacts.**

Linked to the delivery of plan objectives – PS, ENV and RA

Interpretation and implementation

197. Oil and gas developments must be given careful attention through the planning stages of their approval. The nature and significance of issues that might arise can be complex and are strongly influenced by the technology utilised and the

phase of development proposed (e.g. exploration, testing (appraisal), and production).

198. Consequently, all applications for oil and gas developments will be considered on their individual merits. The acceptability of initial, exploratory drilling to establish the presence of hydrocarbon resources will not automatically mean proposals for future phases of oil and gas development (e.g. testing or appraising and production) will be granted permission. Material weight that could be attributed to the presence of previously permitted and implemented exploration proposals, will be limited only to those circumstances where continued exploration is being considered.
199. Policy MW06 encompasses all forms of onshore oil and gas working through the deployment of conventional and / or more unconventional hydrocarbon techniques. It incorporates a wide coverage of relevant planning matters that individual proposals are likely to face and will therefore need to be satisfactorily resolved. This is in combination with meeting the generic policy requirements set out in the remainder of the plan.
200. Unconventional hydrocarbons refer to oil and gas, which comes from sources such as shale or coal seams that also act as a reservoir. The term unconventional relates to the technologies that are now available to obtain these resources, which were previously considered to be 'locked' into rock formations due to prevailing unsuitable and / or uneconomic conditions. A key feature of unconventional working is the need for the prior stimulation of deposits before they can be obtained. This can include the injection of high-pressure fluids known as hydraulic fracturing; the abstraction of underground water for pressure release; and gasification through the introduction of oxygen and water / steam.
201. Hydraulic fracturing is associated with shale deposits that may contain shale oil and gas. Whilst water abstraction and gasification is used with previously and / or unworked coal resources to obtain gas – most notably methane. The generic name given to gas sourced from coal is Coal Bed Methane (CBM). Coal Mine Methane (CMM) and Abandoned Mine Methane (AMM) exist where previous underground coal working has taken place.
202. The amenity of local communities may be affected by the siting and layout of the surface operations associated with all types of oil and gas development. Key issues likely to be scrutinised include the generation of noise, artificial light and visual intrusion from the installation of drill infrastructure and traffic generated by staff and materials moving to and from a drilling site. For certain phases of oil & gas development there is the possibility that 24 hour operations may be requested for at least a period of time. This could prove to be a significant factor

- in determining the acceptability of any anticipated impacts and / or the likely success of mitigation measures designed to minimise their influence.
203. Oil and gas developments will also need careful assessment with respect to their potential impact on the natural environment including any designated protected areas and other valued assets. Demonstrating how unacceptable adverse impacts will be avoided or realistically be mitigated will be a very important planning matter to resolve.
204. As a consequence of evolving drilling technology, which may involve unconventional techniques and the introduction of water / steam or fluids and / or the abstraction of existing ground water, particular attention should be given to potential risks to the local water environment. Measures put forward to ensure both the quality and quantity of surface and ground water resources are not adversely affected will be rigorously scrutinised. Furthermore, the risk to the natural environment more generally, from possible exposure of artesian waters to surface and unconfined ground water resources will also need to be addressed.
205. In the event future oil & gas developments within Gloucestershire involve onshore hydraulic fracturing, safeguard requirements set out within the Infrastructure Act 2015⁷⁹ must be strictly adhered to. These specifically include no hydraulic fracturing from within ‘protected groundwater source areas’ or ‘other protected areas’.
206. Draft secondary legislation has been published, which has defined ‘protected groundwater source areas’ as Source Protection Zones (SPZ) 1 and ‘other protected areas’ as National Parks, the Broads, Areas of Outstanding Natural Beauty (AONBs) and World Heritage Sites⁸⁰. For Gloucestershire this could prove significant in the future if proposals are to be considered within the Cotswolds, Wye Valley and Malvern Hills AONBs and upon the county’s SPZ1 locations (see also policy DM05).
207. It is unclear as to whether the draft definitions to support the Infrastructure Act will change before the secondary legislation is enacted. As a result any future oil & gas developments involving hydraulic fracturing will need to be in accordance with the provisions of the Infrastructure Act and the associated secondary legislation as it emerges.
208. The scope for considering the relative merits of how Gloucestershire’s minerals are subsequently used is somewhat limited under the planning system.

⁷⁹ Section 50 of the Infrastructure Act 2015 <http://www.legislation.gov.uk/ukpga/2015/7/section/50/enacted>

⁸⁰ The Onshore Hydraulic Fracturing (Protected Areas) Regulations 2015
http://www.legislation.gov.uk/ukdsi/2015/9780111137932/pdfs/ukdsi_9780111137932_en.pdf

However, the Infrastructure Act includes provision for the Government to request advice from the Committee on Climate Change on the likely impact, which combustion of, and fugitive emissions from, onshore petroleum will have. In the event advice is published, it would not be unreasonable for the County Council as the MPA to take account of this when considering the acceptability of individual oil and gas developments that involve hydraulic fracturing⁸¹.

Ancillary minerals development

Reasoned Justification

209. Minerals extracted from the ground may need to undergo some form of processing before they can be put to use. This may include washing, screening, crushing, cutting and bagging. It could also involve some secondary processing such as the manufacturing of coated materials (e.g. asphalt); batching for mortar and concrete; and block, tile and brick-making, often this will include bringing some other different minerals to the site in order to manufacture the final product. Where this takes place within an existing mineral site it is termed ancillary minerals development.
210. These types of development can often go ahead without the need for planning permission. Many mineral processing activities benefit from permitted development rights⁸². However, where this is not the case new proposals must be carefully assessed to ensure they are genuinely needed to support mineral working operations as will the acceptability alongside mineral working.
211. Ancillary minerals development offers an opportunity to make best use of minerals, a principle that is supported by national policy⁸³. However, where permission is required this often results in fixed built structures and associated infrastructure that can bring a sense of permanency. Furthermore, both individually and / or collectively they can generate an industrial feel and character, which would otherwise be incompatible within the undeveloped rural areas that accommodate most of Gloucestershire's mineral sites. Therefore in some locations such as AONBs the MPA can be justified in removing permitted development rights meaning all forms of ancillary minerals development will require planning permission.

⁸¹ 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

⁸² Part 17 of the Town & Country Planning (General Permitted Development) Order 2015 covers matters relating to mining and mineral exploration. The entire order can be viewed on-line at: - http://www.legislation.gov.uk/uksi/2015/596/pdfs/uksi_20150596_en.pdf.

⁸³ National Planning Policy Framework (NPPF) section 13, paragraph 142

Policy MW07 | Ancillary Development

Ancillary developments within mineral sites will only be permitted, where it can be demonstrated: -

- **they will contribute towards achieving the best possible use of minerals sourced from within the boundary of the mineral site in which they are located; and / or**
- **any importation of minerals sourced from elsewhere represents the most sustainable option available; and**
- **all operations will be for a temporary period of time restricted to the life of the mineral site in which they are located and the removal of all built structures will occur as soon as is practicably possible once mineral working has ceased; and**
- **the ability to satisfactorily achieve previously approved or acceptable in principle plans for future site restoration that accord with policy MR01 will not be inhibited; and**
- **they will positively contribute towards sustaining or growing the local economy.**

Linked to the delivery of plan objectives – RM and RA

Interpretation and implementation

212. The purpose of policy MW07 is to ensure that ancillary minerals development represents a necessary function where it is proposed to take place within the county's mineral working sites. It also aims to make sure that the evolving network of ancillary minerals developments will occur in a sustainable manner compared to other options and that the removal of individual facilities will occur once the principal activity of mineral working has ceased.

213. All proposals for ancillary minerals development will need to demonstrate how they will function alongside, and be beneficial, to the wider mineral working activities of the site. In doing so information will be required to show how mineral processing will support diversity of mineral supplies and / or will be able to achieve certain mineral product specifications. Details of the arrangements

concerning the temporary nature of any built structures will also be required and these should incorporate a reasonable timetable for closure and dismantling, which will ensure previously approved or acceptable in principle mineral site restoration can be implemented.

214. Where the importation of minerals from elsewhere is included within a proposal this will only be acceptable where it represents the most sustainable option. A justification will be necessary to explain why the origin site(s) for imported minerals cannot carry out equivalent processing activities. In addition, consideration will need to be given to the presence of any existing alternative processing facilities that may be sited on nearby mineral sites within the same resource area or elsewhere covering the same market area. The reasons why these facilities are also not capable or suitable for accommodating planned importation of minerals should be provided.
215. Furthermore, in assessing the sustainability of importing minerals for processing, a comparison of environmental and other impacts with alternative processing options will be relevant. Additional influential matters may include: - efforts to minimise the amount of freight road miles travelled; increased opportunities to implement efficient haulage practices (e.g. backhauling); and sustaining or growing the local employment, particularly where traditional skills are to be employed. Other factors may arise or vary in significance depending upon the minerals being processed. These could involve the ability to meet certain mineral product specifications and / or to facilitate the creation of desirable blended products.
216. Proposals for the development of new or extended mineral processing facilities that are located outside of a mineral site represent an industrial land use. Their acceptability will need to be considered against the relevant non-minerals strategy and development management policies contained within the local Development Plan for the site concerned. Gloucestershire's local planning authorities (i.e. the six borough, city or district councils) will be responsible for making decisions on these types of development.

Section 9 | Areas for future aggregate working

217. This section of the plan provides the policy framework for showing how additional provision for primary aggregates may be made. It is chiefly concerned with identifying areas or sites with the potential for future aggregate working known as allocations. However, it also considers the circumstances under which future aggregate provision could reasonably be supported from outside of allocated areas or sites.

Allocations for future aggregate working

Reasoned justification

218. National policy advocates the use of three different forms of allocations for making provision for aggregates – Specific Sites, Preferred Areas, and Areas of Search⁸⁴. All three forms have been employed within the plan and are reflective of the different local circumstances that have influenced decisions to allocate land. The allocations are based on the requirements set out in section 8 and are aimed at supporting steady and adequate supplies of primary aggregates throughout and at the end of plan period at 2032.
219. Policy MA01 presents allocations with potential for future aggregate working in Gloucestershire. It incorporates a total of 10 allocations – five for the future working of sand & gravel and five for crushed rock limestone. Collectively, these allocations represent the most realistic and achievable solution for ensuring sufficient additional provision will be available throughout the duration of the plan.
220. The allocations are founded upon a rigorous review of evidence and the careful consideration of the conclusions drawn from numerous technical assessments specifically commissioned to support the plan's preparation.
221. A number of the allocations originate from the designated 'Preferred Areas' previously included within Gloucestershire Minerals Local Plan (1997-2006) and are supported by a substantial evidence base that underwent scrutiny during the former plan's preparation and adoption. Much of this information remains relevant and has been incorporated in the plan.

⁸⁴ National Planning Policy Framework (NPPF) section 13, paragraph 145, bullet points 3

Policy MA01 | Aggregate working within allocations

The principle of mineral working for aggregates has been accepted within the following allocations: -

- **Allocation 01 : Preferred Area at Stowe Hill / Clearwell;**
- **Allocation 02 : Preferred Area at Drybrook;**
- **Allocation 03 : Preferred Area at Stowfield;**
- **Allocation 04 : Preferred Area at Daglingworth;**
- **Allocation 05 : Preferred Areas at Huntsman's;**
- **Allocation 06 : Specific Site at Manor Farm, Kempsford;**
- **Allocation 07 : Preferred Area at Redpool's Farm, Twynning;**
- **Allocation 08 : Area of Search at Lady Lamb Farm, Fairford;**
- **Allocation 09 : Areas of Search at Land between Kempsford & Whelford;**
- **Allocation 10 : Areas of Search at Down Ampney and Charlham Farm;**

Minerals development proposals for the working of aggregates within allocations will be permitted, subject to satisfying the detailed development requirements set out in the plan for each allocation (see appendix 6) and where it can be demonstrated: -

- **existing permitted reserves are inadequate, or are likely to be so in the near future to maintain minimum landbank levels in accordance with policy MW01; or**
- **where minimum landbank levels are being sustained: -**
 - **constraints on the availability of existing permitted reserves and / or productive capacity are likely to limit output or restrict the range of available products over the plan period; or**
 - **increases in demand for aggregate are forecast with a reasonable degree of certainty to the extent that minimum landbank levels will not be able to be maintained throughout or at the end of the plan period.**

Linked to the delivery of plan objectives – RM and PS

Interpretation and implementation

222. Allocating land for future aggregate working does not guarantee a planning permission will be granted when minerals development proposals are brought forward. All cases will need to be carefully scrutinised and be able to demonstrate that relevant planning matters can be satisfactorily dealt with.
223. Crucial to assessing the acceptability of submitted proposals is the detailed development requirements provided for each of the plan's allocations (see Appendix 6). These identify location-specific issues, which are likely to be significant and that will need to be appropriately dealt with. The acceptability of proposals will be heavily influenced by the review of detailed development requirements. However, meeting the general policy requirements contained elsewhere in the plan will be of equal importance.
224. In addition, consideration will be given to the timely release of aggregates to allow future working from within allocated areas. It is critically important this happens in a manner that supports the provision for steady and adequate supplies of aggregates throughout the duration of the plan. The main policy indicator that is applicable is the maintenance of the relevant aggregate landbank to at least the minimum level as prescribed under policy MW01.
225. Nevertheless, proposals may also be acceptable even where a sufficient landbank is already present at the time a decision is taken. The demonstration that capacity constraints are likely to occur and that these would adversely affect the maintenance of steady and adequate supplies of local aggregates, is one such circumstance. Particular attention in this instance would need to be given to the realistic prospect that the 10-year rolling average of annual aggregate sales would be achieved under prevailing capacity conditions.
226. Another valid circumstance is the impact of any potential increase in demand for local aggregates on the maintenance of minimum landbank levels over the remainder of the plan period. Increased demand may risk a more rapid depletion of affected landbanks and thus reduce the ability to maintain steady and adequate supplies. Relevant evidence concerning this matter might include any alternative trend in demand as observed using the 3-year rolling average annual sales set out within the Gloucestershire LAA; and recent local housing permissions or other growth and new development data.

Different forms of allocations for future aggregate working

227. In line with national policy and planning practice guidance different forms of allocation have been employed under policy MA01. Allocations that are

categorised as Specific Sites are most likely to be worked during the plan period. They should comprise of viable resources; a landowner(s) willing to allow future mineral working to take place; and have a reasonable prospect of being found acceptable in planning terms.

228. The plan contains one Specific Site (MLP Allocation 06: Manor Farm, Kempsford). This entire site is subject to a detailed planning proposal for sand & gravel aggregate working, which has already been scrutinised by the MPA. At present a council resolution has been passed in support of a recommendation to conditionally approve the proposal subject to the satisfactory completion of a legal agreement⁸⁵.
229. Designating Preferred Areas represent a less certain option than Specific Sites. There are likely to contain minerals resources over closely defined areas and planning permission might reasonably be anticipated. All the Preferred Areas have a reasonable prospect of coming forward at some stage during the plan period. Six allocations have been identified as Preferred Areas in the plan. In defining these allocations evidence was sought concerning: - the presence of workable mineral resources; operator interest; the views of landowners regarding future working; and the identification of potential planning issues, opportunities and constraints.
230. Areas of Search are the least certain type of allocation, but proposals within them may prove to be acceptable. There are three Areas of Search allocated in the plan. Whilst there is some knowledge of mineral resources and some previous interest expressed by influential stakeholders, none of the allocations presently have the same level of industry interest as expressed with the designated Preferred Areas or Specific Site included in the plan.

Future aggregate working outside of allocations

Reasoned justification

231. Allocating land as a means of making provision of aggregates is the preference of national policy⁸⁶. Planning practice guidance also advises that the alternative – policies setting out of assessment conditions (i.e. the criteria-based approach) should be an exceptional circumstance⁸⁷.

⁸⁵ Planning Search Reference 13/0097/CWMAJM: - Extension of sand and gravel extraction operations including the retention of all existing site administration, processing and access facilities, with restoration of the extension and existing site to agriculture and species rich grassland using imported inert materials to recreate the original land form at Manor Farm Quarry, Washpool Lane, Kempsford, Gloucestershire, GL7 4NJ

⁸⁶ National Planning Policy Framework (NPPF) section 13, paragraph 145, bullet points 3

⁸⁷ Planning Practice Guidance (PPG) – minerals section, paragraph: 008, reference ID: 27-008-20140306

232. However, there are examples where mineral working outside of allocations may reasonably come forward and also be broadly acceptable. This includes prior-working of aggregate bearing land to avoid its needless sterilisation by other development, (see policy MS01); or relatively small-scale residual working of aggregates related to an existing permitted site.
233. Furthermore, allowing for aggregate working outside of allocations provides a degree of flexibility to adapt to changing circumstances. A function that is supported by national policy⁸⁸. Enabling aggregate working in this manner could reduce possible risks to sustaining steady and adequate aggregate supplies over the plan period, particularly where provision from within allocations cannot be satisfactorily secured.

Policy MA02 | Aggregate working outside of allocations

Minerals development proposals for aggregate working outside of allocations will be permitted only where it can be demonstrated: -

- **the plan's allocations as set out in policy MA01 are not able to contribute towards maintain minimum landbank levels in accordance with policy MW01; and / or**
- **constraints on the availability of existing permitted reserves and / or productive capacity are likely to limit output or restrict the range of available products over the plan period; and / or**
- **they represent the residual working of an area of mineral resource that is permitted or planned to be worked and would otherwise be impractical to exploit in any other way; and / or**
- **they will facilitate enhancements to previously approved plans for mineral restoration and the achievement of beneficial after-uses that will outweigh the desirability to restrict working from outside of allocated areas; and / or**
- **they will facilitate the working of minerals prior to non-minerals development taking place in accordance with policy MS01.**

Linked to the delivery of plan objectives – RM and PS, RA

⁸⁸ National Planning Policy Framework (NPPF) – paragraph 14, bullet point 2

Interpretation and implementation

234. Policy MA02 establishes the circumstances under which aggregate working outside of allocations may prove to be acceptable. Its main focus is on ensuring proposals will be beneficial, either in terms of supporting aggregate provision, the efficient and effective working of resources and / or maximising opportunities to achieve betterment through the restoration of mineral sites.
235. Making provision for steady and adequate supplies of aggregates is a main objective of the plan. However, circumstances may arise where remaining reserves and potential resources contained within the plan's allocations are unable to support necessary provision requirements throughout the remainder and at the end of the plan period. This may be a reasonable justification to allow aggregate working from outside of allocations.
236. Any proposals reliant upon this circumstance will need to show how a contribution will be made to maintaining steady and adequate supplies of aggregates. This may be in respect of demonstrating how the relevant landbank will be sustained at or above the minimum level; or prevented from worsening where it has already been breached.
237. Alternatively, evidence that shows the 10-year rolling average of annual aggregate sales would not be achievable under prevailing capacity conditions, or that local sources of a particular aggregate product have significantly diminished or are due to shortly, will also be relevant.
238. Aggregate working outside of allocations, which represents residual working, will need careful consideration. Proposals will be assessed with regards to their size, scale and timeframe compared to the characteristics of the existing aggregate working site it relates to. Ensuring that mineral working will not be excessively extended will be critical factor. Furthermore, previously approved mineral site restoration must not be unduly inhibited. Although, where revised mineral restoration is presented, this must be acceptable in principle and offer demonstrable benefits with regard to future land use opportunities.
239. The prospect of the sterilisation of aggregates by non-minerals development may also act as a reasonable justification to allow mineral working outside of allocations. It should be given some weight when assessing submitted feasibility studies in line with the requirements of policy MS01 (Non-minerals development within MSAs).

Detailed development requirements

240. Detailed development requirements for all of the plan's allocations are set out Appendix 6 of the plan.
241. For each plan allocation a profile has been generated. This includes a site map that incorporates key geographic information and other relevant minerals planning data such as the presence of existing permitted mineral workings, other future allocations contained in plan, and the proposed areas for mineral working contained within other adopted or emerging mineral plans for neighbouring areas. The district and parish that contains each allocation, the aggregate mineral resource type, current predicted yields, and an estimated site area have also been provided.
242. Site boundaries have been delineated for all of the allocations. These represent the maximum extent for which a proposal would be considered against policy MA01. Any proposal that extends beyond a site boundary would also need to be assessed against policy MA02.
243. As previously stated, allocating land for future aggregate working does not guarantee a planning permission will be granted when minerals development proposals are brought forward. However, the plan's allocations do present a broad view upon suitability through location-specific issues, particularly when considered alongside other relevant remaining policies contained within the plan.
244. For each allocation a number of location-specific issues have been identified. To assist those involved with reviewing issues individually or collectively, a standard table format has been applied. This sets out three items – general theme; detail of the specific issue / requirement; and link to the relevant policy and objective(s) of the plan.
245. The information that comprises the location-specific issues was correct at the time the plan was being prepared. Nevertheless, circumstances can change and unforeseen environmental and other complications and / or opportunities may present themselves. It will be at the detailed planning application stage that the significance of any additional or changed matters will need to be very carefully investigated to determine how they should be taken into account.

Section 10 | Development Management

Defining minerals development

246. Minerals development consists of a range of processes and activities that vary depending upon the mineral resources being worked and the type of products being supplied. However, commonly it is used to describe the working of minerals, which involves up to four phases –

- Exploration to prove the existence, extent and economic viability;
- Preparation of land to make minerals accessible;
- The removal of minerals from the ground and processing to support the creation of a saleable product; and
- The restoration of the sites once the working of minerals has ended and the maintenance of the site known as aftercare, for a period of time afterwards.

247. In addition, the installation and operation of ancillary buildings and ‘added value’ plant for the purpose of manufacturing saleable mineral products and other supportive infrastructure (e.g. haul roads, on-site renewable energy generation etc...), which are demonstrably linked to the functions of mineral working fall under the same development type.

248. All other development activities subject to the planning system are not considered to be minerals development and therefore not subject to determination by the Minerals Planning Authority (MPA). In Gloucestershire, the City, Borough and District Councils in their capacity as Local Planning Authorities (LPAs) or the County Council in its capacity as the Waste Planning Authority (WPA) may be an appropriate, alternative local decision maker.

249. Policies contained in Minerals Local Plan for Gloucestershire would only be relevant with non-minerals development in specific circumstances. This may include where a risk of mineral sterilisation or hindrance to mineral operations is present (policies MS01 and MS02); or through the safeguarding of mineral infrastructure (policy MS03).

Permitted development rights

250. The Town & Country Planning (General Permitted Development) Order (GPDO) 2015 sets out a number of ‘permitted development rights’ that enable certain

operations and activities to take place without the need for planning permission⁸⁹. For mineral developments, this covers the installation, expansion, alteration and repair of plant and machinery and other structures of a certain size and scale; tipping of mineral site wastes; and short-term, time-restricted drilling of boreholes, seismic surveying and related excavations.

251. During the process of determining mineral development proposals, the MPA may seek to remove future permitted development rights from site operators. This is achievable through the use of planning conditions. It will usually only be considered where future permitted development could unbalance assessed impacts and / or prejudice any approved mitigation measures, thus risk causing adverse affects to create unacceptable harm.
252. The GPDO 2015 also gives MPAs the opportunity to remove some permitted development rights outside of the consideration of a planning application. This is known as an Article 4 Direction. It may be relevant to parts of Gloucestershire, where a lack of restriction may unacceptable increase the risk of harm to sensitive locations such as the Cotswolds, Wye Valley and Malvern Hills AONBs or Sites of Special Scientific Interest (SSSIs). The desirability or otherwise of proposing Article 4 Directions over the plan period will be kept under review and will be considered with regard to the scale and significance of future mineral development proposals within and / or close to sensitive locations.

Preparing applications for mineral development

253. Before any decision is taken to submit a planning application for minerals development, prospective applicants will need to review the Gloucestershire County Council's Local Validation Checklist⁹⁰. This sets out the range of information needed in order to effectively assess planning proposals. The checklist includes both compulsory 'national' standard requirements applicable to all applications and 'local' requirements that relate to particular circumstances covered by relevant local development plan policies that are in force across the county
254. A vital part of the decision making process is the consideration of potential impacts arising from proposed minerals development. As a result, applicants should complete necessary impact assessments, provide an analysis of their findings, and then report upon potential means of avoiding impacts or deliverable mitigation measures. All relevant information should be provided alongside the

⁸⁹ Part 17 of the Town & Country Planning (General Permitted Development) Order 2015 covers matters relating to mining and mineral exploration. The entire order can be viewed on-line at: - http://www.legislation.gov.uk/uksi/2015/596/pdfs/uksi_20150596_en.pdf.

⁹⁰ The most recent version of the Gloucestershire County Council Local Validation Checklist can be obtained online at: - <http://www.gloucestershire.gov.uk/CHttpHandler.ashx?id=22934&p=0>

submission of a planning application. Failure to do so may dramatically increase the risk of a proposal being refused planning permission.

255. To support prospective applicants, Gloucestershire County Council operates a Pre-application Planning Advice Service⁹¹. This seeks to offer advice on a range of matters such as the different types of document that may be needed to support any subsequent planning application; the scale and nature of any technical advice that might be needed from specialists; and to outline potential planning matters and issues that could arise with an emerging proposal. The advice provided arises from council officers and is given in good faith and to the best of ability and experience, without prejudice to the formal consideration by the MPA of any future planning application. The service operates under a standard charging regime, which is kept under review and revised from time to time⁹².
256. Where significant effects upon a local area are anticipated, there is an expectation that prospective applicants will also engage with local communities prior to submitting a planning application. This approach is supported by the Gloucestershire Statement of Community Involvement (Glos-SCI), which offers advice as to how best to undertake pre-application engagement and illustrate how findings would have been taken into account should any subsequent planning application be submitted⁹³.

Environmental Impact Assessment (EIA) requirements

257. Planning applications must be screened as part of the Environmental Impact Assessment (EIA) process to determine whether or not they require an Environmental Statement. This is required by EU and UK law. The screening and subsequent scoping processes help to identify whether a proposal is likely to have significant environmental effects, and if so, an Environmental Statement (ES) must accompany any submitted planning application.
258. Proposals falling within Schedule 1 of the EIA Regulations must be accompanied by an ES. Proposals under Schedule 2 may require an ES depending on individual circumstances usually relating to the type, scale and location of the development. An ES should identify the likelihood of significant impacts occurring. It should also show how these impacts can be avoided, mitigated and compensated for, and consider alternative ways the development might be

⁹¹ Details of the Gloucestershire County Council Pre-application Planning Advice Service can be obtained online at:-

<http://www.gloucestershire.gov.uk/article/120269/Pre-application-planning-advice>

⁹² Fees for advice sought through Gloucestershire County Council Pre-application Advice Service came into force on 1st January 2016. They are reviewable via relevant GCC guidance that can currently be obtained at:-

<http://www.gloucestershire.gov.uk/CHttpHandler.ashx?id=65190&p=0>

⁹³ The 1st Review Gloucestershire Statement of Community Involvement (SCI) (Adopted 2013) can be obtained online at:-

<http://www.gloucestershire.gov.uk/extra/CHttpHandler.ashx?id=56308&p=0>

carried out. It should be noted that minerals working can often fall under Schedule 2 and sometimes Schedule 1 for larger scale development.

Development management – considering applications for minerals development

259. A key function of a local MPA is to effectively assess and determine planning applications for future minerals development. This function is known as Development Management.
260. All mineral developments within Gloucestershire that require planning permission must be determined in accordance with the policies contained within the Minerals Local Plan for Gloucestershire once it has been formally adopted unless material considerations indicate otherwise. This is a core convention of the English planning system enshrined in planning law⁹⁴.
261. Consequently, the effective delivery of development management will be fundamental to realising the expectations of the plan, particularly in ensuring future proposals are contributing to the achievement of sustainable development – national government's ambition for planning⁹⁵. The objectives that sit behind the Minerals Local Plan for Gloucestershire, which themselves are a local measure of sustainable development, should be given specific attention. To assist with such assessments, all development management policies continue to use the specific link back to the requisite objectives of the plan.
262. The consideration of the plan's development management policies must be undertaken in conjunction with a review of other relevant thematic mineral policies contained elsewhere in the plan (see sections 6,7,8,9 and 11). This is to ensure proper account has been given to all local policy matters affecting a particular proposal.
263. The remainder of this section provides a full and comprehensive suite of development management policies relevant to future mineral development proposals within Gloucestershire. It incorporates full policy details and local guidance to assist prospective applicants in their initial appraisal, preparation, design and subsequent submission of planning applications. The supporting text for each policy covers both a reasoned justification for its inclusion in the plan and important information relating to implementation and interpretation.
264. The order in which the policies have been presented is designed to aid those using the plan. It is reflective of how often the matters contained within the

⁹⁴ Established under Section 38(6) of the Planning and Compulsory Purchase Act 2004 and Section (70(2) of the Town and Country Planning Act 1990

⁹⁵ National Planning Policy Framework (NPPF) paragraphs 6-10 set out the terms under which the delivery of the planning system can demonstrably achieve sustainable development. The focus is on ensuring the integrated delivery of its three dimensions – economic, social and environment through three consequential roles to be performed by the planning system.

policies have been assessed within planning application for minerals developments over the recent past. The ordering of policies is not representative of their relative importance within the plan.

Amenity

Reasoned justification

265. Minerals can only be worked where they occur, which could potentially lead to developments being located near to residential properties, business premises, and / or places that offer recreation and leisure activities.
266. Amenity impacts can include noise; air pollution usually resulting from fumes and / or dust; vibration; and visual intrusion, incorporating light pollution and privacy. The nature and scale of these impacts may vary in significance depending on the activities taking place at a site and the relationship to nearby land uses. Other influences could include the type of mineral being worked; the nature of ancillary saleable products being produced; or phase of development (e.g. site preparation, working of minerals, implementing restoration etc.).
267. Future mineral developments should seek to avoid creating adverse impacts wherever possible. The health, quality of life and well being of local communities – including the economic prosperity enjoyed by existing local businesses, should be safeguarded where they could be put at risk. If this is not achievable, all unavoidable adverse impacts must be effectively controlled so as not to breach acceptable levels.

Policy DM01 | Amenity

Minerals development proposals will be permitted only where it can be demonstrated that unacceptable adverse impacts on the amenity of local communities within Gloucestershire and those of neighbouring administrative areas by means of noise, air pollution, vibration and visual intrusion, can be avoided and / or satisfactorily mitigated.

Linked to the delivery of plan objective – LC

Interpretation and implementation

268. For the purposes of the plan, residential occupiers and those users of other nearby land uses are described as Gloucestershire's local communities. A local

community could be quite small in number and homogeneous, representing a tight group of local residents. It could however, incorporate a large and diverse group of residents, visitors, customers, business owners and employees loosely unified by their location and potential sensitivity to future minerals development. Nevertheless, the health and well-being, and quality of life enjoyed by all, is critical in assessing acceptable levels of amenity.

269. Local mineral liaison groups that bring together mineral operators, local community representatives and the County Council as the MPA may prove to be a valuable tool in effectively managing relationships. They provide an opportunity to discuss concerns about current and proposed minerals development and to arrive at potential workable solutions. Mineral liaison groups have been set up at several working quarries in Gloucestershire and remain active in contributing to the ongoing management of existing mineral developments.
270. In preparing planning applications for minerals development proposals, there is an expectation that applicants will investigate and identify potential amenity impacts. They will also need to show how routine monitoring of any impacts highlighted will take place through an agreed monitoring programme, which must be submitted and be subjected to scrutiny before any decisions are made. In support of this approach, the carrying out of a Health Impact Assessment (HIA) may be particularly useful where significant impacts might arise⁹⁶.
271. Detailed matters covering the different amenity impacts highlighted under policy DM01 are set out in the following paragraphs: -

Noise

272. Minerals developments may generate noise from a variety of different activities and operations. These can include preparing the land for mineral working (e.g. soil stripping), the working of minerals, moving materials around the site, processing, as well as on and off site transport.
273. The prevention of noise impacts from occurring at source should be the aim of all minerals developments. However, where noise impacts are unavoidable, they should be appropriately mitigated so as to achieve acceptable levels. In determining the use of noise limits, consideration will be given to the scale, duration, hours of operation, and type of activities proposed; and whether they are likely to be temporary or continuous. All noise limits must be appropriate and proportionate. Planning practice guidance sets out detailed requirements for considering noise impacts including the need to prepare a Noise Impact

⁹⁶ Planning Practice Guidance (PPG) health and well-being section, paragraph: 004, reference ID: 53-004-20140306

Assessment (NIA). In particular this should provide sufficient detail from which an appropriate noise limit can be established through conditions⁹⁷.

Air pollution – fumes, odour and dust

274. Mineral developments can impact upon local air quality, often through emissions caused by on-site operations (e.g. working of minerals and processing) and vehicle movements on and off-site. They may involve chemical pollutants and dust and can sometimes generate unpleasant odours.
275. In determining air quality impacts, consideration will be given to current air quality levels prior to development, whether new sources of air pollution are likely to be created and their influence on air quality, and the impact on air quality levels from changes in local traffic linked to minerals development both near to the site and / or further afield along defined freight routes. Account will also be given to the scale, duration, hours of operation, and type of activities proposed; and whether they are likely to be temporary or continuous. In addition, the ability to protect or enhance safeguards already afforded to environmental assets, particularly designated nature sites will be a contributing factor.
276. In the case of dust-related emissions appropriate mitigation standards must be in place throughout the lifespan of the operation. Technical advice on how dust emissions should be handled is provided within planning practice guidance⁹⁸.
277. Air quality in general across Gloucestershire is regarded to be within acceptable levels, although some local air quality issues exist, often attributable to road transport. Exceeding acceptable levels of nitrogen dioxide and air particles has led to several local Air Quality Management Areas (AQMAs)⁹⁹ being declared across the county. The effect on local AQMAs by minerals development will be an important consideration when determining air quality impacts. This is an approach supported by planning practice guidance¹⁰⁰.
278. Mineral developments must not compromise efforts to positively contribute towards the achievement of national air quality objectives and the European directive and target values concerning the protection of human health¹⁰¹.

⁹⁷ Planning Practice Guidance (PPG) mineral section, paragraph: 019, reference ID: 27-019-20140306, paragraph: 020 reference ID: 27-020-20140306, and paragraph: 021, reference ID: 27-021-20140306

⁹⁸ Planning Practice Guidance (PPG) assessing environmental impacts from mineral extraction section, paragraph: 023, reference ID: 27-019-20140306

⁹⁹ DEFRA publishes data on declared Air Quality Monitoring Areas (AQMAs) across the country, including across Gloucestershire - <http://uk-air.defra.gov.uk/aqma/>

¹⁰⁰ Planning Practice Guidance (PPG) air quality section, paragraph: 002 Reference ID: 32-002-20140306

¹⁰¹ Details covering the UK's and EU Air Quality Limits are reviewable via the DEFRA website at:- <http://uk-air.defra.gov.uk/air-pollution/uk-eu-limits>

Planning practice guidance provides details of the scope for assessing air quality impacts in general¹⁰².

Vibration

279. Vibration linked to blasting operations is a largely a concern of Gloucestershire's hard rock mineral sites, where crushed rock aggregate is produced. The effects associated with blasting can include ground vibration, air overpressure and projected rock particles. The scale of Impacts is dependent on the type and quantity of explosives, degree of confinement, the distance to the nearby development, underlying geology and surrounding topography and atmospheric conditions.
280. Where the risk of vibration impacts is present, avoidance of these impacts should be sought. In the case of blasting, this may be achieved by adopting alternative working techniques¹⁰³. However, if it is practicably unavoidable, blasting operations should be carefully designed so that the number of blasts and quantity of explosives are kept to a minimum. Specific limits and controls may be necessary to protect surrounding areas and nearby land uses that may be particularly sensitive to vibration.

Visual Intrusion – visual impacts, light pollution and privacy

Visual impact

281. The scale and significance of visual impacts is normally defined through an assessment of publicly accessible viewpoints. Of critical importance is the identification of nearby receptors (e.g. residential properties, places of work, visitor attractions etc.) and the degree of adversity that might present itself. Visual impact will be reviewed against relevant components of a minerals development such as the evolving nature of the site landform; the approach to screening, including management of any retained features; site layout; access arrangements; height and design of any built structures and machinery; and the planned programme of restoration. The likely effectiveness of any proposed mitigation will be of the upmost significance. All proposals should be

¹⁰² Planning Practice Guidance (PPG) air quality section, paragraph: 007, reference ID: 32-007-20140306

¹⁰³ 'Ripping' is an established alternative to blasting. It is a means of achieving the mechanical breakage of rock. A common method includes the use of a bulldozer fitted with a tooth at the rear. Where secondary fragmentation is deemed necessary, alternatives to blasting could involve the use of a steel drop ball or pneumatic / hydraulic impact breakers. Minerals development proposals may be required to demonstrate why these types of alternative options are not possible as part of their justification for the need to carry out blasting.

accompanied by an appropriately detailed visual impact assessment that is often incorporated within a wider study including a landscape strategy¹⁰⁴.

Light pollution

282. Mineral developments can generate light pollution where operations take place early in morning, into the evening and / or at night. Unacceptable levels of light pollution can adversely affect the quality of life and well being of local communities and the enjoyment of the natural environment. There may also be potential impacts to biodiversity and in particular feeding bats. As a result light impacts from artificial lighting must be controlled so as not to breach acceptable levels. Particular attention will need to be given to the positioning, height, alignment, intensity and proposed period of use. Planning practice guidance considers the effective assessment of light pollution and relevant factors for review through the planning system¹⁰⁵.

Privacy

283. The siting of mineral developments in relation to neighbouring properties could result in the loss of privacy, usually through overlooking. Loss of privacy will normally be measured against the amount of private space afforded to residential properties likely to be adversely affected. The disruption caused to the enjoyment of habitable rooms within the main dwelling house and any immediate garden space will represent the starting point for defining private space that may be impacted¹⁰⁶. Nevertheless, assessments of this nature must be carried out on a case-by-case basis. The entire curtilage of a dwelling house may not always be a reasonable and proportionate definition of private space for determining whether a loss of privacy will occur.

¹⁰⁴ Planning Practice Guidance (PPG) minerals extraction section, paragraph: 059, reference ID: 27-059-20140306

¹⁰⁵ Planning Practice Guidance (PPG) light pollution section, paragraph: 001, reference ID: 31-001-20140306

¹⁰⁶ A habitable room is normally defined as being a bedroom; living room; kitchen; dining room; study / home office; and / or a child's play-space. It is not usual to apply the same definition to a hallway; stairwell; passageway; or utility room.

Cumulative Impact

Reasoned justification

284. The cumulative effect from mineral developments can give rise to challenging impacts, which may prove to be unacceptable. Cumulative impacts can result from multiple activities taking place on a single site and / or as a result of a combination of activities across several mineral development sites. It may also arise from intensified development generally across a locality – even beyond the administrative area of Gloucestershire.

Policy DM02 | Cumulative Impact

Minerals development proposals will be permitted where it can be demonstrated unacceptable cumulative impacts will not be generated from: -

- **Within the mineral site for which a proposal is located; and / or**
- **A number of minerals and non-mineral developments being concentrated in a locality.**

Linked to the delivery of plan objectives – LC, ENV and MM

Interpretation and implementation

285. National Policy specifically identifies the potential for harm from the cumulative effects of minerals development. It is expected that all potential cumulative effects are appropriately assessed to ensure any unacceptable adverse impacts on natural and historic environments and human health will not transpire¹⁰⁷. It also states that new development must not create severe cumulative impacts on the transport network¹⁰⁸.

286. All minerals development proposals will be expected to identify potential cumulative impacts and to show how these will be avoided or sufficiently mitigated to prevent unacceptable impacts from arising. In respect of cumulative impacts related to intensified development across a locality, the parameters for this will need to be agreed on a case-by-case depending upon prevailing environmental conditions and geography, the scale of development proposed

¹⁰⁷ National Planning Policy Framework (NPPF) section 13, paragraph 143, bullet point 6.

¹⁰⁸ National Planning Policy Framework (NPPF) section 4, paragraph 32, bullet point 3.

and the nature of the individual matter of concern subject to a cumulative impact assessment.

287. It may be justified to impose planning conditions to limit activities by way of operating hours or levels of production on monthly or annual basis in order to make proposals acceptable in planning terms. Other specific policy requirements contained within the plan may also have a role in avoiding or minimising cumulative impacts. An example of this is policy MR01 (Restoration, aftercare and facilitating beneficial after-uses), where phased working and progressive restoration techniques are preferred. Under these circumstances the principle that underpins policy DM02 should be adhered to.
288. Where cumulative impacts cannot be mitigated to an acceptable level, mineral development proposals must be able to demonstrate how the benefits of the development may outweigh any harm caused. Although, even under these circumstances, mitigation measures should still be applied to reduce impacts as far as is practicably possible.

Transport

Reasoned justification

289. Mineral developments are heavily dependent on Gloucestershire's highway networks, which provide access for staff and customers, and for hauling minerals to markets or for further processing. The county's mineral supplies are predominately local in nature and follow well established routes that are strongly aligned with the existing road infrastructure. This presents very limited opportunities for more sustainable modes of transport such as rail, ports or other inland waterways to attract the necessary interest and much needed investment to act as a viable alternative. Nevertheless, Gloucestershire still contains numerous rail links, navigable waterways and canals with potential that under the right circumstances could be used as an alternative to the movement of minerals by road.
290. It is vitally important Gloucestershire's roads are enabled to function in as an efficient and effective manner as possible. The management of traffic is vitally important to this fundamental aim. For new mineral development proposals, the generation of new or additional vehicle movements must not result in unacceptable adverse impacts on the county's highway networks.
291. Avoiding the creation or exacerbation of transport impacts through new development will always be the preferred approach and wherever possible efforts should be made to minimise the amount of road miles travelled. Not only will this reduce the potential for adverse impacts to occur, but it will also contribute towards wider national transport policy ambitions – such as reducing the need for travel by significant road users¹⁰⁹ and helping to curb greenhouse gas emissions from freight¹¹⁰.
292. Mineral developments can also affect other transport infrastructure such as the Public Rights of Way (PRoW) network. Wherever reasonable and practicable, this network should be retained and its safety, function and enjoyment preserved.

¹⁰⁹ National Planning Policy Framework (NPPF) section 4, paragraph 34

¹¹⁰ Government Freight Policy – <https://www.gov.uk/government/policies/freight>

Policy DM03 | Transport

Alternatives to road transport

Minerals development proposals will be permitted that use alternative modes of non-road transport.

Highway Network

Minerals development proposals will be permitted where it can be demonstrated: -

- **Unacceptable adverse impacts on road safety and the capacity and function of the strategic and local highway networks will be avoided; and / or**
- **Satisfactory mitigation measures will be put in place to ensure unavoidable adverse impacts on road safety and the capacity and function of the strategic and local highway networks will not be severe.**

Public Rights of Way (ProW) Network

Minerals development proposals will be permitted where it can be demonstrated: -

- **Public rights of way routes will be retained and unacceptable adverse impacts will be avoided or satisfactory mitigated; and / or**
- **The temporary or permanent diversion of public rights of way routes are justified and changes will not cause unacceptable adverse impacts on the safety, integrity and enjoyment of affected routes; and / or**
- **The formal closure of public right of way routes represents a very exceptional circumstance where replacement routes are no longer required and that unacceptable adverse impacts on the wider public rights of way network will be avoided.**

Minerals development proposals affecting National Trails will be permitted only where adverse impacts are avoided or satisfactory mitigated.

Linked to the delivery of plan objectives – MM

Interpretation and implementation

Transport Network

293. Avoiding adverse impacts on Gloucestershire's local and strategic highway networks is the preferred solution with new mineral developments. Minimising the amount of vehicular movements linked to a proposal site could be a means of accomplishing this, which is also supported by national policy¹¹¹. Ideally using existing transport infrastructure that supports non-road modes of transport such as rail and inland waterways within and beyond the county, and port facilities for more strategic journeys, should occur wherever possible. However, where any additional infrastructure is needed to enable and / or, which will support the viability of using non-road modes of transport this will need to be acceptable in planning terms.
294. Non-road haulage of minerals is limited within the county due to the reasons discussed both in the spatial portrait and reasoned justification for the policy. Nevertheless, at the local level preference should still be given to on-site processing rather than exporting raw material to other facilities, using conveyor belts and pipelines, or constructing internal haul roads. Although careful consideration must be given to other planning matters such as avoiding unacceptable amenity impacts.
295. For new minerals development proposals that use the local and / or strategic highway network, the potential for adverse impacts arising must be carefully scrutinised. National policy provides a clear threshold in this respect, focused on ensuring severe impacts on the highway network is prevented¹¹². Particular issues likely to be scrutinised include: - network capacity; maintenance, safety of road users, debris on the highway and related amenity impacts such as noise, dust, vehicular vibration, and air and water pollution. These impacts may be of significance to a variety of sensitive receptors located along mineral haulage routes and not just those local communities that are close by to the proposal site.
296. Attention should also be given to other related policies set out in the plan such as policies DM01 and DM05 concerned with amenity and water quality impacts respectively. Policy DM02 may also require consideration where cumulative impacts are likely to be present.
297. In addition, opportunities to reduce impacts on the highway networks resulting from staff / and or site visitors should be investigated, particularly where this may contribute to the delivery of other cycling and walking initiatives.

¹¹¹ National Planning Policy Framework (NPPF) section 4, paragraph 35

¹¹² National Planning Policy Framework (NPPF) section 4, paragraph 32, bullet point 3

Highways-related requirements with minerals development proposals

298. The Local Highway Authority (LHA) and / or Highways England (HighE)¹¹³ – who are responsible for stretches of the strategic road network (SRN) within Gloucestershire, should be contacted by prospective applicants for minerals development, where highway networks could be affected. This will help to establish as early as possible whether a Transport Assessment (TA) or Transport Statement (TS) is needed and what will be required as part of any subsequent highway assessment¹¹⁴.
299. In the event potentially unacceptable adverse impacts are identified, information as to how these will be made acceptable will be critical. Mitigation measures to this effect might include specific infrastructure improvements or financial contributions towards work to the highway network. Physical schemes may incorporate junction improvements and management, road widening along stretches of the highway, increasing visibility around site access and / or the construction of new accesses or junctions.
300. For proposals likely to affect existing freight movements and / or generate additional movements on the county's roads, it is preferable that proposed freight routes consult the Gloucestershire Freight Gateway¹¹⁵.
301. Route management plans that formally designate freight routes for mineral developments may also be sought, particularly where more sensitive sections of the highway could be exposed to minerals-related traffic such as HGVs or ELVs (Extra Long Vehicles). Critical to any new designated route will be the ability to maintain highway safety, and avoid environmental damage and / or loss of amenity for local communities. Sensitive receptors should be safeguarded to prevent unacceptable harm from occurring.
302. Small and ordinarily unsuitable local roads should also be avoided wherever practicable. The acceptability of local roads to accommodate minerals-related traffic will be judged on a case-by-case basis.

PRoW network

303. In the case of the PRoW network, minerals developments should seek to avoid adverse impacts from occurring. Retaining accessibility and usability should be seen as the priority. However, for health & safety and security reasons

¹¹³ As of April 2015 the Highways Agency (HA) was replaced by Highway England (HighE) under provisions set out in the Infrastructure Act 2015. HighE is described as an 'arm-length government company' with responsibility for the managing the Strategic Highway Network (SRN) covering England, which was previously managed by the HA. <https://www.gov.uk/government/news/highways-england-to-take-over-motorways-and-major-a-roads>

¹¹⁴ Planning Practice Guidance (PPG) transport assessments and statements section, paragraph: 013, reference ID: 42-013-20140306 offers advice to LPAs as to the sort of criteria that should apply in determining the need for a TA or TS.

¹¹⁵ The Gloucestershire Freight Gateway System can be assessed at: - <http://www.gloucestershire.gov.uk/freight-gateway>

proportionate restrictions or diversions of a temporary or permanent nature may necessary.

304. Minerals development proposals affecting the PRoW network will need to establish the anticipated scale of any envisaged impacts upon individual designated routes. All associated details (e.g. diversions) will need to be fully detailed and justified. Local advice should be obtained as early as possible from the LHA in respect of this matter. Where opportunities to enhance the network exist, which could involve the creation of additional links, this may be viewed as a relevant factor in determining the acceptability of proposals¹¹⁶.
305. The presence of National Trails (NTs) should be seen as a potentially significant constraint upon new minerals development. Unless a strong justification can be given, established NT routes must not be adversely affected including any diversions.¹¹⁷

Flood Risk

Reasoned justification

306. The threat of flooding is present across many parts of Gloucestershire. Significant recent flooding events have highlighted the need to be better prepared and for greater resilience¹¹⁸. Over the coming decades the risk of flooding is set to rise caused by increasing demands upon land from growing populations and climate change. Gloucestershire is expected to see greater fluctuations in weather patterns with wetter winters, periods of prolonged drought and more severe, extreme wet weather events at other times of the year¹¹⁹.
307. Mineral developments could adversely affect flood risk, but may also have a positive impact and help to mitigate future flooding events. Sand and gravel working is singled out specifically as a potential water-compatible land use within planning practice guidance¹²⁰. However, in general mineral developments will still require careful consideration to determine their impact upon flood risk particularly in areas vulnerable to flooding.

¹¹⁶ National Planning Policy Framework (NPPF) section 8, paragraph 75

¹¹⁷ There are three designated national trails that run through parts of Gloucestershire – the Cotswold Way, Offa's Dyke Pathway and Thames Path. More details setting out the specific routes and other details can be found at: - <http://www.nationaltrail.co.uk/>

¹¹⁸ In 2007 and 2012 Gloucestershire was subject to significant levels of flooding. The 2007 event in particular affected 5,000 residential properties, 500 non-residential premises and left 135,000 people without water for up to 2 weeks.

¹¹⁹ Extracted from the summary conclusions of the Gloucestershire County Council Corporate Climate Change Strategy & Action Plan (2008/09 – 2011/12) – *Responding to Climate Change*. This document can be viewed at: - <http://www.gloucestershire.gov.uk/CHttpHandler.ashx?id=30432&p=0>

¹²⁰ Planning Practice Guidance (PPG) flood risk and coastal change section, Flood Zone and Flood Risk Tables, Table 3: Flood risk vulnerability and flood zone 'compatibility'.

Policy DM04 | Flood Risk

Minerals development proposals classified as 'Less Vulnerable' and subject to the Sequential Test will be permitted in Flood Zones 1, 2, 3a where it can be demonstrated, if necessary, through an acceptable Site-Specific Flood Risk Assessment (FRA) that the risk of flooding from all potential sources will not increase.

Minerals development proposals within Flood Zone 3b (the functional floodplain) will only be permitted where they have been subject to the Sequential Test, are classified as 'Water-Compatible' development, and can demonstrate through an acceptable FRA there will be: -

- **No net loss in floodplain storage capacity;**
- **No impediment to water flows; and**
- **No increase in flood risk elsewhere.**

Linked to the delivery of plan objectives – LC and ENV

Interpretation and implementation

308. Avoiding development, within areas of highest risk of flooding is a national planning objective. It is delivered through the use of a sequential test that aims is to steering development towards areas with the lowest probability of flooding, taken account of a number of exceptions¹²¹.

309. Nevertheless, the fact minerals can only be worked where they occur and future working could prove important in delivering other national policy objectives will need to be taken into account in judging the outcome of any sequential test.

310. The Gloucestershire Strategic Flood Risk Assessment (Glos-SFRA) provides detailed guidance on the application of the sequential test at the local level¹²². This is a crucial planning document that is fundamental to implementing policy DM4.

311. Surface Water Management Plans (SWMPs) have been prepared for parts of the county¹²³. These provide enhanced information to that contained within the

¹²¹ National Planning Policy Framework (NPPF) section 10, paragraph 100.

¹²² The Gloucestershire Strategic Flood Risk Assessment (Glos-SFRA) Level 1 (*specifically for minerals & waste*) can be obtained at: - <http://www.gloucestershire.gov.uk/extra/CHttpHandler.ashx?id=28388&p=0>

¹²³ A total of 6 location-specific Surface Water Management Plans (SWMPs) have been completed and published by GCC in its capacity as the Lead Local Flood Risk Authority (LLFRA). The areas covered by a SWMP include: - Cheltenham, Tewkesbury, Bishops Cleeve, Southam & Woodmancote, Gloucester, and Churchdown & Innsworth. Gloucestershire's SWMPs can be obtained at: - <http://www.gloucestershire.gov.uk/extra/swmp>

Glos-SFRA and cover the risk of surface water flooding. An updated Flood Map for Surface Water (uFMfSW) has also been collated and published by the Environment Agency (EA)¹²⁴. Information of this nature will be taken into account alongside the Glos-SFRA, where relevant when assessing the flood risk of individual proposals.

312. All mineral developments must show how they will not increase flood risk at their immediate location, elsewhere and also in the future. The design of any built structures, the carrying out of operations linked to the working of minerals, and site restoration, must seek to follow this overarching objective. Ensuring that at least existing flood capacities are maintained and that the effective and appropriate management of surface water run-off will take place represents the minimum acceptable solution. New mineral developments may need to incorporate a sustainable drainage system often referred to as SuDS¹²⁵.
313. Where development could lead to a reduction in flood risk, this matter should not be overlooked. The practice of sequential working of minerals and effective site restoration has the potential to deliver additional flood storage and attenuation over the short and / or long term. Evidence of this nature will be considered as part of the overall planning balance.
314. The MPA will look to the advice of the EA and the County Council through its Lead Local Flood Risk Authority (LLFRA) responsibilities for Gloucestershire, when assessing the significance of flood risk with minerals development. National guidance has been produced setting out standard consultation practice in respect of this matter¹²⁶. However, this guidance does not preclude seeking advice from the EA and / or LLFRA on a case-by-case basis.

Flood risk-related requirements with minerals development proposals

315. All minerals development proposals will need to consider their impact upon flood risk. For those proposals that fall within allocated areas contained within the plan, requirements are set out within section 9 of the plan under the detailed development requirements. Where proposals fall outside of allocated areas a sequential test will be needed as a minimum. Under certain circumstances a site-specific flood risk assessment (FRA) may also be required in order to demonstrate how flood risk will not increase.

¹²⁴Information about the updated Flood Map for Surface Water (uFMfSW) (2013) can be obtained at: -

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/297432/LIT_8988_0bf634.pdf

¹²⁵ SuDS are an acronym of Sustainable Urban Drainage Systems. However, development of flood strategy and policy over the recent years has expanded the practice of apply a SuDS approach. As a result the reference to 'urban' has been largely dropped from general use.

¹²⁶ Department for Environment, Food & Rural Affairs and Environment Agency, Guidance: Flood risk assessment: local planning authorities, (1st published Apr 2015) – <https://www.gov.uk/guidance/flood-risk-assessment-local-planning-authorities>

316. Technical guidance on how best to assess flood risk with planning proposals has been produced jointly by DEFRA and the EA¹²⁷. This sets out the requirements for carrying out an FRA. Thresholds for FRA submissions are specified within national policy¹²⁸. A detailed checklist of minimum FRA requirements has also been included within planning practice guidance¹²⁹.

Water Environment

Reasoned justification

317. Gloucestershire's water resources are widespread and often inter-connected. They cover over 5,000km of surface watercourses and a number of sizeable groundwater aquifers.
318. Several main rivers run through the county – the Severn, Wye, Avon and Thames as do a number of ordinary watercourses. Gloucestershire sites within two nationally recognised river basin areas – the Severn and the Thames¹³⁰. Natural habitats and wildlife areas, including some of national and international importance, are also hugely reliant upon the quality and reliable quantity of Gloucestershire's watercourses.
319. Large areas of Gloucestershire sit above designated Principal and Secondary Aquifers that contribute to drinking water supplies¹³¹. These areas are predominately, but not exclusively found in the south-west of the county, and also contain a number of designated Groundwater Source Protection Zones (SPZs) that highlight sources of public drinking water. The key focus of SPZs is to reduce contamination risk from surrounding activities¹³².
320. In addition, several statutorily and non-statutory Drinking Water Safeguarding Zones (DW-SZs) also exist within Gloucestershire. The EA and water companies target these zones when combating contamination risks and seeking to avoid costly additional treatment and water management infrastructure.

¹²⁷ Department for Environment, Food & Rural Affairs and Environment Agency, National Guidance: Flood risk assessment for planning applications, (Updated Oct 2015) – <https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications>

¹²⁸ National Planning Policy Framework (NPPF) section 10, paragraph 103, footnote 20.

¹²⁹ Planning Practice Guidance (PPG) flood risk and coastal change section, paragraph: 030, reference ID: 7-030-20140306 and paragraph: 031 Reference ID: 7-031-20140306

¹³⁰ England & Wales River Basin Map (Oct 2015) which has been published by EA can be viewed at : -

<https://www.gov.uk/government/publications/river-basin-district-map>

¹³¹ As of April 2010 aquifer designations in the England was re-classified into Principal and Secondary, with further sub-divisions of the Secondary type. This change was to ensure greater consistency with the European Water Framework Directive. Designation is determined by virtue of the importance of the aquifer as a resource for drinking water supplies, supporting surface water flows and wetland ecosystems.

¹³² Detailed groundwater mapping information (Aquifers and Source Protection Zones) for England, including Gloucestershire, can be viewed via the Environment Agency's 'What's In Your Backyard' web-resource at: - <http://apps.environment-agency.gov.uk/wiyby/117020.aspx>

321. Minerals developments have the potential to generate water resource management issues. Mineral working and / or the removal and storage of overburden and soils, and de-watering operations can influence groundwater recharge and depletion rates as well as the dynamic of surface water flows. Often significant volumes of water are required in washing minerals and other processing. The use of industrial machinery and vehicles may also generate potential pollution risks that may affect surface and groundwater resources. Processes for waste water resulting from de-watering processes (such as silt lagoons) can also be a consideration.

Policy DM05 | Water Environment

Minerals development proposals will be permitted where it can be demonstrated that adverse impacts on the quality and quantity of water resources can be avoided and / or satisfactorily mitigated.

Linked to the delivery of plan objectives – LC and ENV

Interpretation and implementation

322. Minerals development proposals must demonstrate how the quality and quantity of water resources will not be adversely affected. Potential adverse impacts must be avoided wherever possible or effectively mitigated both on-site and within the surrounding area. This is a position supported by national policy, which states unacceptable impacts on the flow and quality of both surface and groundwater should not occur¹³³ and that unacceptable risks of contamination must be avoided¹³⁴. The preparation of a hydrogeological assessment offers an opportunity to identify important sensitive water-related receptors with minerals developments and to consider effective means of avoiding impacts and / or appropriate mitigation measures.
323. In addition, planning practice guidance advises on the potential contribution that may be achievable to a 'catchment-based approach' to water through the implementation of local planning policy¹³⁵. A 'catchment' is a geographic area defined naturally by surface water hydrology. Although, it usually means management areas that the EA applies for determining the availability of water for abstraction. The catchment-based approach is also promoted by EA as it

¹³³ National Planning Policy Framework (NPPF) section 13, paragraph 143, bullet point 6;

¹³⁴ National Planning Policy Framework (NPPF) section 11, paragraph 109;

¹³⁵ Planning Practice Guidance (PPG) Water supply, wastewater and water quality section, paragraph 002, reference ID: 34-002-20140306

aids the carrying out of its more strategic duties such as delivering the EU Water Framework Directive (WFD).

324. The WFD requires there to be at least no deterioration in the status of all water bodies, and this obligation will be highly significant in assessing water resource impacts at the local level¹³⁶. The EA are principally responsible for managing the delivery of the WFD in England and are the main consultee in respect of this matter. River Basin Management Plans (RBMPs), which are heavily reliant upon catchment information, have been prepared by the EA and these will act as the baseline from which recommendations are made to the MPA¹³⁷.
325. Where water quality improvements in line with the WFD are a potential outcome of a minerals development proposal, this may be given due consideration based on the scale and significance of any likely change, balanced against other competing planning interests. Efforts to use water in a responsible and efficient manner including the implementation of water recycling regimes may also be taken into account.

Biodiversity and Geo-diversity

Reasoned justification

326. Gloucestershire is renowned for its rich and diverse natural environment made up of individual species, habitats, ecosystems, geological landforms and features. These assets are afforded special attention and often have protection at an international, national and local level.
327. A total of 11 'European Sites' designated as either Special Areas for Conservation (SACs) or Special Protection Areas (SPAs) fall within the county and / or lie within its sphere of influence (e.g. no more than 15km away). Two of these sites are also designated as RAMSAR sites – wetlands of international importance, which from a UK Government viewpoint are treated in the same manner as European Sites¹³⁸ are under the Conservation of Habitats and Species Regulations 2010 (as amended).
328. Gloucestershire's international and national nature conservation designations are protected by European and / or UK law. Where European Sites are concerned, and from a planning perspective, legal requirements go beyond the consideration of individual development proposals. All emerging plans and strategies must be

¹³⁶ The Water Environment (Water Framework Directive) (England and Wales) Regulations 2003 – <http://www.legislation.gov.uk/ukxi/2003/3242/contents/made>

¹³⁷ All RBMPs (and subsequent updates) that have been prepared by the EA are accessible on-line at: - <https://www.gov.uk/government/collections/river-basin-management-plans>

¹³⁸ As set out within National Planning Policy Framework (NPPF) section 11, paragraph 118, bullet point 6 and DEFRA Circular 01/2005

confident that their proposed actions, if adopted, will not have a likely significant effect upon any European Site and if necessary be able to demonstrate that they will not adversely affect the integrity of such sites.

329. Gloucestershire's national nature conservation designations include about 100 Sites of Scientific Interest (SSSIs), notified for their biological and / or geological interest, and four National Nature Reserves (NNRs) – important habitats that contain valuable species and geology and have research potential. SSSIs are protected by the Wildlife and Countryside Act 1981 (as amended) as are numerous plants, birds and other species that are resident to Gloucestershire. Some species which are particularly threatened or declining are afforded additional 'European Protected Species' status under the Conservation of Habitats and Species Regulations 2010 (as amended).
330. In terms of local sites there are well over 800 Key Wildlife Sites (KWS) which support a diverse range of habitats with valuable linkages that allow wildlife to move across the county. There are also around 200 Regionally Important Geological Sites (RIGS) and these are the most important places for geology and geomorphology conservation outside of Gloucestershire's SSSIs.
331. Beyond the established designation regime for sites of nature conservation interest, the Gloucestershire Nature Map also provides a vehicle for the identification and planned enhancement of the county's wider ecological network¹³⁹. The Nature Map network produced by the Gloucestershire Nature Partnership includes main river systems but mainly consists of locally defined landscape units called Strategic Nature Areas (SNAs). These are useful for spatial targeting of nature conservation action and are not formal designations. The SNAs have been arranged into six county priority landscape groupings which have assisted in the identification and formation of several Gloucestershire Nature Improvement Areas (NIAs). The local NIAs represent areas that have active partnerships present that are restoring nature through joint co-ordinated action.
332. All parts of the county that fall outside of a nature conservation designation or a wider area identified through the Gloucestershire Nature Map, may still contain biodiversity value worthy of conserving or enhancing. The provisions of the Natural Environment and Rural Communities (NERC) Act 2006 places a duty on all public authorities to consider the purposes of conserving biodiversity whilst carrying out their functions and so is relevant to the Minerals Local Plan. This duty is in addition to complying with legislative requirements related to

¹³⁹ Gloucestershire Nature Map forms part of wider nature conservation online resource known as 'Gloucestershire's Natural Environment'. It can viewed online at: - <http://www.gloucestershirenature.org.uk/index.php>

biodiversity but also to conserving priority habitats and species on the English List (Section 41, NERC Act).

333. All future development proposals, including those related to minerals, pose a potential threat to the habitats, wildlife, wider ecosystems and geological features and occurrences, which collectively make up Gloucestershire's natural environment. The fundamental action of removing materials and reshaping landforms will physically eradicate and / or irreversibly alter the conditions for biodiversity and geo-diversity. Operational impacts such as light, noise, dust, air and water pollution may also have similar significant impacts particularly where more sensitive and less resilient habitats, species and geological features are present.
334. However, mineral development also presents tangible opportunities to secure enhancements to Gloucestershire natural environment. Although this is possible throughout a development site's life cycle it is particularly relevant to the latter stages where consideration is given to the final or sequential restoration of mineral sites. Policy MR01 covering mineral site restoration predominantly addresses this matter.

Policy DM06 | Biodiversity and Geo-diversity

Designated sites and protected species

Alone or in combination mineral development proposals which are likely to have a significant effect on any European or Internationally Important Site designated as a Special Area of Conservation (SAC), Special Protection Area (SPA) or RAMSAR site will only be permitted, where they have been subject to an Appropriate Assessment, which has determined there will be no adverse affect upon the integrity of such designated sites.

Mineral development proposals will only be permitted within designated Sites of Special Scientific Interest (SSSI) and National Nature Reserves (NNR) and in localities that could have an impact upon such designations, where it can be demonstrated: -

- **There will be no conflict with the conservation, management and enhancement of a designation;**
- **That any potentially harmful aspects of mineral development can be satisfactorily mitigated; and**
- **There would be no broader adverse impact on the national network of**

SSSIs; or where the benefits of mineral development clearly outweigh the potential adverse impacts upon the key features of any designation.

Minerals development proposals on local sites that include Local Nature Reserves (LNR), Gloucestershire Key Wildlife Sites (KWS) and Regionally Important Geological Sites (RIGS) and in localities that could have an impact upon such designations will be permitted where it can be demonstrated: -

- **Adverse impacts can be avoided and /or satisfactorily mitigated; or**
- **Where the benefits of minerals development clearly outweigh the potential adverse impacts upon the key features of any designation.**

Mineral development proposals that could adversely affect legally protected European Protected Species (EPS) or Nationally Protected Species will only be permitted where it can be demonstrated that suitable safeguarding measures will be provided.

Biodiversity and geo-diversity outside of designated areas

Minerals development proposals will normally only be permitted where it can be demonstrated that biodiversity and/or geo-diversity can be conserved or enhanced with potential adverse impacts on natural environment assets avoided or satisfactorily mitigated in line with Gloucestershire Local Nature Partnership objectives.

Linked to the delivery of plan objectives – LC and ENV

Interpretation and implementation

335. National policy requires balanced judgements to be made concerning the conservation and enhancement of the natural environment. These should be based upon a proportionate analysis of the status given to designated sites, aged or veteran trees¹⁴⁰, irreplaceable habitats including ancient woodland, locally recognised Nature Improvement Areas¹⁴¹ (NIAs) and geological conservation interests. Specific reference is also made of the need to minimise impacts on biodiversity by avoiding significant harm, providing adequate mitigation which includes as a last resort compensation for where no alternative with less harmful impacts is available.

¹⁴⁰ National Planning Policy Framework (NPPF) section 11, paragraph 118.

¹⁴¹ National Planning Policy Framework (NPPF) paragraph 117 and Gloucestershire LNP website at <http://gloucestershirenature.org.uk/delivery/index.php>

336. To supplement the protection regime, national policy also seeks appropriate local provision to support established commitments and linked targets, utilising existing nature conservation initiatives, to achieve overall net gains in biodiversity. These may be implementable at a landscape-scale and include measures to preserve, restore and / or recreate priority habitats and ecological networks and aid the recovery of priority species¹⁴². In Gloucestershire the consideration of these matters in deriving minerals policy and site allocations has been well facilitated by reference to the Local Nature Partnership's plan¹⁴³ which includes Nature Map and its component Strategic Nature Areas.
337. Minerals development proposals will be expected to demonstrate how impacts upon biodiversity and geo-diversity have been carefully considered. In doing so, it will be important to have taken into account the nature conservation hierarchy present across the county in arriving at any recommendations and conclusions. Furthermore, vital to any assessment will be the provision of sufficient and proportionately detailed technical information where a Habitats Regulations Assessment (HRA) is required to consider impacts on European Sites.
338. In addition, where a net increase in beneficial biodiversity and, or where enhanced protection and access to geological conservation interests might be achievable, particular significance will be given to minerals development if it can show that these positively contribute towards the objectives set out by the Gloucestershire Local Nature Partnership for Strategic Nature Areas (SNAs), Nature Improvement Areas or for green infrastructure provision¹⁴⁴.

¹⁴² National Planning Policy Framework (NPPF) section 11, paragraph 109, 113, 114, 117, 165 & 180.

¹⁴³ Gloucestershire LNP website at <http://gloucestershirenature.org.uk/actionplan/index.php>

¹⁴⁴ National Planning Policy Framework (NPPF) section 11, paragraph 114

Soils

Reasoned justification

339. Gloucestershire is a rural county that makes a small, but not less important contribution to the UK's agricultural economy. Its valuable finite soil resources must therefore be carefully managed and appropriately protected so as to sustain their use for future generations.
340. The county contains land that bares the highest quality grades of productive soils (i.e. grades 1, 2, 3a), known as the Best and Most Versatile Agricultural Land (BMVAL)¹⁴⁵. These are an important resources considered to be of national significance.
341. Mineral developments can pose a risk to the quality and quantity of soils. The physical removal of soils (i.e. stripping) is necessary to allow access to underlying minerals, but this also risks severely damaging soil resources if not properly handled and stored.
342. There are also potential contamination and degradation risks to soils through the use of heavy machinery and related transport activities, which could spread to surrounding undisturbed soils. It is important therefore that issues regarding the maintenance and monitoring of soil resources is appropriately and proportionately taken into account.

Policy DM07 | Soils

Mineral development proposals will be permitted where it can be demonstrated: -

- **unacceptable adverse impacts on the quality of soil resources as defined through Best and Most Versatile Agricultural Land (BMVAL) grades can be avoided and / or satisfactorily mitigated; or**
- **The benefits of minerals development clearly outweigh the potential adverse impacts on the quality of soil resources.**

Linked to the delivery of plan objectives – LC and ENV

¹⁴⁵ Natural England, through its 'Access to Evidence' web resource has published sub-national scale (1:250 000) agricultural land classification (ALC) maps including for the South West of England. This shows the coverage of different grades of agricultural land from 1-5 - <http://publications.naturalengland.org.uk/publication/144017?category=5954148537204736>.

Interpretation and implementation

343. As set out within national policy, developments including for minerals should seek to protect soil resources¹⁴⁶. In doing so higher quality soils as defined by BMVAL grades should be avoided wherever possible and preference given to the development of land containing poorer quality soils¹⁴⁷. However, if this is not practicably achievable, reasonable and proportionate efforts must be made to ensure the integrity of existing soil quality and any potential degradation is kept to a minimum.
344. A key measure for assessing mineral developments will be the ability to revert disturbed soils back to their most productive use without undermining other measures to safeguard amenity and public health particularly where dust generation may be prevalent.
345. In all instances, a balance will need to be reached between attaining a certain level of protection for soil resources and the need for minerals and subsequent ability to restore worked out mineral sites to facilitate the achievement of beneficial after-uses¹⁴⁸.
346. Mineral development proposals will need to consider their possible impact on soil resources both underlying and nearby. Establishing the quality grade of soils should form part of this exercise. Where disturbance of soil may occur, details of the effective storage of sub soils and top soils will be necessary. Specific matters that will need to be addressed include: - soil stripping; the timely and minimal handling of soils; the avoidance of compaction under storage; and the movement of soils under dry conditions.
347. The significance of soil impact assessments will be determined against their accordance with the most up-to-date good practice advice. This is presently set out within the 'Good Practice Guide for Handling Soils' and 'Guidance for Successful Reclamation of Mineral and Waste sites' published by the Department for Environment, Food and Rural Affairs (DEFRA)¹⁴⁹.

¹⁴⁶ National Planning Policy Framework (NPPF) section 11, paragraph 109, bullet point 1

¹⁴⁷ Planning Practice Guidance (PPG) Brownfield land, soils and agricultural land section, paragraph: 026 Reference ID: 8-026-20140306

¹⁴⁸ National Planning Policy Framework (NPPF) section 11, paragraph 112

¹⁴⁹ DEFRA's Good Practice Guide for Handling Soils is obtainable online at: -

<http://webarchive.nationalarchives.gov.uk/20090306103114/http://www.defra.gov.uk/farm/environment/land-use/soilguid/index.htm>.

Guidance for Successful Reclamation of Mineral and Waste sites is also obtainable online at: -

<http://webarchive.nationalarchives.gov.uk/20090330220529/http://www.defra.gov.uk/farm/environment/land-use/reclamation/index.htm>

Historic Environment

Reasoned justification

348. Gloucestershire contains heritage assets of international, national and local significance. The county has over 500 scheduled monuments, nearly 15,000 listed buildings and structures of various grades, several hundred conservation areas, and over 30,000 other notable archaeological sites documented on the Gloucestershire Historic Environment Record (G-HER)¹⁵⁰.
349. The historic environment makes an invaluable contribution towards defining ‘*Gloucestershire*’ and establishing the individuality and / or connectedness of local places within it. Heritage assets and their setting, along with archaeological remains are important, irreplaceable features that help in our understanding of the past, and to make better sense and enjoyment of the present.
350. The working of minerals can be an intensive activity with major implications for the historic environment. Its extractive nature often over a large land-take can leave few options to avoid impacts, particularly when considering the quality and quantity of resource as a whole. Key risks associated with working may include the direct loss of assets or their partial damage, and / or degradation of quality caused by vehicular and machinery emissions or other disruptive activities.
351. National policy is clear that heritage assets should be conserved, but in a manner that is appropriate to their significance¹⁵¹. It also provides a definition of ‘*significance*’ from a heritage perspective – a measure of value attributed to assets based upon their archaeological, architectural, artistic and / or historic interest both in physical form and also by way of their setting¹⁵². Practice guidance offers further details on delivering conservation through a flexible approach to facilitating the maintenance of assets and their effective management in the presence of change¹⁵³.
352. Legislation specifically concerning the protection of designated heritage assets is also in place. Of relevance to Gloucestershire and the plan, are the legal protections afforded to listed buildings and conservation areas and scheduled monuments¹⁵⁴.

¹⁵⁰ Gloucestershire’s Historic Environment Record (G-HER) can be viewed online at: - <http://www.gloucestershire.gov.uk/her>

¹⁵¹ National Planning Policy Framework (NPPF) section 12, paragraph 126.

¹⁵² National Planning Policy Framework(NPPF) Annex 2: Glossary, definition of ‘*significance*’ (for heritage policy)

¹⁵³ Planning Practice Guidance (PPG) conserving and enhancing the historic environment section, paragraph: 003, reference ID: 18a-003-20140306

¹⁵⁴ The Planning (Listed Buildings and Conservation Areas) Act 1990 and Ancient Monuments & Archaeological Areas Act 1979.

Policy DM08 | Historic Environment

Designated and non-designated heritage assets

Minerals development proposals will be permitted where it is demonstrated that any potential harm to the significance of heritage assets will be avoided and / or satisfactorily mitigated.

Where harm to the significance of heritage assets cannot be fully mitigated, minerals development proposals will only be permitted where it can be demonstrated all reasonable efforts will be taken to reduce harm to a level where it will no longer outweigh the benefits of the proposed mineral development.

Scheduled Monuments and other non-designated assets of archaeological interest of equivalent importance

Minerals development proposals will be permitted, where it is demonstrated that scheduled monuments and other non-designated archaeological assets of equivalent importance will be preserved in situ.

Where it is not justifiable or practicable for scheduled monuments and other non-designated archaeological assets of equivalent importance to be preserved in situ, proposals for mineral development will only be permitted, where necessary provision is made, following a suitable assessment and evaluation, for the excavation, recording, archive deposition, and publication of findings.

Linked to the delivery of plan objectives – ENV and LC

Interpretation and implementation

353. In practice, designated and non-designated heritage assets require balanced judgements to be made regarding the potential scale of loss or harm caused by development including for minerals, measured against their significance. For this reason, it is vitally important that, adequate and proportionate information is available to fully understand the significance of potentially affected heritage assets (including undesignated assets).
354. However, in recognition that certain archaeological assets may not be identifiable or fully appreciated early on in the decision making process, it may be reasonable for a phased approach to be adopted for assessing significance and determining the subsequent treatment of assets, which involves initial desk-

based assessment and / or field evaluations. A clear national framework for assessing the significance of heritage assets is provided by national policy, which sets out specific requirements of prospective applicants and expectations for determining planning authorities¹⁵⁵. There is a necessity for the G-HER to be consulted and technical expertise should also be employed, where necessary.

355. In terms of implementing balanced judgements, the established approach is that the more important the heritage asset, the greater the weight that should be afforded to its conservation through protecting it and / or its setting from harm or loss. Heritage assets of the highest significance should only be subject to substantial harm or loss as a result of development under wholly exceptional circumstances. National policy identifies the designation types that fall into the category of highest significance¹⁵⁶. It also states that for grade II listed buildings, parks or gardens substantial harm or loss caused by development must be exceptional.
356. In all other cases, substantial harm or loss to heritage assets and / or their setting should be strongly resisted unless substantial public benefits can be demonstrated¹⁵⁷. From a minerals planning perspective, the ability to maintain steady and adequate supplies of an important mineral may represent a sufficient justification that outweighs the likelihood of substantial harm or loss occurring. More specifically, this could also include the ability to provide for sufficient supplies of highly valued natural building stone essential to the preservation of the local historic built environment present beyond the proposal site and / or the most significant heritage assets found elsewhere in the country.
357. Where minerals development proposals are deemed likely to cause less than substantial harm to the significance of heritage assets and / or their setting, consideration will be given to the degree of harm weighted against the demonstrable public benefits of the development.
358. It is expected that proposals for minerals development will be accompanied by proportionately detailed assessments of heritage impact. In addition to establishing the significance of each affected heritage assets, analysing potential harm and setting out any reasoned justification for reluctantly allowing harm or loss to occur, thoroughly evidenced means and measures of how mitigating harm and the avoidance of loss should also be provided. Where heritage assets of archaeological interest may be affected, sufficient provision should also be made for their effective preservation in situ or the investigation, excavation and the recording of any finds. The preservation in situ of archaeological assets will

¹⁵⁵ National Planning Policy Framework (NPPF) section 12, paragraphs 128,129, 130.

¹⁵⁶ National Planning Policy Framework (NPPF) section 12, paragraph 132.

¹⁵⁷ This includes those parts of designated conservation areas that are deemed to be making positive contribution to their significance as highlighted under National Planning Policy Framework (NPPF) section 12, paragraph 138.

normally be the preferred solution. Although decisions will be taken on a case-by-case and largely be determined by practicality and the scale of importance (e.g. national or otherwise) of the heritage asset.

359. The degree of weight afforded to the content and conclusions drawn by submitted assessments of heritage impact will be determined by their accordance with the most up-to-date good practice advice endorsed by Historic England (HE) and / or the Department for Culture, Media and Sport (DCMS)¹⁵⁸.
360. The MPA will routinely seek local technical advice from the County Council through its archaeological service, and dependant upon the heritage assets affected, may also pursue specialist advice from District Councils, where technical expertise in the management of listed building and conservation areas is in existence. Furthermore, national practice guidance also sets out standards of consultation practice in respect of heritage matter and notifying Historic England (HE) – the national public body tasked with protecting the historical environment of England¹⁵⁹. However, such guidance does not preclude the MPA from seeking advice from Historic England on a case-by-case basis.

¹⁵⁸ Historic England has published a suite of Good Practice Advice (GPA) documents for Planning and the Historic Environment. These presently cover: - local planning, managing significance in decision-taking, the setting of heritage assets and enabling development (not yet published). GPA documents are accessible on-line at: - <http://historicengland.org.uk/>

Historic England (officially the Historic Buildings and Monuments Commission for England) is an executive non-departmental public body of the British Government sponsored by the Department for Culture, Media and Sport (DCMS). It is tasked with protecting the historical environment of England by preserving and listing historic buildings, ancient monuments and advising central and local government. It came into existence in April 2015 and takes on the statutory and protection functions that use to undertaken by England Heritage (EH).

Landscape

Reasoned justification

361. Gloucestershire is renowned for the diverse and scenic beauty of its landscapes. Over 50% of the county falls under one of three nationally designated Areas of Outstanding Natural Beauty (AONBs)¹⁶⁰. More generally, the National Character Area (NCA) classification identifies 6 distinctive landscape profiles for Gloucestershire – the Herefordshire Lowlands (NCA100), South Herefordshire & Over Severn (NCA104), Forest of Dean & Lower Wye (NCA105), Severn & Avon Vales (NCA106), Cotswolds (NCA107) and Upper Thames Clay Vales (NCA108)¹⁶¹.
362. Detailed landscape characterisation studies have also been prepared at the countywide and local level throughout Gloucestershire. Collectively these studies contribute to a robust local landscape evidence base described as the Gloucestershire Landscape Character Assessment. The studies provide an invaluable baseline for determining the presence of specific features and qualities, identifying potential risks and sensitivities, and highlighting opportunities for enhancement¹⁶².
363. Mineral developments have the potential to impact on local landscapes – through the re-shaping of landforms, removal of features and vegetation and / or the construction of site buildings and structures. However, the significance of such impacts will largely be determined by the site location; relationship to sensitive receptors¹⁶³; nature of working proposed; phase of development; and the type of landscape affected, its qualities, sensitivity and designation status. Of equal significance is the potential to achieve local landscape benefits, particularly through the process of site restoration.

¹⁶⁰ The three AONB designations present in Gloucestershire include: The Cotswolds, Wye Valley and Malvern Hills

¹⁶¹ National Character Areas (NCAs) are defined by Natural England (NE). They are an assemblage of unifying features relating to landscape, biodiversity, geo-diversity, history, culture and economic activity. Full details of each NCA can be found on-line at: - <https://www.gov.uk/government/publications/national-character-area-profiles-data-for-local-decision-making/national-character-area-profiles#ncas-in-south-west-england>

¹⁶² The overarching 'Gloucestershire Landscape Character Assessment' represents the main evidence base covering landscape matters for the county. It is made up of: – The Gloucestershire LCA: - Study Areas of: The Severn Vale, Upper Thames Valley, Vale of Moreton and Vale of Evesham Fringe (2006) <http://www.gloucestershire.gov.uk/extra/CHttpHandler.ashx?id=51673&p=0>; The Forest of Dean LCA (2002) – http://www.fdean.gov.uk/nqcontent.cfm?a_id=6479&tt=graphic; Cotswold AONB LCA (2004) – http://www.cotswoldsaonb.org.uk/landscape_character_assessment/index.htm; and Cotswold Water Park Integrated LCA (2009) - <http://www.cotswold.gov.uk/residents/planning-building/landscape/landscape-character/cotswold-water-park-integrated-landscape-character-assessment/>. Other relevant local area landscape assessments include: The Gloucester-Cheltenham-Tewkesbury Joint Core Strategy Landscape Characterisation Assessment & Sensitivity Analysis (2013) - <http://www.gct-jcs.org/Documents/EvidenceBase/Final-JCS-Master-Landscape-Characterisation-Assessment-and-Sensitivity-Analysis.pdf> and The Stroud LP Landscape Sensitivity Appraisal (2013) http://www.stroud.gov.uk/info/plan_strat/Landscape_Sensitivity_Appraisal.pdf

¹⁶³ Sensitive receptors from a landscape perspective will be determined on a case-by-case basis. However, they usually include: - any statutorily and nationally designated landscape areas reasonably likely to be affected; locally designated landscape areas reasonably likely to be affected; statutorily and non-statutorily designated historic assets and features included within the Gloucestershire Historic Landscape Characterisation (HLC) study; commercial premises for which the preservation or enhancement of local landscape character may be business critical; and residential properties.

Policy DM09 | Landscape**Landscapes outside of AONB designations and which do not affect their setting**

Minerals development proposals will be permitted where it can be demonstrated unacceptable adverse impacts on the character, features and qualities of landscapes as defined through NCAs and LCAs will be avoided and / or satisfactorily mitigated.

Valued landscapes of AONB designations or those forming part of their setting

Minerals development proposals within or that affect the setting of the Cotswolds, Wye Valley and Malvern Hills AONBs will only be permitted where they can demonstrate: -

- **There is an overriding need for the mineral, including national considerations;**
- **The local economy will not be subject to unacceptable adverse impacts;**
- **Alternative non-AONB sources of mineral supply, which are no more constrained, are not practicably available;**
- **Adverse impacts on the special qualities of the AONB as defined in AONB Management Plans (including on the landscape setting and recreational opportunities) can be avoided and / or satisfactorily mitigated; and**
- **Landscape character areas or types as defined through NCAs and LCAs of the AONB will be satisfactorily restored and, where practicably possible, enhanced over the longer term.**

Minerals development proposals classified as ‘major development’ within the Cotswolds, Wye Valley and Malvern Hills AONBs or that affect their setting, will only be permitted under exceptional circumstances, where they have successfully met all of the relevant criteria set out above and have demonstrated they are in the public interest.

Linked to the delivery of plan objectives – ENV, LC and RA

Interpretation and implementation

364. Policy DM09 aims to ensure that sufficient and proportionate analysis is undertaken with minerals development proposals to identify potential landscape impacts and to achieve consistent levels of protection against adverse effects based on their national and local importance, and contribution towards wider ecological networks¹⁶⁴. This approach accords with national policy, which seeks the protection and enhancement of valued landscapes amongst other environmental assets¹⁶⁵.
365. AONB designations are given specific attention in respect of the high degree of protection that should be given to conserving landscapes and scenic beauty and for the importance of taking into account wildlife interests and cultural heritage¹⁶⁶. There is an overriding presumption against major development within AONBs for which only under exceptional circumstances, proposals may be acceptable¹⁶⁷.
366. From a mineral planning perspective, a clear and demonstrable need for mineral may prove to be a valid exceptional circumstance, but only when considered alongside other factors such as economic impact and viability and a broader view environmental, landscape and recreational impacts. Furthermore, national policy concerning mineral developments, also targets the need to make provision of non-energy minerals, by way of maintaining landbanks, from outside of designated AONBs, where this can practicably be achieved¹⁶⁸.
367. Landscape mitigation for minerals developments has potential and usually involves either integrating or screening operating sites. It can include planting, the construction of bunds and / or sympathetic colouring of built structures and the design and positioning of development to take advantage of site contours. The acceptability of any mitigation proposals will largely be dependant upon the preservation or enhancement of the existing defining elements of local landscape character and local distinctiveness, and the avoidance of risk from the introduction of alien features (i.e. by appropriately selecting the right mix of species and planting layouts). Existing vegetation should be skilfully integrated as far as reasonably practicable, so as to achieve minimal intervention in reducing landscape and visual impacts.
368. Where mineral development proposals are of size, scale and nature that more significant landscape impacts become unavoidable, even accounting for a proportionate and reasonable programme of mitigation, very careful

¹⁶⁴ National Planning Policy Framework (NPPF) section 11, paragraph 119.

¹⁶⁵ National Planning Policy Framework (NPPF) section 11, paragraph 109, bullet point 1.

¹⁶⁶ National Planning Policy Framework (NPPF) section 11, paragraph 115.

¹⁶⁷ National Planning Policy Framework (NPPF) section 11, paragraph 116.

¹⁶⁸ National Planning Policy Framework (NPPF) section 13, paragraph 144, bullet point 2.

consideration will need to be given to the severity of any residual landscape impacts compared to the importance of the mineral being sought with reference to the aims of policy MW01 (aggregate provision) and / or policy MW02 (natural building stone).

369. All mineral development proposals should be accompanied by a proportionately detailed Landscape and Visual Impact Assessment (LVIA) that identifies and responds to potential landscape-related issues having reviewed the latest available local evidence, which forms the Gloucestershire Landscape Character Assessment.
370. Critical to such assessments will be the degree to which avoidance, protection and / or mitigation of landscape impacts can be satisfactorily achieved. Where designated AONBs or their settings are concerned, specific consideration will be given to the potential impact upon their defined 'special qualities'¹⁶⁹.
371. LVIAs should ideally be prepared in accordance with the most up-to-date version of the Landscape Institute's Guidance for Landscape and Visual Impact Assessment (GLVIA)¹⁷⁰.

Gloucester – Cheltenham Green Belt

Reasoned justification

372. The Gloucester-Cheltenham Green Belt designation was initially incorporated into the County of Gloucestershire Development Plan 1st Quinquennial Review published in 1960. Its main aim, which remains unchanged and valid, was to preserve the open character of land between the two settlements and to prevent them from merging. The countywide Structure Plan adopted in 1981, has extended the designation northwards of Cheltenham to also avoid coalescence between Cheltenham and the expanding settlement of Bishop's Cleeve.
373. Several Mineral Safeguarding Areas (MSAs) exist across parts of the Gloucester-Cheltenham Green Belt. These are concerned with the presence of sand & gravel and clay resources¹⁷¹. In the past relatively small-scale mineral working has taken place, which has made a modest contribution to the steady and adequate supply of aggregate minerals and the landbank of permitted

¹⁶⁹ The 'special qualities' of the Cotswold AONB are defined within the Cotswold AONB Management Plan (2013-2018) which can be viewed on-line at: - http://www.cotswoldsaonb.org.uk/management_plan/index.html. For the Wye Valley AONB, its 'special qualities' are established within the Wye Valley AONB Management Plan (2009-2014), which can also be viewed on-line at: - <http://weyvalleyaonb.org.uk/images/uploads/general/AONBManagementPlan09-14.pdf>. The Malvern Hills AONB Management Plan (2014-2019) contains its areas 'special qualities' and is available on-line at: - <http://www.malvernhillsaonb.org.uk/wp-content/uploads/2015/02/FinalLowResManPlan2014-19.pdf>

¹⁷⁰ The 3rd edition of Guidelines for Landscape and Visual Impact Assessment (GLVIA3) prepared by the Landscape Institute was published and came into force on 17 April 2013. The GLVIA3 is purchasable on-line at: - <http://www.landscapeinstitute.org/knowledge/GLVIA.php>

¹⁷¹ Appendix 1: The Key Diagram sets out the full extent of Gloucestershire's Mineral Safeguarding Areas (MSAs)

reserves¹⁷². Whilst, no plan allocations presently exist within the designation, future minerals development could still arise as windfalls most likely linked to the occurrence of mineral sterilisation issues or for providing a localised mineral supply related to specific development projects.

374. Consequently, very careful consideration will need to be taken of the matters surrounding the acceptableness of minerals development proposals that may be brought forward within Gloucester-Cheltenham Green Belt over the course of plan period taking into account the overarching aim of the designation

Policy DM10 | Gloucester-Cheltenham Green Belt

Mineral extraction within the Green Belt

Minerals development proposals for extraction within the Gloucester-Cheltenham Green Belt and will be permitted where it can demonstrated: -

- **the openness of the designation will be preserved; and**
- **there will be no conflict with the purposes of including land in the Green Belt**

Minerals development proposals for extraction within the Gloucester-Cheltenham Green Belt that will reduce the openness of the designation and will cause conflict with the purposes of including land in the Green Belt, will only be permitted under very special circumstances, where it can be demonstrated that the totality of the harm to the Green Belt and any other harm will be outweighed by other planning considerations

Other minerals developments within the Green Belt

Minerals development proposals other than for extraction will be inappropriate development within the Gloucester-Cheltenham Green Belt and will only be permitted under very special circumstances, where it can be demonstrated the totality of the harm to the Green Belt and any other harm will be outweighed by other planning considerations.

Linked to the delivery of plan objective – ENV

¹⁷² The Gloucestershire Annual Monitoring Report (AMR) 2004/2005 indicates that 8.40ha of land within the Gloucester-Cheltenham Green Belt was subject to minerals development proposals.

Interpretation and implementation

375. National policy maintains a longstanding position on the aim and function of Green Belt designations¹⁷³. It specifically states they are required to prevent urban sprawl and to keep land permanently open. It also sets out five purposes for the designation : -

- To check the unrestricted sprawl of large built-up areas;
- To prevent neighbouring towns merging into one another;
- To assist in safeguarding the countryside from encroachment;
- To preserve the setting and special character of historic towns; and
- To assist in urban regeneration, by encouraging the recycling of derelict and other urban land¹⁷⁴

376. National policy also makes provision for mineral working to be allowed to take place in principle within the Green Belt where openness is preserved and no conflict will occur with purposes of the designation¹⁷⁵. This is reflective of the temporary nature and low intensity of any built structures such as certain forms of plant that usually accompanies this type of activity.

377. However, all other types of minerals development such as ancillary added value plant e.g. ready mix plant, block-making etc. must demonstrate very special circumstances exist before they are able to proceed. National policy confirms such proposals will be inappropriate, and by definition harmful to Green Belt designations¹⁷⁶.

378. All minerals development proposals will need to be considered on their individual merits. Although the importance of the mineral to be worked with respect to maintaining steady and adequate supplies from Gloucestershire; the availability of resources from outside of the Green Belt; and / or the size, scale and timescales being considered for minerals development may be matters that could contribute towards the demonstration of very special circumstances.

¹⁷³ National Planning Policy Framework (NPPF) section 9, paragraph 79.

¹⁷⁴ National Planning Policy Framework (NPPF) section 9, paragraph 80.

¹⁷⁵ National Planning Policy Framework (NPPF) section 9, paragraph 90.

¹⁷⁶ National Planning Policy Framework (NPPF) section 9, paragraph 87.

Aerodrome safeguarding and aviation safety

Reasoned justification

379. Gloucestershire contains civil and military aerodromes including Gloucestershire Airport located at Staverton and RAF Fairford within the Cotswold Water Park. In both cases mineral resources of potential economic interest are located nearby.
380. At RAF Fairford, in particular, significant and extensive amounts of sand & gravel are known to exist. Large areas of land surrounding the military aerodrome have already been worked and proposals for this to continue into the future may come forward. These local sand & gravel resources are considered to be of strategic significance, but so are the county's aerodromes.

Policy DM11 | Aerodrome safeguarding and aviation safety

Minerals development proposals will be permitted only where it can be demonstrated that unacceptable adverse impacts on aviation safety can be avoided and / or satisfactorily mitigated.

Linked to the delivery of plan objective – LC

Interpretation and implementation

381. Town and Country Planning (safeguarded aerodromes, technical sites and military explosives storage areas) direction 2002 sets out the government approach for dealing with this matter¹⁷⁷. The direction seeks to ensure the operation and development of aerodromes will not be inhibited. It states that buildings, structures, erections or works that could infringe protected surfaces, obscure runway approach lights or have the potential to impair the performance of aerodrome navigation aids, radio aids or telecommunication systems must be avoided. It also advises against artificial lighting that may distract pilots and the prevention of bird hazard resulting from the introduction of and / or increase in birds. This latter issue is of particular relevance to mineral developments that incorporate the restoration of worked out mineral sites.
382. Mineral developments located within 13km of officially safeguarded civil aerodromes and up to 8 miles of military aerodromes or delineated safeguard areas for NATS Technical Sites, will need to be scrutinised by the relevant owner

¹⁷⁷ Circular 01/03: Safeguarding aerodromes, technical sites and military explosives storage areas contains within Annex 1 the full content of Town and Country Planning (Safeguarding Aerodromes, Technical Sites and Military Explosives Storage Areas) Direction 2002. It can be obtained online at: - <https://www.gov.uk/government/publications/safeguarding-aerodromes-technical-sites-and-military-explosives-storage-areas>

or operator of each facility concerned. Specifically in the case of military facilities, the Secretary of State for Defence must be consulted. Representations made by these parties will be carefully considered against the provisions of the government's direction.

383. Several certified aviation safeguarding maps have been published that include parts of Gloucestershire¹⁷⁸. This also includes safeguarding areas for RAF Brize Norton in Oxfordshire which extends into part of Gloucestershire. Safeguarding consultation areas have also been included on the plan's policies map.
384. All mineral development proposals will need to consider their significance in terms of aerodrome safeguarding and aviation safety. For those proposals that fall within allocated areas contained within the plan, location-specific matters are provided where relevant under the detailed development requirements of section 9 of the plan.
385. For proposals outside of allocated areas, but within aviation-related safeguarding areas, detailed information concerning how the operations of aerodromes and related facilities will not be adversely impacted will be necessary. This will need to address all phases of minerals development including restoration and aftercare. Where mitigation is considered necessary, its feasibility and practical implementation will be carefully scrutinised before any decisions are taken.

¹⁷⁸ All aviation safeguarding maps issued to local planning authorities, including MPAs for consultation notification purposes must be certified by either the Civil Aviation Authority (CAA) or the Secretary of State for Defence.

Section 11 | Mineral Restoration

Restoration, aftercare and facilitating beneficial after-uses

Reasoned justification

386. Unlike most other forms of development the working of minerals is a temporary use of land. No proposal can claim to have avoided or mitigated possible adverse impacts without sufficiently addressing the matter of site restoration. It is applicable to all types of mineral workings whether they are carried out rapidly or take place over a long period of time. It also incorporates ancillary built development tied to the mineral operations.
387. The restoration of mineral sites is integral to the achievement of sustainable development. The way in which disturbed, worked land is restored and managed to facilitate beneficial after-use provides a unique opportunity to enhance the character of land directly impacted by mineral working. Well-managed restoration should enable appropriate after-uses to be established that will positively contribute towards safeguarding or improving the environment or the facilities that are available to local communities. This may include complementing other locally prepared and supported plans and strategies such as various AONB Management Plans and the Cotswold Water Park Master Plan¹⁷⁹.
388. Wherever possible, valuable new assets should also be carefully considered, particularly where benefits to future generations are realistically achievable. It is also important that the types of potential after-uses that are able to come forward post-mineral working are not unreasonably and / or unjustifiably limited and sufficient flexibility is available to reflect changing priorities for land use over time.
389. National policy specifically states that local planning authorities should seek to ensure mineral site restoration and aftercare occurs at the earliest opportunity and it is carried out to high environmental standards¹⁸⁰.

¹⁷⁹ Cotswold Water Park Master Plan (2008)
<http://www.waterpark.org/resources-documents/>

¹⁸⁰ National Planning Policy Framework (NPPF) section 13, paragraph 144, bullet point 6

Policy MR01 | Restoration, aftercare and facilitating beneficial after-uses

Minerals development proposals will be permitted only where it can be demonstrated: -

- **Restoration and aftercare will take place at the earliest opportunity and to an acceptable environmental condition; and**
- **Beneficial and sustainable after-uses will be facilitated that will positively contribute towards improvements to environmental quality, biodiversity and / or the health, well-being and quality of life of local communities.**

Linked to the delivery of plan objective – RA

Interpretation and implementation

390. Restoration consists of all operations designed to return the land to an acceptable landform and environmental condition. It includes the use of and / or the act of replacing lost subsoil and topsoil or other soil making materials and related activities such as the stripping and protection of existing, on-site soils. The dismantling of temporary buildings and breaking up of concrete pads or site roads also falls into this category.

391. Following planning practice guidance, all minerals development proposals should incorporate a plan for restoration. This should form a key element of the application process, and preferably be established from the outset and be included as an item for pre-application advice.

392. For practical reasons very long-term minerals developments proposals may not be able to provide all restoration and aftercare details in full. However, sufficient information must be provided to demonstrate how the overall objectives for restoration are both reasonable and achievable.

393. The nature of any supporting information will also likely vary depending upon the size, scale and type of minerals development proposal under consideration. Nevertheless as minimum, the following items should be provided: -

- An overall restoration strategy, identifying the proposed after-use of the site;
- Information about soil resources and hydrology, and how topsoil / subsoil / overburden / and other soil making materials are to be handled and stored whilst extraction is taking place;

- Where the land is agricultural land, an assessment of the agricultural land classification grade;
 - Short term aftercare and any long-term management if necessary; and
 - A landscape strategy.
394. If mineral extraction is carried out on Best and Most Versatile agricultural land the outline restoration and aftercare strategy should show, where practicable, how the methods used in the restoration and aftercare enable the land to retain its longer term capability, even though the proposed after-use need not always be agriculture¹⁸¹.
395. Reclamation also provides potential opportunities for delivery of benefits and enhancements to the environment or amenity. An approach that has broad level support in national policy¹⁸². For example, reclaimed sites can provide biodiversity or geo-diversity gain in line with biodiversity and geo-diversity action plans, opportunities for informal or formal recreation and, for certain areas, reclaimed sites may be able to play a role in flood risk reduction, or supply of water for agriculture, or for potential river recharge. Biodiversity should be designed into schemes from the start to ensure a net gain overall as advised within planning practice guidance¹⁸³.
396. Mineral site restoration provides an opportunity to recognise the wider benefits of ecosystem services and an appropriately detailed assessment can be used to compare alternative restoration scenarios in order to provide a scheme, which offers the most 'value' in terms of ecosystem services. Defra have produced guidance on valuing ecosystem services which can be used to inform decision-taking on planning applications¹⁸⁴.
397. It is also important to consider the contribution that mineral site restoration can make towards green infrastructure provision. Where this is cited, submitted evidence will be reviewed to establish whether contributions to green infrastructure provision are realistic.
398. Increasingly, inert material is being diverted away from landfill as it is subject to more re-use and recycling in accordance with adopted Waste Core Strategy policy WCS4 (Inert Waste Recycling and Recovery). This means that forms of low level (i.e. below original ground level) reclamation are increasingly common and this is not expected to change. Waste Core Strategy Policy 8 (Landfill) sets

¹⁸¹ Taken from Planning Practice Guidance (PPG), Restoration and aftercare of minerals sites section, paragraph: 040, reference ID: 27-040-20140306

¹⁸² National Planning Policy Framework (NPPF), section 11, paragraph 109, bullet point 3

¹⁸³ Planning Practice Guidance (PPG), Biodiversity and ecosystems section, paragraph: 008, reference ID: 8-008-20140306

¹⁸⁴ Guidance on Ecosystem services provided through DEFRA – <https://www.gov.uk/guidance/ecosystems-services>

out the criteria under which landfilling for restoration purposes may be acceptable within Gloucestershire.

399. In the case of sand & gravel mineral sites where the water table is more often high, reclamation usually results in the creation of wetland features and lakes. As well as providing opportunities (e.g. for habitat creation, geo-diversity and recreation), this can also create challenges. These may include amongst others: loss of landscape, impact and changes to the setting of communities and heritage assets, loss of agricultural land, water resources and flooding issues and potential conflict with airfield safeguarding requirements due to the attractiveness of lakes to flocking birds.
400. Consequently, careful consideration should be given to the habitats that are a priority in a particular area and whether importing material as part of any restoration scheme would bring greater benefits than simply allowing a low-level scheme.
401. Restoration and aftercare will be secured through the use of appropriate conditions and in some cases, planning obligations. Amendments to restoration schemes may need to be made where circumstances change over the time between permission being granted and the restoration being implemented. The responsibility for restoration and aftercare lies with the operator, or in the case of default, the landowner. Aftercare and maintenance of the restored land shall be for a period of not less than five years in line with planning practice guidance¹⁸⁵. Longer aftercare periods may be needed in some circumstances.
402. Whatever form of reclamation is agreed, it will be necessary to ensure that appropriate safeguards and controls are in place to ensure the satisfactory long term after-use of the land, and to plan for this as part of the process. Some after-uses, such as formal recreation, may need to be resolved through the submission of separate planning applications. In all cases, it will be important that reclamation and after-use proposals brought forward by the mineral operator are developed in consultation with local communities and other relevant stakeholders, to help ensure that proposals accommodate local opinion.

¹⁸⁵ Planning Practice Guidance (PPG), Restoration and aftercare of minerals sites section, paragraph: 056, reference ID: 27-056-20140306

Section 12 | Managing and monitoring plan delivery

403. Monitoring is a vital part of evidence-based local plan making. National policy states that local planning authorities should ensure that their plans are based on adequate, up-to-date and relevant evidence¹⁸⁶. To achieve this, it is necessary for the plan to contain a clear monitoring schedule aimed at ensuring its policies are still founded upon accurate, appropriate and up-to-date evidence over time, and that the vision and objectives they are seeking to support are being achieved.
404. A monitoring and delivery framework has been established. It details how the objectives of the plan will be achieved using monitoring data indicators relevant to each of the plan's policies. The framework includes targets against which the performance of the policies can be monitored, plus 'triggers' to signpost when corrective action may be necessary.
405. The monitoring of each indicator will be carried out as part of the production of the Gloucestershire Minerals & Waste Authorities Monitoring Report¹⁸⁷. Where data outputs indicate a change has, or is beginning to occur with minerals development including trends that could potentially undermine the vision or objectives, this may instigate a detailed analysis leading to a more formal policy review.
406. Data collection and management will be undertaken in a collaborative manner. A number of indicators will require support from local planning authorities throughout the county. Some local minerals data will also be of significance to national and sub-national level planning. In particular aggregate supply data from Gloucestershire will feed into the monitoring and reporting of the South West Aggregate Working Party (SW-AWP) through the Local Aggregate Assessment (LAA) process.
407. Gloucestershire County Council as the local MPA will publish monitoring data regularly and in a consistent format to allow its analysis by all other interested parties. However, circumstances may occur which prevent full disclosure on all occasions due to commercial confidentiality. Furthermore, there may also be limitations to the amount of data that is collected or has been made available. An example of this is the local supply of recycled aggregate. This is heavily reliant upon the willingness of operators to co-operate often under only informal, individual and unwritten voluntary agreements.

¹⁸⁶ National Planning Policy Framework (NPPF), paragraph 158.

¹⁸⁷ The Gloucestershire Minerals & Waste Authorities Monitoring Report (AMR) can be viewed at: - <http://www.gloucestershire.gov.uk/extra/amr>

408. The following monitoring schedule reiterates the link made between each of the plan's objectives and its policies. It also sets out the mechanism for local monitoring and how effective policy delivery will be measured and scrutinised.

Minerals Local Plan for Gloucestershire (2018 – 2032) Monitoring Schedule

Policy	Indicator(s)	Who?	How?	When?	Target	Trigger	Plan objective link
SR01 Maximising the use of secondary and recycled aggregates	Planning applications for major non-minerals development being permitted that will result in primary aggregates being used in preference to viable and available sources of alternative – secondary and / or recycled aggregates	GCC District Councils	Review of district DM decisions Review of non-minerals County Council DM decisions	On-going / Annually reported	100% refusal of non-minerals major development that do not provide a comprehensive assessment of whether alternative – secondary and / or recycled aggregates could be used within the development	1 application permitted that permitted that does not meet all policy criteria and received an objection from the MPA concerning the failure to use viable and available sources of alternative – secondary and / or recycled aggregates	SR, RM, PS
MS01 Non-minerals development within MSAs	Planning applications for non-minerals development being permitted within MSAs	GCC District Councils	Review of district DM decisions Review of non-minerals County Council DM decisions	On-going / Annually reported	100% refusal of non-minerals development within MSAs that would otherwise needlessly sterilise mineral resources	1 application permitted that does not meet all policy criteria	RM
MS02 Non-minerals development within MCAs	Planning applications for non-minerals development being permitted within MCAs	GCC District Councils	Review of district DM decisions Review of non-minerals County Council DM decisions	On-going / Annually reported	100% refusal of non-minerals development within MCAs that would prejudice existing or planned mineral operations	1 application permitted that that does not meet all policy criteria and received an objection from the MPA relating to mineral sterilisation and / or restricted operations	RM
MS03 Safeguarding mineral infrastructure	Planning applications for non-minerals development being permitted on, or within 150m of safeguarded mineral infrastructure sites (see appendix 4)	GCC District Councils	Review of district DM decisions	On-going / Annually reported	100% refusal of non-minerals development being permitted on, or within 150m of safeguarded mineral infrastructure sites that would prejudice the capability and / or capacity of mineral operations in the county	1 application permitted that received an objection from the MPA linked to the safeguarding of mineral infrastructure	SR, RM

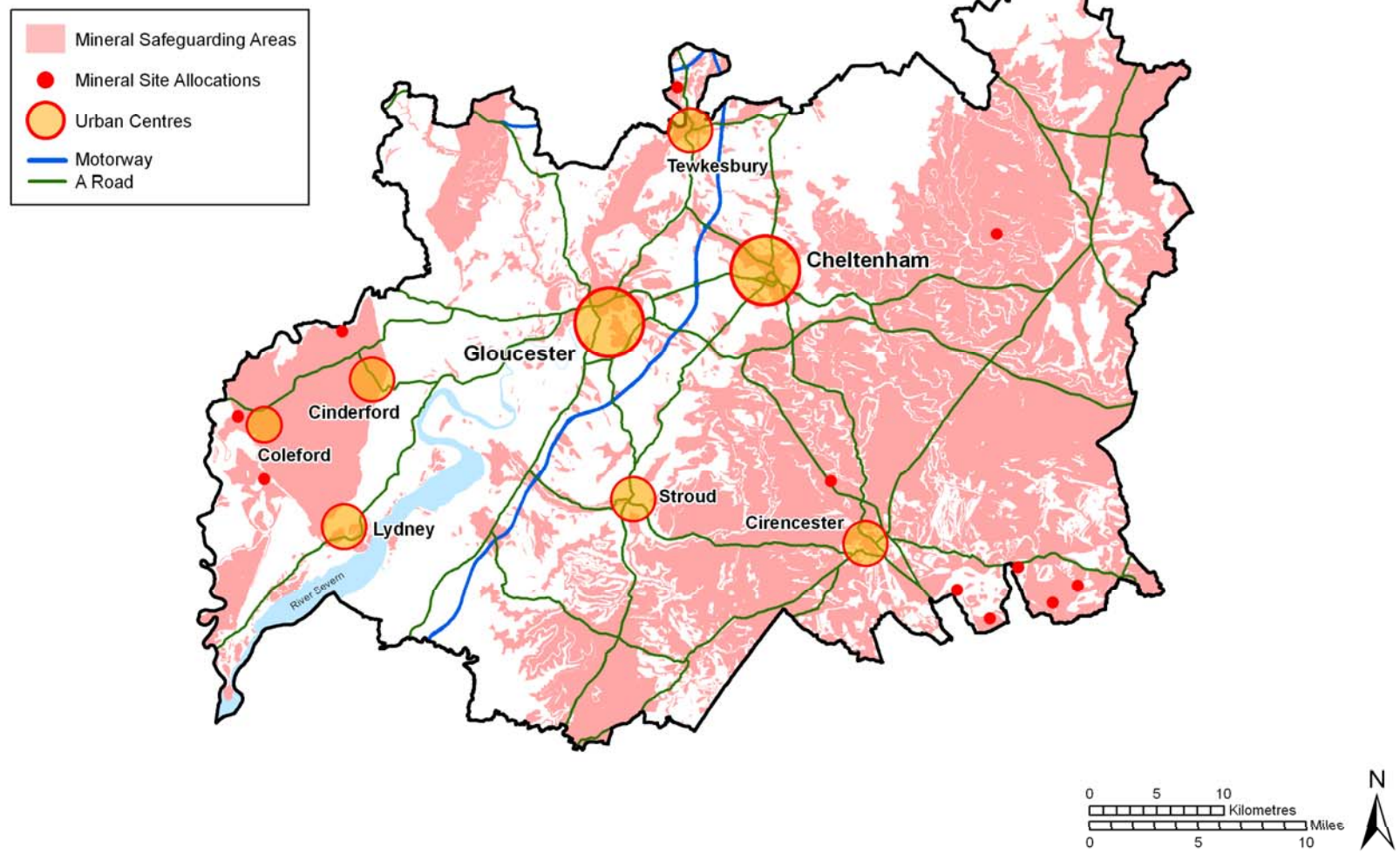
Policy	Indicator(s)	Who?	How?	When?	Target	Trigger	Plan objective link
MW01 Aggregate provision	Sales and reserve data for sand & gravel and crushed rock limestone	GCC Mineral Operators	Aggregate Monitoring Survey	Annual data from the previous calendar year	The annual supply of aggregates to equal at least the 10 year rolling average of sales for crushed rock (1.517mt as of 2014) and sand & gravel (0.788 mt as of 2014) and the maintenance of at least a 10 year landbank for crushed rock or at least a 7 year landbank for sand & gravel.	Remaining estimated aggregate yields contained in site allocations being insufficient to facilitate the maintenance of at least a 10 year landbank for crushed rock or at least 7 year landbank for sand & gravel.	PS
MW02 Natural building stone	Sales and reserves data for natural building stone and planning applications being permitted for working natural building stone.	GCC Mineral Operators	Mineral Monitoring Survey and review of County Council DM decisions	Annual data from the previous calendar year	100% of applications meeting all policy criteria granted planning permission	1 application permitted that does not meet all policy criteria	PS, RM, ENV
MW03 Clay for civil engineering purposes	Planning applications being permitted for working clay for civil engineering purposes.	GCC	Review of County Council DM decisions	On-going / Annually reported	100% of applications meeting all policy criteria granted planning permission	1 application permitted that does not meet all policy criteria	PS, RM
MW04 Brick clay	Sales and reserves data for brick clay and planning applications being permitted for working brick clay	GCC Mineral Operators	Mineral Monitoring Survey and review of County Council DM decisions	Annual data from the previous calendar year	100% of applications meeting all policy criteria granted planning permission	1 application permitted that does not meet all policy criteria	PS, RM, ENV
MW05 Coal	Planning applications being permitted for working coal	GCC	Review of County Council DM decisions	On-going / Annually reported	100% of applications meeting all policy criteria granted planning permission	1 application permitted that does not meet all policy criteria	PS, RM, ENV, LC
MW06 Oil & Gas	Planning applications being permitted for the exploration, appraisal, production of oil and / or gas through conventional and / or unconventional techniques	GCC	Review of County Council DM decisions	On-going / Annually reported	100% of applications meeting all policy criteria granted planning permission	1 application permitted that does not meet all policy criteria	PS, RM, LC

Policy	Indicator(s)	Who?	How?	When?	Target	Trigger	Plan objective link
MW07 Ancillary Development	Planning applications permitted for ancillary minerals development	GCC	Review of County Council DM decisions	On-going / Annually reported	100% of applications meeting all policy criteria granted planning permission	1 application permitted that does not meet all policy criteria	PS, RM, LC
MA01 Aggregate working within site allocations	Planning applications for non-minerals development being permitted within site allocations	District Councils	Review of District DM decisions	On-going / Annually reported	100% refusal of non-minerals development within site allocations that received an objection from the MPA	1 application permitted that received an objection from the MPA	PS, RM, LC
	Planning applications for aggregate working within site allocations	GCC	Review of County Council DM decisions		100% of applications meeting all policy criteria including Site Specific Requirements granted planning permission	1 application permitted that does not meet all policy criteria	PS, RM, LC
MA02 Aggregate working outside of site allocations	Planning applications permitted for aggregate working on land outside of site allocations	GCC	Review of County Council DM decisions	On-going / Annually reported	100% refusal of decisions that do not meet requirements of the policy.	1 application permitted that does not meet all policy criteria	PS, RM, LC
DM01 Amenity	Planning applications for minerals development being permitted where amenity issues where relevant and underwent scrutiny	GCC	Review of County Council DM decisions	On-going / Annually reported	100% of applications meeting all policy criteria granted planning permission	1 application permitted that does not meet all policy criteria	LC
DM02 Cumulative Impact	Planning applications for minerals development being permitted where cumulative impacts from other on-site operations and / or those in the nearby locality where relevant and underwent scrutiny	GCC	Review of County Council DM decisions	On-going / Annually reported	100% of applications meeting all policy criteria granted planning permission	1 application permitted that does not meet all policy criteria	LC
DM03 Transport	Planning applications for minerals development being permitted where transport issues where relevant and underwent scrutiny	GCC	Review of County Council DM decisions	On-going / Annually reported	100% of applications meeting all policy criteria granted planning permission	1 application permitted that does not meet all policy criteria	LC, MM

Policy	Indicator(s)	Who?	How?	When?	Target	Trigger	Plan objective link
DM04 Flood Risk	Planning applications for minerals development being permitted where flood risk issues where relevant and underwent scrutiny	GCC	Review of County Council DM decisions	On-going / Annually reported	100% of applications meeting all policy criteria granted planning permission	1 application permitted that does not meet all policy criteria	ENV, LC, RA
DM05 Water Environment	Planning applications for minerals development being permitted where water environment issues where relevant and underwent scrutiny	GCC	Review of County Council DM decisions	On-going / Annually reported	100% of applications meeting all policy criteria granted planning permission	1 application permitted that does not meet all policy criteria	ENV, LC, RA
DM06 Biodiversity and Geo-diversity	Planning applications for minerals development being permitted where biodiversity and / or geo-diversity issues where relevant and underwent scrutiny	GCC	Review of County Council DM decisions	On-going / Annually reported	100% of applications meeting all policy criteria granted planning permission	1 application permitted that does not meet all policy criteria	ENV, RA
DM07 Soils	Planning applications for minerals development being permitted where soil resources issues where relevant and underwent scrutiny	GCC	Review of County Council DM decisions	On-going / Annually reported	100% of applications meeting all policy criteria granted planning permission	1 application permitted that does not meet all policy criteria	ENV, RA
DM08 Historic Environment	Planning applications for minerals development being permitted where historic environment issues where relevant and underwent scrutiny	GCC	Review of County Council DM decisions	On-going / Annually reported	100% of applications meeting all policy criteria granted planning permission	1 application permitted that does not meet all policy criteria	ENV
DM09 Landscape	Planning applications for minerals development where landscape issues where relevant and underwent scrutiny	GCC	Review of County Council DM decisions	On-going / Annually reported	100% of applications meeting all policy criteria granted planning permission	1 application permitted that does not meet all policy criteria	ENV, RA
DM10 Gloucester-Cheltenham Green Belt	Planning applications for minerals development where permitted within the Gloucester-Cheltenham Green Belt	GCC	Review of County Council DM decisions	On-going / Annually reported	100% of applications meeting all policy criteria granted planning permission	1 application permitted that does not meet all policy criteria	ENV, RA

Policy	Indicator(s)	Who?	How?	When?	Target	Trigger	Plan objective link
DM11 Aerodrome safeguarding and aviation safety	Planning applications for minerals development being permitted where aerodrome safeguarding and / or aviation safety issues where relevant and underwent scrutiny	GCC	Review of County Council DM decisions	On-going / Annually reported	100% of applications meeting all policy criteria granted planning permission	1 application permitted that does not meet all policy criteria and received an objection from aviation safeguarding bodies	ENV, LC, RA
MR01 Restoration, aftercare and facilitating beneficial after-uses	Planning applications for minerals development being permitted where site restoration and aftercare issues where relevant and underwent scrutiny	GCC	Review of County Council DM decisions	On-going / Annually reported	100% of applications meeting all policy criteria granted planning permission	1 application permitted that does not meet all policy criteria	ENV, LC, RA

Appendix 1 - Key Diagram for Draft Minerals Local Plan



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Appendix 2 | MSA implementation schedule

A2.1 The MSA implementation schedule is designed to assist Gloucestershire's local planning authorities (i.e. boroughs, districts, city and the County Council) in the consideration of mineral sterilisation matters in accordance with policy MS01. The schedule includes the type of non-minerals development proposals within Gloucestershire's Minerals Safeguarding Areas (MSAs), which should be assessed. This will normally involve the preparation of an appropriately detailed mineral resource assessment (MRA).

A2.2 All non-minerals development, which is **not included** on the schedule, is deemed to have satisfied the requirements of policy MS01 – in that the size, scale and nature of the development would be insufficient to create a meaningful mineral sterilisation issue and / or there may be no reasonable prospect of there being practicable and achievable means to avoid sterilisation from taking place.

A2.3 In addition, all potential development that is included within an adopted or emerging local plan will not be required to undergo an MRA unless it is specifically identified as a detailed local policy requirement that forms part of that allocation.

Non-minerals development proposals within a MSA that WILL require a Mineral Resource Assessment (MRA): -

Residential development of 2.5 ha¹⁸⁸ or more within rural and / or edge of urban localities¹⁸⁹, which has not been allocated within an adopted or emerging local plan;

Residential development of 5 ha¹⁹⁰ or more within urban / built-up areas¹⁹¹, which has not been allocated within an adopted or emerging local plan;

¹⁸⁸ A land take threshold of 2.5ha before a MRA is needed for non-minerals development within rural and edge of urban localities represents a pragmatic approach to the effective implementation of mineral resource safeguarding in Gloucestershire. A development of 2.5ha or more is more likely to be able to accommodate the degree of amenity and environmental protection and mitigation likely to be required with any prior working opportunities and be of a sufficient size in order to realise a large enough quantity of mineral to make any potential prior working realistically viable and achievable.

¹⁸⁹ For the purposes of policy MS01 'rural' localities include all areas outside of a locally designated settlement boundary or settlement development limit. 'Edge of urban' localities also represent a 'rural' locality, but which is adjacent to land that falls under the definition of an 'urban / built-up' area.

¹⁹⁰ The larger land take threshold afforded to urban areas (i.e. 5 ha) before a MRA is needed for non-minerals development has been applied in recognition of the likelihood that larger stand-off zones will be required to ensure the effective amenity protection and mitigation for sensitive neighbouring / nearby receptors such as housing and commercial premises and the consequential impact this may have on the availability and viability of prior working of underlying mineral resources.

¹⁹¹ For the purposes of policy MS01 'urban / built-up' areas include all those that form part of a locally defined: - key urban area, market town, rural service centre, local service centre, accessible settlement, or major village as used within the various settlement hierarchies of Gloucestershire's districts adopted and emerging local plans.

Employment development ¹⁹² of 1.5 ha ¹⁹³ or more within rural and / or edge of urban localities, which is not located upon an employment allocation within an adopted or emerging local plan;
Employment development of 3 ha ¹⁹⁴ or more within urban / built-up areas, which is not located upon an employment allocation within an adopted or emerging local plan;
All National Significant Infrastructure Projects (NSIPs) excluding gas pipelines or over ground electricity lines ¹⁹⁵ ;
All sub-national infrastructure development, which falls outside of the NSIP thresholds and has a land take of 1.5 ha ¹⁹⁶ or more within rural and / or edge of urban localities;
All sub-national infrastructure development, which falls outside of the NSIP thresholds and has a land take of 3 ha ¹⁹⁷ or more within urban / built-up areas;
All development that also falls within a MCA and which is not exempt from the requirements of policy MS02

¹⁹² For the purposes of policy MS01 employment development includes: - retail, finance & professional services, and food & drink (use classes A1-A5); general business, industry and storage (use classes B1, B2 and B8); leisure and recreation (including use classes C1 and D2); and all other sui generis development that will generate employment.

¹⁹³ The reduced land take threshold afforded to employment development within rural / edge of urban localities reflects the increased prospect of there being less sensitivity adjacent land uses. New employment development is more often situated in localities that already experience some business / commercial development rather than more sensitive existing residential neighbourhoods.

¹⁹⁴ The same justification applies to a reduced land take threshold for employment development within urban / built-up areas as discussed in footnote 189.

¹⁹⁵ All NSIP projects that fall under part 3, section 14, sub-section 1 (b), (f) and (g) of the Planning Act 2008 -

<http://www.legislation.gov.uk/ukpga/2008/29/contents>

¹⁹⁶ The same justification applies to a reduced land take threshold for sub-national infrastructure within rural and / or edge of urban localities as discussed in footnote 189

¹⁹⁷ The same justification applies to a reduced land take threshold for sub-national infrastructure within urban / built-up areas as discussed in footnote 189

Appendix 3 | MCA implementation schedule

A3.1 The MCA implementation schedule is designed to assist Gloucestershire's local planning authorities (i.e. boroughs, districts, and city) in assessing mineral site safeguarding matters in accordance with policy MS02. The schedule includes the type of non-minerals development proposals within Gloucestershire's Mineral Consultation Areas (MCAs) that do not require formal consultation with the Minerals Planning Authority (MPA) to establish whether a land use conflict may exist and / or that mitigation will be necessary to avoid prejudicing the operations of existing mineral workings of planned working in the future.

A3.2 All non-minerals development proposals **included** on the schedule do not need to be assessed against the criteria set out under policy MS02.

Non-minerals development proposals within a MCA that will <u>NOT</u> require consultation with the Mineral Planning Authority (MPA): -
All development on land, which has already been allocated within an adopted / or emerging local plan and where no specific detailed policy requirement exists to consult the MPA.
Infill development ¹⁹⁸ that is within a defined settlement boundary or settlement limit
All minor householder development within the curtilage of an existing dwelling house
All temporary development granted for no more than 5 years (excluding any renewal of temporary permission)
Amendments to extant permissions (only if no additional land take is involved)
All development for minor works such as alternations to existing buildings that involve no additional land take and boundary treatments and bus shelters
All telecommunications development
All other types of planning-related consents for advertisements; listed building consent; conservation area consent; works to trees; and the removal of hedgerows

¹⁹⁸ For the purposes of policy MS02 infill development occurs where it is enclosed on at least two sides by functioning and previously developed land.

Appendix 4 | Safeguarded mineral infrastructure sites

Type of safeguarded mineral infrastructure facility	Site location
Wharfage with storage / handling / processing potential	The Docks, Sharpness, Berkeley, GL13 9UX
	Land next to Gloucester & Sharpness Canal and adjacent to The Old Log Pond, Bristol Road, Gloucester, GL2 5DH
Concrete batching plant	Land at Huntsman's Quarry, Buckle Street, Naunton, GL54 3BA
	Land at the Old Bakery, Lower Tuffley Lane, Gloucester, GL2 5DP
	Land at Netherhills, Fromebridge Lane, Whitminster, GL2 7PD
	Land at Claydon Pike Works, Claydon Pike, Lechlade, GL7 3DT
	Land at Swindon Road, Cheltenham, GL51 9NB
	Hayricks Wharf, Tewkesbury Road, Cheltenham, GL51 9AA
	Land at Barnwood Junction, Myers Road Off Horton Road, Gloucester, GL1 3QA
	The Old Ryeford Sawmills, Ryeford Industrial Estate, Stonehouse, GL10 3HE
	The Old Log Pond, Bristol Road, Gloucester, GL2 5DH
	Land at Golden Valley, Gloucester Road, Cheltenham, GL51 0TT
	Land at Ruardean Hill, Drybrook, GL17 9AR
Coated Road stone Plant	Land at Stowfield Quarry, Staunton Road, Coleford GL16 8NS
	Land at Clearwell Quarry, Stowe Green, St. Briavels, GL15 6QW
Concrete Products Plant	Land at Huntsman's Quarry, Buckle Street, Naunton, GL54 3BA

Sites for handling and / or processing and distributing recycled and secondary aggregates	Land at the Old Airfield, Moreton Valence, GL2 7NA
	Land at Netherhills, Fromebridge Lane, Whitminster, GL2 7PD
	Land at Allstone, Myers Rd, Gloucester, GL1 3QD
	Land off Buckle Street, Honeybourne, Evesham, WR11 7QE
	Land at Overton Farm, Maisemore, GL2 8HR
	Land at Javelin Park, Haresfield, GL10 3DP

Appendix 5 | Summary forecast of aggregate supplies and provision figures

10-year rolling average of annual sales for primary land-won aggregates from within Gloucestershire (2005-2014 inclusive): -

- 1.517 million tonnes per annum for crushed rock
- 0.788 million tonnes per annum for sand and gravel;

Source data: 4th LAA for Gloucestershire

Remaining reserves of primary land-won aggregates from within Gloucestershire as at the end of 31/12/2014: -

- 25.99 million tonnes for crushed rock;
- 5.46 million tonnes for sand and gravel

Source data: 4th LAA for Gloucestershire

Total aggregates provision requirement in years			
Crushed Rock		Sand & Gravel	
Years prior to adoption (2015-2017) #	3	Years prior to adoption (2015-2017) #	3
Plan period (2018-2032) ##	15	Plan period (2018-2032) ##	15
Landbank at end of plan (2033-2042) ###	10	Landbank at end of plan (2033-2039) ###	7
Total requirement (years)	28	Total requirement (years)	25

Included because reserve data is only up until 31/12/2014 at this time;

See NPPF – paragraph 157, bullet 2;

See NPPF – paragraph 145, bullet 6

Mineral	A. Requirement (years)	B. Annual provision (mt)	C Total requirement	D. Landbank as at 31/12/2014	Provision requirement for plan C-D
Carboniferous Limestone	28	*1.0619	29.733	*** 15.67	14.063
Jurassic Limestone	28	** 0.4551	12.743	*** 10.32	2.423
Total Crushed Rock	28	1.517	42.476	25.99	16.486
Sand & Gravel	25	0.788	19.7	5.46	14.24

* Based on 70% of 1.517mt

** Based on 30% of 1.517mt

*** Taken from the 4th Gloucestershire's Local Aggregate Assessment (LAA): -

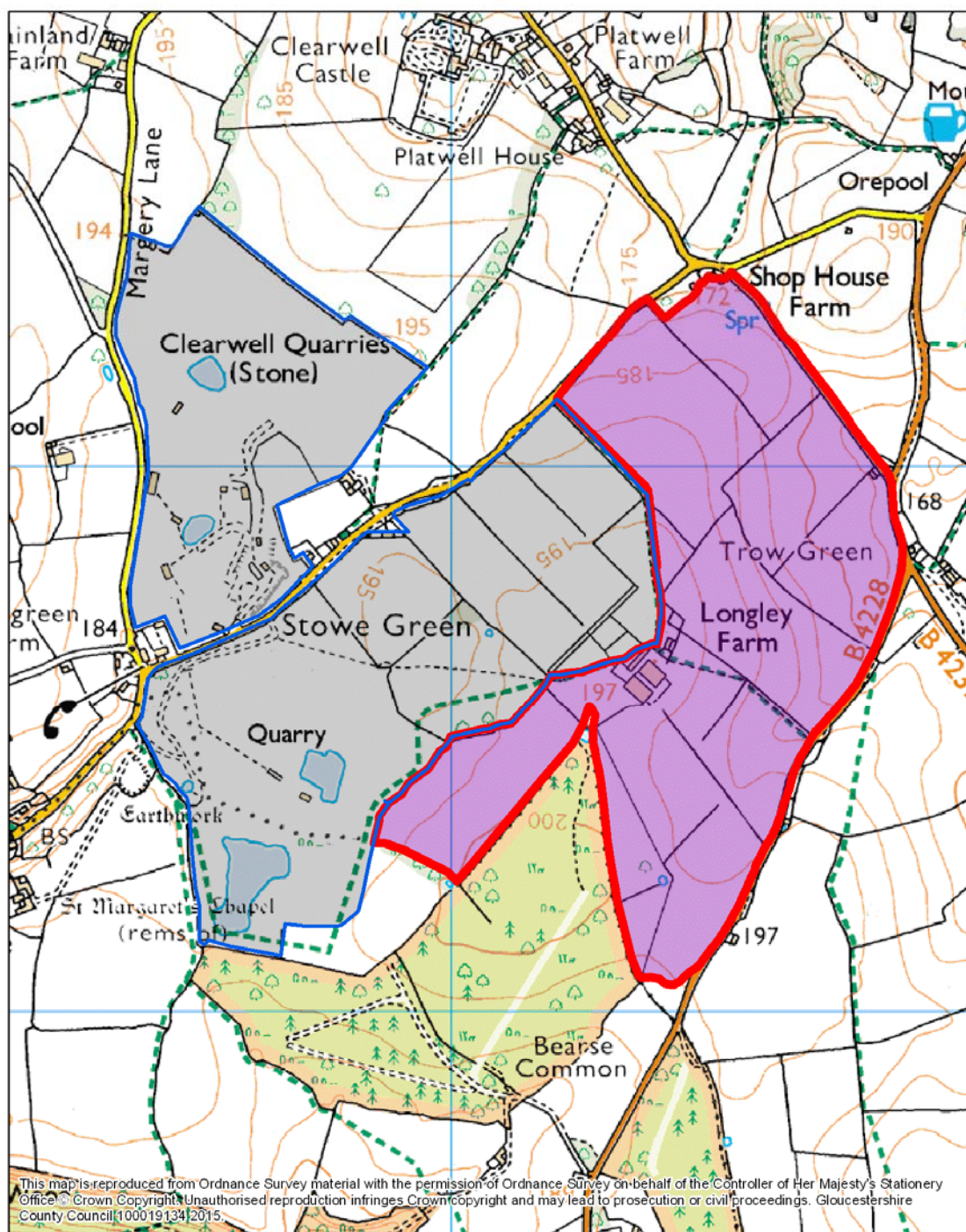
<http://www.gloucestershire.gov.uk/extra/article/115911/Local-Aggregates-Assessment>

Appendix 6 | Detailed development requirements for plan allocations

- Allocation 01 : Preferred Area at Stowe Hill / Clearwell;
- Allocation 02 : Preferred Area at Drybrook;
- Allocation 03 : Preferred Area at Stowfield;
- Allocation 04 : Preferred Area at Daglingworth;
- Allocation 05 : Preferred Area at Huntsman's;
- Allocation 06 : Specific Site at Manor Farm, Kempsford;
- Allocation 07 : Preferred Area at Redpool's Farm, Twynning;
- Allocation 08 : Area of Search at Lady Lamb Farm, Fairford;
- Allocation 09 : Areas of Search at Land between Kempsford & Whelford
- Allocation 10: Areas of Search at Down Ampney and Charlham Farm

Allocation 01 – Preferred Area at Stowe Hill / Clearwell

Aggregate type	Forest of Dean (Carboniferous) Limestone		
Potential Yield	Between 10 and 17 mt	Site Area	c. 54
District	Forest of Dean	Parish	Newland



- Preferred Area
- Existing Quarries



Stowe Hill/Clearwell



Detailed Development Requirements for the Stowe Hill / Clearwell Preferred Area		
<i>Theme</i>	<i>Specific Requirement</i>	<i>Linked to the delivery of plan objectives</i>
Landscape & Visual Impact	A Landscape & Visual Impact Assessment will be necessary, which will analyse the sensitivity of national landscape character NCA 105 (Forest of Dean and Lower Wye) and the regional / local level classification – The Limestone Plateau landscape character type and the Tidenham Chase landscape character area, which are both described in the Forest of Dean Landscape Character Assessment. The landscape impact on the Wye Valley AONB, which lies less than 1km of the Preferred Area, will also require careful consideration. In addition, potential visual impacts on nearby sensitive receptors will need to be scrutinised. These include: - the individual properties, farms and agricultural premises that surround the parameter of the Preferred Area, the properties that form the hamlet of Trow Green; the settlements of Clearwell and Bream; nearby sections of the B4231 / Bream Avenue and B4228; and the network of paths and recreational routes in the locality. Where potential impacts are identified and mitigation is required, due attention should be given to: - the early and progressive installation of grassed, perimeter screen mounds; the retention of existing hedgerows and field boundary vegetation within the Preferred Area for as long as possible; a stand-off area adjoining the Bears Common woodland; and a phasing strategy that will see mineral working from the higher ground outwards with completion on the west side of the ridge before moving eastwards.	ENV, LC
Highways	The permitted, but unimplemented access off the B4228 into the existing Stowe Hill Quarry should be utilised ¹⁹⁹ . This is in preference to creating any new vehicular access for the purpose of the Preferred Area or retaining the current operational access into the existing Clearwell Quarry	MM
Operational Matters / Site Infrastructure	The existing infrastructure within Clearwell Quarry should be removed to allow progressive restoration in accordance with the extant permission. Provision should be made for new site infrastructure to support the Preferred Area to be sited within the existing Stowe Hill Quarry. The capacity of the Clearwell / Stowe Hill Quarry complex including the Preferred Area should be maintained at the permitted maximum overall output level of 600,000tpa ²⁰⁰ . A new maximum output level would only be considered where this can be demonstrated to be acceptable in planning terms.	MM, ENV, LC
ProW	An assessment of the PRoW network should be undertaken with particular attention given to paths RNE 66/1, RNE 67/1 and FSB 138/1. Advice should be sought from the Local Highways Authority regarding any proposals to temporarily divert or permanent re-routing any of the potentially affected paths.	LC
Local Communities	An analysis of potential amenity impacts will be necessary. Careful consideration should be paid to the local communities made up of the individual residential properties, farms and commercial enterprises located nearby to the Preferred Area and those that comprise the nearby hamlets of Stowe, Stowe Green, Trow Green, Mork and Lower Cross and the villages of Clearwell, Sling and St. Briavels	LC

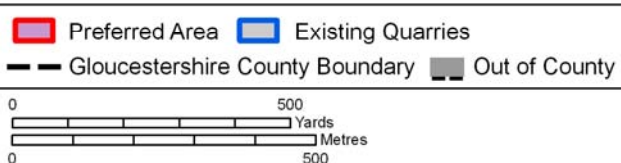
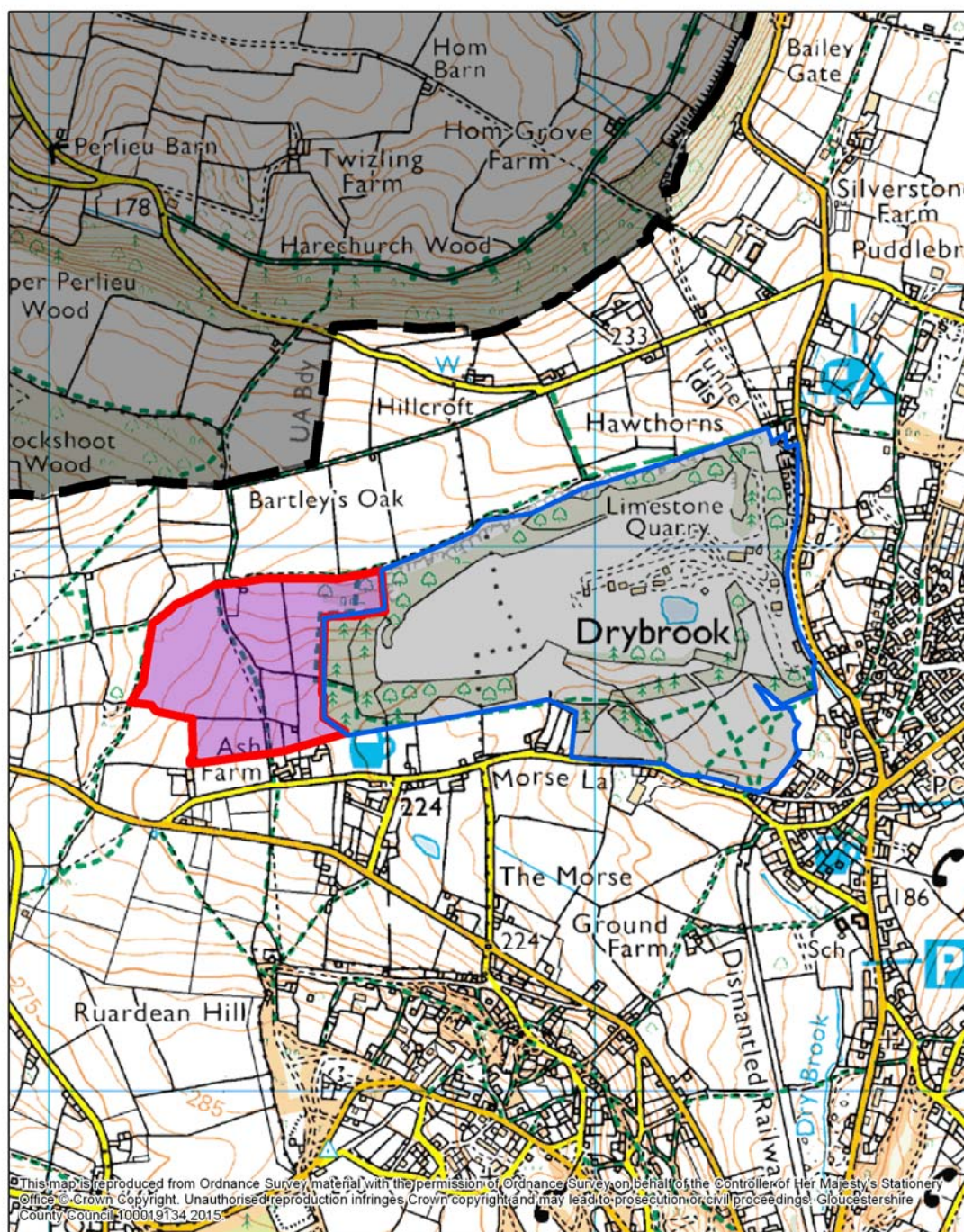
²⁰⁰ Planning search reference: - 09/0072/FDMAJM – Phased relocation and replacement of the stone processing plant, office, staff facilities and workshop from Clearwell Quarry to Stowe Hill Quarry, erection of an environmental bund to attenuate noise, a new haul road and road access onto the B4228 and accompanying weighbridge/wheel wash facilities at Clearwell Quarry Stowe Green St Briavels Lydney.

Natural Environment	An assessment of the natural environment surrounding and within the Preferred Area will be required. This should consider potential impacts, their significance and possible mitigation measures, if required, on the following environmental designations in the locality: - Wye Valley & FoD Bat Sites SAC, Wye Valley Woodlands SAC, Old Bow & Old Ham Mines SSSI, Devil's Chapel Scowles SSSI, Tudor Farm Bank SSSI, and the Slade Brook SSSI. It will also need to investigate and report upon possible impacts on priority habitats and / or priority species, which have been recorded adjacent or near to the Preferred Area. An analysis of whether any significant effects on the Wye Valley & FoD Bat Sites SAC and / or Wye Valley Woodlands SAC either alone or in combination with other plans or projects, are likely to arise must also be carried out through formal screening to establish the need for an Appropriate Assessment (AA).	ENV
Geo-diversity	An assessment of potential impacts on Stowe Green / Clearwell Quarries RIGS no. 236 should be carried out, which incorporates possible mitigation measures, if required. Advice should be sought in this regard from the Gloucestershire Geology Trust	ENV
Archaeology / Historic Environment	An archaeological assessment should be undertaken concerning the archaeological interest associated with the Preferred Area. This must include both a pre-determination evaluation to establish the presence and significance of heritage assets; and a mitigation strategy that could introduce constraints upon future mineral working and associated activities in order to preserve key heritage assets and their settings; and the appropriate and proportionate recording and / or excavation of all other heritage assets.	ENV
Water Resources	A hydrogeological impact assessment should be completed, which will consider potential risks, their significance and possible mitigation measures, if required, on the nearby surface water bodies up to 1km from the Preferred Area. Particularly attention will need to be paid to the possible impacts / risk to the Slade Brook – an active tufa-forming stream of national importance, which may be sensitive to local hydrological change. A review of the underlying geology should also be carried out to identify the presence of a designated aquifer. This may result in the need to investigate hydrological characteristics in terms of transmissivity (i.e. groundwater flow rate); porosity; yield; and hydraulic conductivity; and possible risk from contamination. In preparing any hydrological mitigation, attention should be given to reducing the impact of any dewatering that may be proposed through sub-dividing the working area into smaller cells to reduce the active perimeter; and restricting the practice during storm events to ensure receiving waters have appropriate capacity for the flow. For minimising the risk to water quality, bunded tanks and drip trays to prevent spillages should be proposed, along with settlement (silt) ponds or proprietary equipment	ENV, LC
Flood Risk	A flood risk assessment should be carried out, which affords attention to the possibility of elevated risks associated with groundwater flooding and increased surface water run-off. Potential sensitive receptors surrounding the site should be investigated. Mitigation to minimise the impact of flood risk that require consideration include: - the placing of any buildings, storage and stockpiling and other site infrastructure away from areas susceptible to surface water flooding; and the provision of appropriate flow balancing using sustainable drainage systems.	ENV, LC

Restoration opportunities & constraints	<p>Integration of restoration proposals with the existing Clearwell and Stowe Hill Quarry complex restoration plans should be explored including agriculture and / or woodland after-uses, along with opportunities to achieve biodiversity enhancements. This may be realised through contributing to the Wye Valley Woods SNAs and facilitating the commuting patterns of protected Bats using hedgerow planting. Woodland and / or support for natural regeneration of the area may prove particularly relevant nearby to the existing established wooded areas such as Bearse Common and along the lower, steeper slopes and benches. Furthermore, any restored and infilled parcels of land using inert materials should not exceed the pre-working ground level and must provide safe pathways for groundwater to move around or through in order to avoid creating heightened flood risk.</p>	RA
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Allocation 02 – Preferred Area at Drybrook

Aggregate type	Forest of Dean (Carboniferous)		
Potential Yield	< 4mt (< 3.2mt up to gas pipeline)	Site Area	Approx. 10ha
District	Forest of Dean	Parish	Ruardean



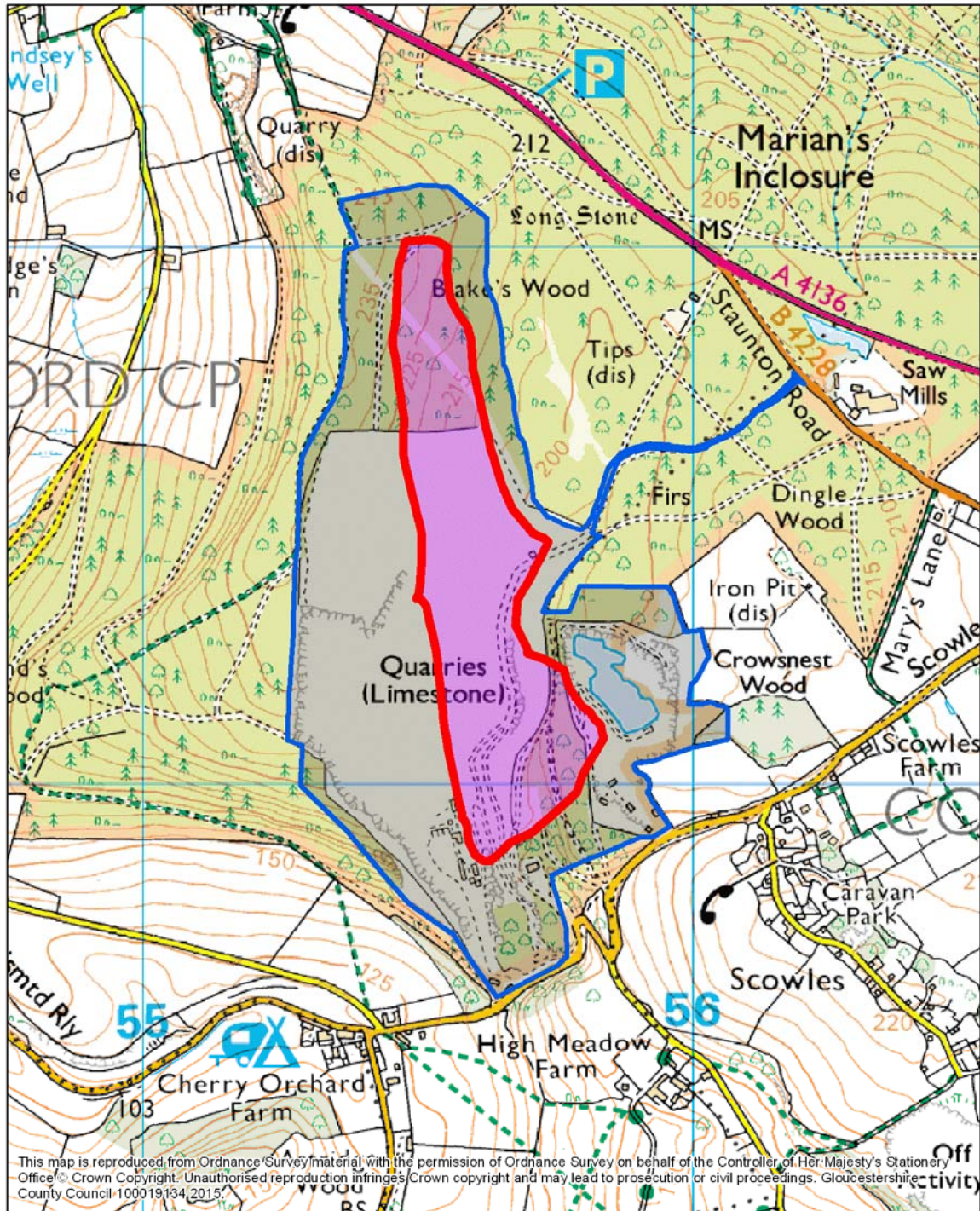
Detailed Development Requirements for the Drybrook Preferred Area		
<i>Theme</i>	<i>Specific Requirement</i>	<i>Linked to the delivery of plan objectives</i>
Landscape & Visual Impact	A Landscape & Visual Impact Assessment will be necessary, which will analyse the sensitivity of national landscape character NCA 105 (Forest of Dean and Lower Wye) and the regional / local level classification – The Limestone Hills landscape character type and the Ruardean Hills landscape character area, which are both described in the Forest of Dean Landscape Character Assessment. Consideration should also be given to potential visual impacts on nearby sensitive receptors that may include: - individual properties, farms and agricultural premises particularly those located at the western end of Morse Lane, the properties that comprise the south east and south west of Drybrook; the settlement of Ruardean, and the network of paths and recreational routes in the locality. Where potential impacts are identified and mitigation is required, due attention should be given to bunding and hedgerow planting focused on screening views from the nearby receptors mentioned above. Integration with previously implemented landscape mitigation measures at Drybrook quarry should also be assessed.	ENV, LC
Highways	The access for the existing Drybrook Quarry should be utilised. This is in preference to creating a new vehicular access for the purpose of the Preferred Area. A Transport Assessment may be necessary if an extension of time is required to use existing site infrastructure.	MM
Operational Matters / Site Infrastructure	Site infrastructure contained within existing Drybrook Quarry should be utilised. Separate provision should not be made within the Preferred Area. The capacity of the Drybrook Quarry complex including the Preferred Area should be maintained at or near to levels identified in the supporting application information for the most recent permission at Drybrook Quarry ²⁰¹ .	ENV, LC, MM
PRoW	An assessment of the PRoW network should be undertaken with particular attention given to paths DRD 11 and 43. Advice should be sought from the Local Highways Authority regarding any proposals to temporarily divert or permanent re-routing either of the potentially affected paths.	LC
Local Communities	An analysis of potential amenity impacts will be necessary. Careful consideration should be paid to the local communities made up of the individual residential properties, farms and commercial enterprises located nearby to the Preferred Area and those that comprise the settlements of Ruardean, Ruardean Hill, Drybrook and Puddlebrook.	LC
Natural Environment	An assessment of the natural environment surrounding the Preferred Area will be required. This should consider potential impacts, their significance and possible mitigation measures, if required, on the following nearby (i.e. less than 1km) environmental designations: - Woodlands near Hope Mansell Local Wildlife Site (Herefordshire), Lea Bailey Enclosure Local Wildlife Site (Herefordshire) and Ruardean Hills KWS. It will also need to investigate and report upon possible impacts on priority habitats and / or priority species, which have been recorded adjacent or within 1km of the Preferred Area. An analysis of whether any significant effects on internationally and nationally designated sites may arise must also be incorporated into the assessment.	ENV

²⁰¹ Planning search reference: - 14/0032/FDMAJM – Variation of condition 2 to extend the time period for completion of quarrying and restoration on appeal reference APP/T1600/A/90/155527 dated 27.01.1992 [for the winning and working of minerals, erection of processing plant and associated landscape works] at Drybrook Quarries Ltd Hawthorns Road Drybrook Gloucestershire

Archaeology / Historic Environment	An assessment of heritage assets should be undertaken for the Preferred Area that incorporates an analysis of its potential archaeological interest. This must include both a pre-determination evaluation to establish the presence and significance of heritage assets; and a mitigation strategy that could introduce constraints upon future mineral working and associated activities in order to preserve key heritage assets and their settings; and the archaeological recording and / or excavation of all other heritage assets. Of potential relevance to the Preferred Area is evidence of early activity from the prehistoric or Roman period, which has been drawn from recordings at the adjacent Drybrook quarry and the surrounding landscape. This will need to be appropriately evaluated.	ENV
Water Resources	A hydrogeological impact assessment should be completed, which will consider potential risks, their significance and possible mitigation measures, if required, on the following nearby surface water bodies (i.e. within 1km): - Cinderford Brook Source to Blackpool Brook, Dry Brook, Bailey Brook, Lodgegrove Brook, and quarry lagoons at the existing Drybrook quarry. The underlying geology, which has been classified as a Principal aquifer will also need to be analysed to establish its characteristics in terms of transmissivity (i.e. groundwater flow rate); porosity; yield; and hydraulic conductivity; and possible risk from contamination. In preparing any hydrological mitigation, attention should be given to reducing the impact of any dewatering through subdividing the working area into smaller cells to reduce the active perimeter; and restricting the practice during storm events to ensure receiving waters have appropriate capacity for the flow. For minimising the risk to water quality, bunded tanks and drip trays to prevent spillages should be proposed, along with settlement (silt) ponds or proprietary equipment.	ENV, LC
Flood Risk	A flood risk assessment should be carried out, which affords attention to the possibility of elevated risks associated with groundwater flooding and increased surface water run-off. Potential sensitive receptors include the residential properties and commercial premises of Ruardean, the northern side of Ruardean Hill and Drybrook. Mitigation to minimise the impact of flood risk that require consideration include: - the placing of buildings, storage and stockpiling and other site infrastructure away from areas susceptible to surface water flooding; and the provision of appropriate flow balancing using sustainable drainage systems.	ENV, LC
Restoration opportunities & constraints	Integration of restoration proposals with the existing Drybrook Quarry restoration plan should be explored including grassland and / or woodland after-uses, along with seeking opportunities to achieve biodiversity enhancements. This may prove particularly relevant nearby to existing established wooded areas and along the upper slopes and benches of the northern boundary, close to where a relatively recent plantation has developed. Furthermore, any restored and infilled parcels of land using inert materials should not exceed the pre-working ground level and must provide safe pathways for groundwater to move around or through in order to avoid creating heightened flood risk.	RA

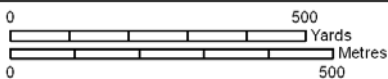
Allocation 03 - Preferred Area at Stowfield

Aggregate type	Forest of Dean (Carboniferous) Limestone		
Potential Yield	c. 7.4mt	Site Area	20ha
District	Forest of Dean	Parish	Coleford and Staunton Coleford



- Preferred Area
- Existing Quarries

Stowfield



Gloucestershire
COUNTY COUNCIL



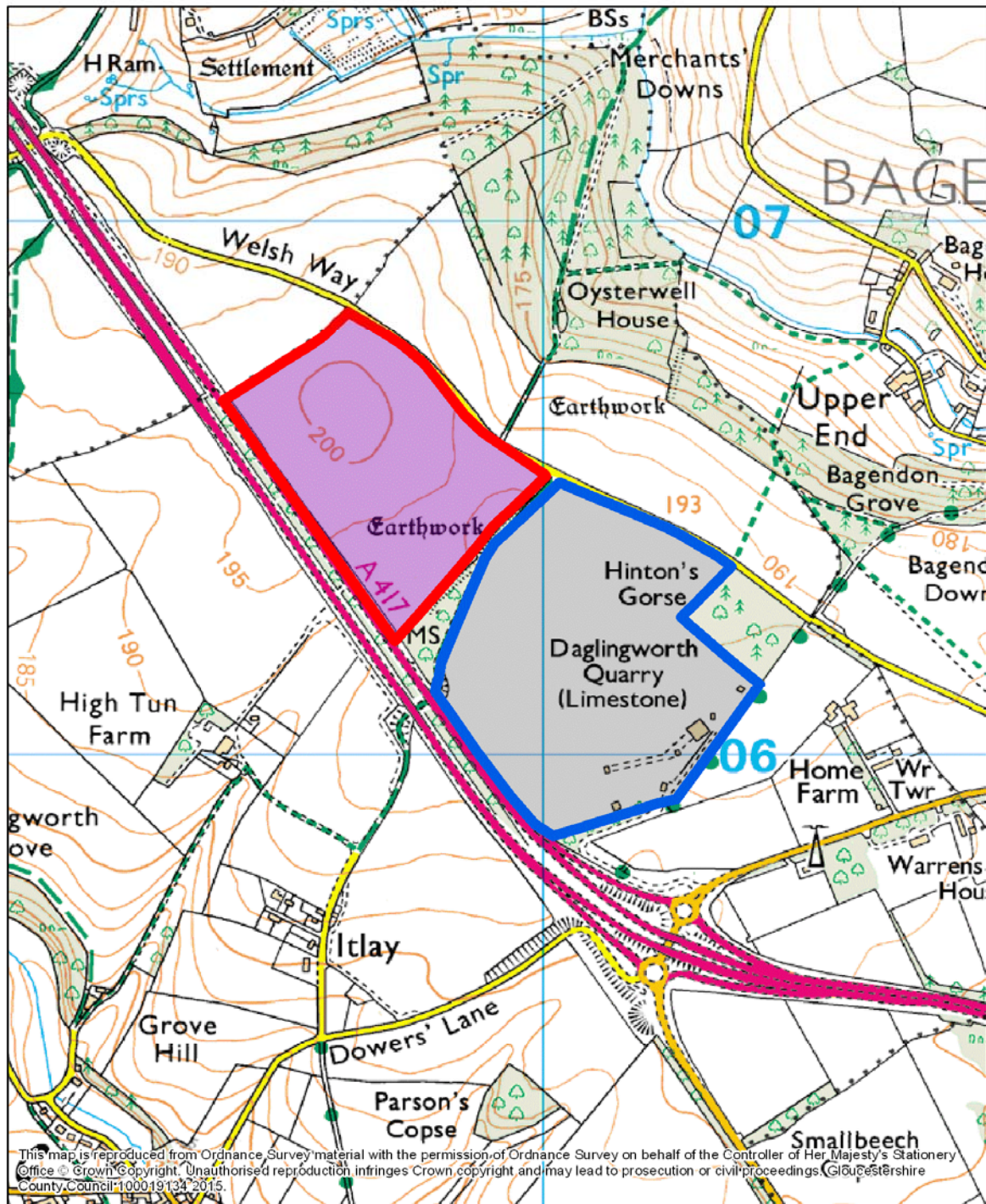
Detailed Development Requirements for the Stowfield Preferred Area		
<i>Theme</i>	<i>Specific Requirement</i>	<i>Linked to the delivery of plan objectives</i>
Landscape & Visual Impact	A Landscape & Visual Impact Assessment will be necessary, which must acknowledge the wider Wye Valley AONB designation that the Preferred Area is located within. This should be achieved by analysing the sensitivity of national landscape character NCA 105 (Forest of Dean and Lower Wye) and the regional / local level classification – The Limestone Hills landscape character type and the Highmeadow Woods and Staunton Hills landscape character area, which are both described in the Forest of Dean Landscape Character Assessment. In addition, the presence of the Preferred Area within the Wye Valley AONB's Landscape Management Zone 10 – Dean Edge Limestone Hills should also be taken into account.	ENV, LC
Highways	The access for the existing Stowfield Quarry should be utilised. A Transport Assessment may be necessary if an extension of time is required to use existing site infrastructure.	MM
Operational Matters / Site Infrastructure	Site infrastructure contained within existing Stowfield Quarry should be utilised. The capacity of Stowfield Quarry including the Preferred Area should be maintained at the permitted maximum overall output level (This is present 800,000 tpa, but subject to meeting conditions of a s.106 legal agreement could rise to 1.2mtpa. A quarterly restriction of no more than 400,000 tonnes is also in place) ²⁰² .	ENV, LC
Local Communities	An analysis of potential amenity impacts will be necessary. Careful consideration should be paid to the local communities made up of the individual residential properties, farms and commercial enterprises located nearby to the Preferred Area and those that comprise the nearby hamlets and villages of Crossways, Scowles, Staunton and Newland.	LC
Natural Environment	An assessment of the natural environment surrounding and within the Preferred Area will be required. This should consider potential impacts, their significance and possible mitigation measures, if required, on the following nearby (i.e. less than 1km) environmental designations: - Wye Valley Woodlands Sites SAC; Dingle Wood SSSI; Swanpool Wood & Furnace Grove SSSI; Blakes Wood KWS; Whitecliffe Recreation Ground KWS; and Staunton Woods KWS. An analysis of whether any significant effects on the Wye Valley Woodlands Sites SAC either alone or in combination with other plans or projects, are likely to arise must also be carried out through formal screening to establish the need for an Appropriate Assessment (AA).	ENV
Water Resources	A hydrogeological impact assessment should be completed, which will consider potential risks, their significance and possible mitigation measures, if required, on the nearby surface water bodies up to 1km. A review of the underlying geology should also be carried out to identify the presence of a designated aquifer. This may result in the need to investigate hydrological characteristics in terms of transmissivity (i.e. groundwater flow rate); porosity; yield; and hydraulic conductivity; and possible risk from contamination. In preparing any hydrological mitigation, attention should be given to reducing the impact of any dewatering that may be proposed through sub-dividing the working area into smaller cells to reduce the active perimeter; and restricting the practice during storm events to ensure	ENV, LC

²⁰² Planning search reference: - 09/0013/FDMAJM – Extension to Stowfield and Rogers Quarries for the extraction of dolomitic limestone at Stowfield Quarry Scowles Road Scowles Coleford Gloucestershire

	receiving waters have appropriate capacity for the flow. For minimising the risk to water quality, bunded tanks and drip trays to prevent spillages should be proposed, along with settlement (silt) ponds or proprietary equipment.	
Flood Risk	A flood risk assessment should be carried out, which affords attention to the possibility of elevated risks associated with groundwater flooding and increased surface water run-off. Potential sensitive receptors surrounding the site should be investigated. Mitigation to minimise the impact of flood risk that require consideration include: - the placing of any buildings, storage and stockpiling and other site infrastructure away from areas susceptible to surface water flooding; and the provision of appropriate flow balancing using sustainable drainage systems.	ENV, LC
Restoration opportunities & constraints	Full integration of restoration proposals with the existing Stowfield Quarry restoration plan will be required. This presently includes a strategy of minimal landscaping and natural re-colonisation processes.	RA

Allocation 04 - Preferred Area at Daglingworth

Aggregate type	Cotswolds (Jurassic) Limestone		
Potential Yield	9mt	Site Area	17ha
District	Cotswold	Parish	Daglingworth



- Preferred Area
- Existing Quarries

Daglingworth



Gloucestershire
COUNTY COUNCIL

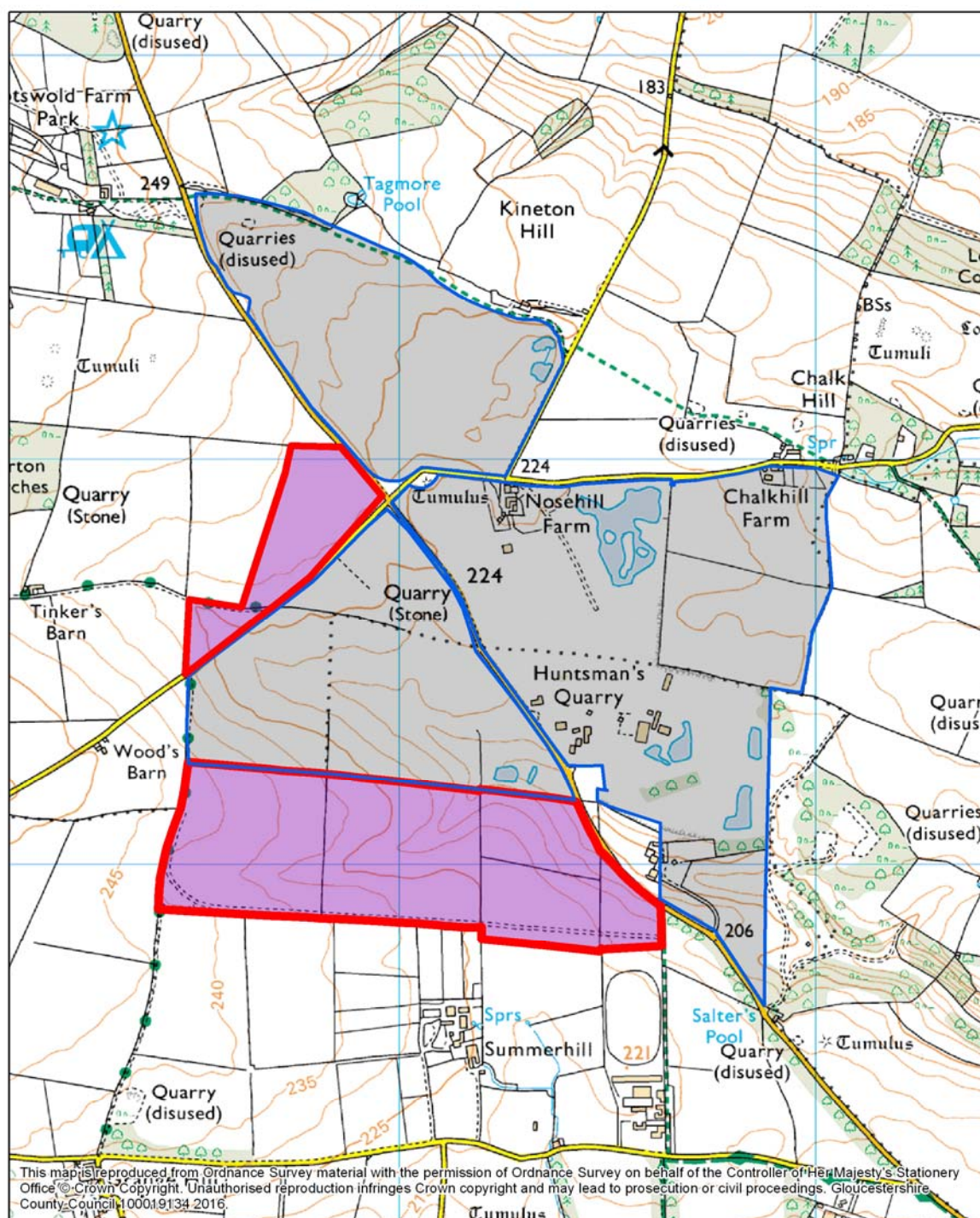


Detailed Development Requirements for the Daglingworth Preferred Area		
<i>Theme</i>	<i>Specific Requirement</i>	<i>Linked to the delivery of plan objectives</i>
Landscape & Visual Impact	A Landscape & Visual Impact Assessment will be necessary, which must acknowledge the wider Cotswold AONB designation that the Preferred Area is located within. This should be achieved by analysing the sensitivity of national landscape character NCA 107 (Cotswolds) and the regional / local level classification – The High Wold Dip Slope landscape character type and area. Consideration should also be given to potential visual impacts on nearby sensitive receptors that may include a number of individual properties, farms and agricultural premises; the settlements of Woodmancote and Bagendon; several nearby paths and recreational routes and the highway network along the A417, Welsh Way and Cutham Lane. Where potential impacts are identified and mitigation is required, due attention should be given to facilitating new planting opportunities along the boundary with the A417 and also the future maintenance of existing planting along the north east, north west and south east of the Preferred Area.	ENV, LC
Soil Resources	A soil impact assessment should be undertaken, which identifies potential impacts and possible mitigation, if required, particularly in light of the presence of agricultural land of BMVAL quality grade 3b.	ENV, LC
Highways	The existing access into the existing Daglingworth Quarry should be utilised. A new vehicular access for the purpose of the Preferred Area should not be proposed. For all non-local freight movements, the A417 should be employed as the preferred haulage route.	MM
Operational Matters / Site Infrastructure	Provision should be made for a service tunnel between the Preferred Area and the existing Daglingworth Quarry. This is to allow the movement of worked minerals for both use of the existing quarry infrastructure and onward export, whilst avoiding constraints that exist on the parcel of land between the two areas.	ENV, LC, MM
PRoW	An assessment of the PRoW network should be undertaken with particular attention given to paths BDH 3/2 and 10/1. Advice should be sought from the Local Highways Authority regarding any proposals to temporarily divert or permanent re-routing either of the potentially affected paths.	LC
Local Communities	An analysis of potential amenity impacts will be necessary. Careful consideration should be paid to the local communities that comprise the individual residential properties, farms and commercial enterprises located nearby to the Preferred Area and those which form the hamlets of Itlay and Upper End near to Bagendon.	LC
Natural Environment	An assessment of the natural environment surrounding and within the Preferred Area will be required. This should consider potential impacts, their significance and possible mitigation measures, if required, on the following nearby (i.e. less than 1km) environmental designations: - High Tun Farm KWS, Itlay KWS, Stancombe Grove & Oysterwell Wood KWS, Bagendon Grove & Oysterwell Wood KWS, Merchants Downs KWS, Daglingworth & Snakes Groves KWS, Duntisbourne Grove KWS and Five Acre Grove (Bagendon) KWS. It will also need to investigate and report upon possible impacts on priority habitats and / or priority species, which have been recorded within 1km of the Preferred Area. An analysis of whether any significant effects on internationally and nationally designated sites may arise must also be incorporated into the assessment.	ENV

Geo-diversity	An assessment of potential impacts on Daglingworth Quarry RIGS no. 165 should be carried out, which incorporates possible mitigation measures, if required. Advice should be sought in this regard from the Gloucestershire Geology Trust	ENV
Archaeology / Historic Environment	An assessment of heritage assets should be undertaken for the Preferred Area that incorporates an analysis of its potential archaeological interest. This must include both a pre-determination evaluation to establish the presence and significance of heritage assets; and a mitigation strategy that could introduce constraints upon future mineral working and associated activities in order to preserve key heritage assets and their settings; and the appropriate and proportionate recording and / or excavation of all other heritage assets. Of potential relevance to the Preferred Area, which will need to be evaluated, is the linear earthwork located close to the south eastern boundary and its setting; and other features associated with the historic settlement of Bagendon and their settings.	ENV
Water Resources	A hydrogeological impact assessment should be completed, which will consider potential risks, their significance and possible mitigation measures, if required, on the nearby surface water bodies up to 1km. A review of the underlying geology should also be carried out to identify the presence of a designated aquifer. This may result in the need to investigate hydrological characteristics in terms of transmissivity (i.e. groundwater flow rate); porosity; yield; and hydraulic conductivity; and possible risk from contamination. In preparing any hydrological mitigation, attention should be given to reducing the impact of any dewatering that may be proposed through sub-dividing the working area into smaller cells to reduce the active perimeter; and restricting the practice during storm events to ensure receiving waters have appropriate capacity for the flow. For minimising the risk to water quality, bunded tanks and drip trays to prevent spillages should be proposed, along with settlement (silt) ponds or proprietary equipment.	ENV, LC
Flood Risk	A flood risk assessment should be carried out, which affords attention to the possibility of elevated risks associated with groundwater flooding and increased surface water run-off. Potential sensitive receptors surrounding the site should be investigated. Mitigation to minimise the impact of flood risk that require consideration include: - the placing of any buildings, storage and stockpiling and other site infrastructure away from areas susceptible to surface water flooding; and the provision of appropriate flow balancing using sustainable drainage systems.	ENV, LC
Restoration opportunities & constraints	Consideration should be given to facilitating agriculture and / or woodland as possible beneficial after-uses. This should occur alongside opportunities to achieve both local biodiversity and geo-diversity enhancements. In respect to the latter, the potential of a lookout viewpoint(s) alongside relevant sections of path BDH3 should be assessed.	RA

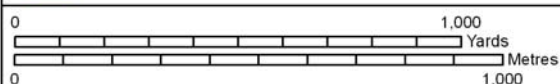
Allocation 05 - Preferred Areas at Huntsman's

Aggregate type	Cotswolds (Jurassic) Limestone		
Potential Yield	Up to 10mt	Site Area	39ha
District	Cotswold	Parishes	Naunton and Temple Guiting



- Preferred Areas
- Existing Quarries

Huntsmans



Gloucestershire
COUNTY COUNCIL



Detailed Development Requirements for the Huntsman's Preferred Areas		
Theme	Specific Requirement	Linked to the delivery of plan objectives
Landscape & Visual Impact	<p>A Landscape & Visual Impact Assessment will be necessary, which must acknowledge the wider Cotswold AONB designation that the Preferred Area is located within. This should be achieved by analysing the sensitivity of national landscape character NCA 107 (Cotswolds) and that of the regional / local level classification – The High Wold landscape character type and area. Consideration should also be given to potential visual impacts on nearby sensitive receptors that may include a number of individual properties, farms and agricultural premises and numerous recreational paths and routes present in the locality.</p> <p>Specifically for the southern Preferred Area: - The sensitivity of the Sumerhill prehistoric site Scheduled Ancient Monument will need to be scrutinised. Where potential impacts are identified and mitigation is required careful consideration will need to be given to screening around the perimeter of the Preferred Area and particularly bolstering / gapping-up of existing hedgerows and boundary vegetation along Buckle Street (C103).</p> <p>Specifically for the western Preferred Area: - Particular attention should be paid to Bowl Barrows Scheduled Ancient Monuments and the campsite and Wildlife Walk associated with Cotswold Farm Park. Where potential impacts are identified and mitigation is required due attention should be given to: - gapping-up of existing vegetation and hedgerows along the eastern boundary at Snowhill Road to Chapel Ash and along Buckle Street (C103); the creation of grassland bunds around the perimeter of Preferred Area; and improvements to the existing dry-stone wall along the northern side of the access track linking to Tinker's Barn.</p>	ENV, LC
Soil Resources	A soil impact assessment should be undertaken, which identifies potential impacts and possible mitigation, if required, particularly in light of the presence of agricultural land of BMVAL quality grade 3a.	ENV, LC
Highways	The access arrangements at the existing Huntsman's quarry should be utilised rather than a new separate vehicular access for either of the Preferred Areas. A Transport Assessment may be necessary if an extension of time is required to use existing site infrastructure.	MM
Operational Matters / Site Infrastructure	Site infrastructure contained within existing Huntsman's quarry should be utilised. Alternative, separate provision should not be made within the Preferred Areas. The capacity of Huntsman's quarry complex including from the Preferred Areas should be maintained at the permitted maximum overall output level (500,000tpa) ²⁰³ . This includes for both any aggregates and non-aggregates worked at the Huntsman's quarry complex.	ENV, LC, MM
Local Communities	An analysis of potential amenity impacts will be necessary. Careful consideration should be paid to the local communities made up of the individual residential properties, farms and commercial and leisure enterprises located nearby to the Preferred Areas.	LC

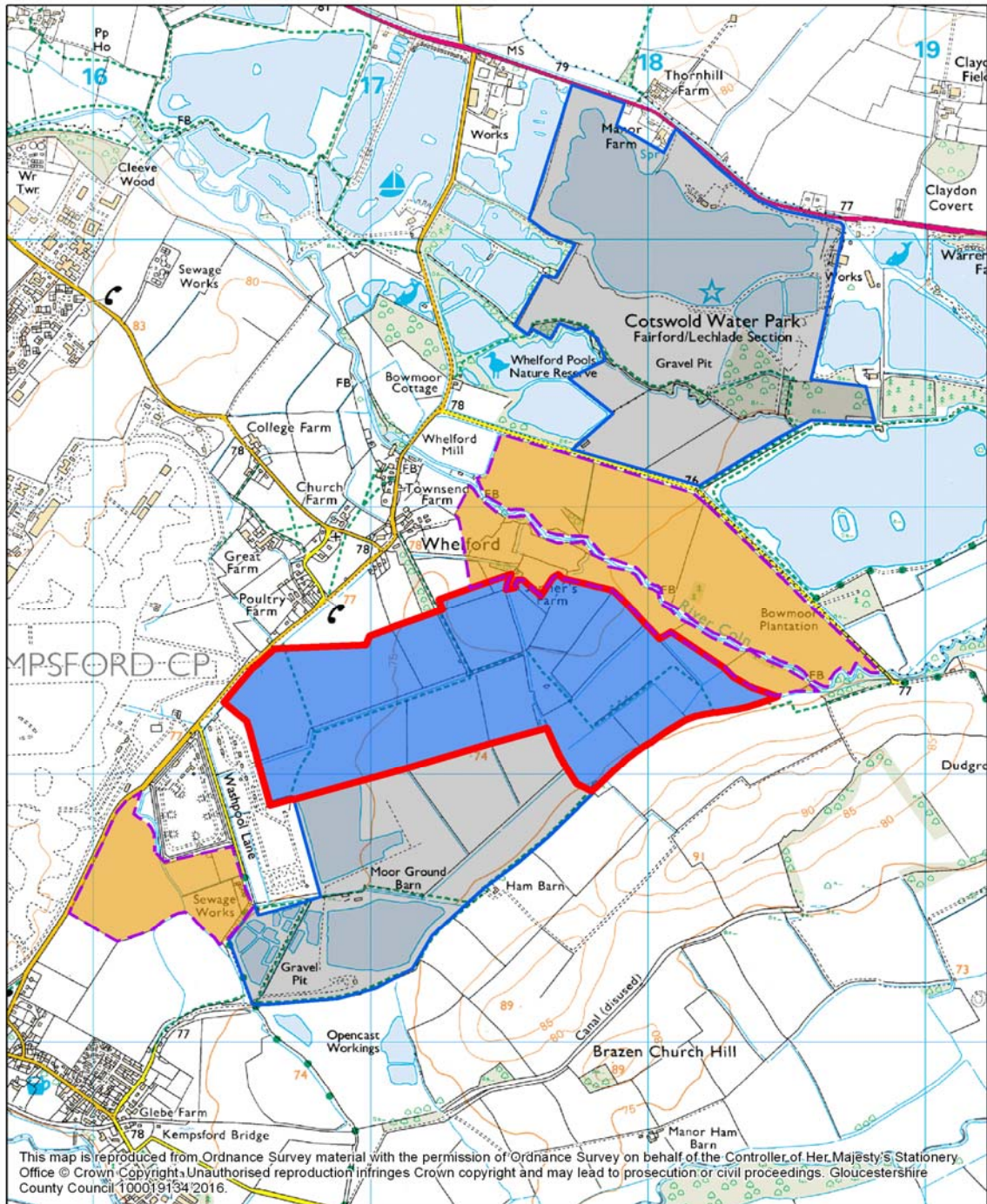
²⁰³ Planning search reference: - 06/0038/CWFUL – Deepening of the existing quarry floor by approximately 12 metres, to include a revision to the approved scheme of working, a revision to the approved restoration contours, and a programme for the development of a sequence of silt lagoons (reference CD.0165/1/X) at Huntsmans Quarry Naunton Gloucestershire

Natural Environment	An assessment of the natural environment surrounding and within the Preferred Areas will be required. This should consider potential impacts, their significance and possible mitigation measures, if required, on the following nearby (i.e. less than 1km) environmental designations: - Huntsman's Quarry SSSI, Barton Bushes SSSI, Warren Beds KWS and Barton Vale KWS. It will also need to investigate and report upon possible impacts on priority habitats and / or priority species, which have been recorded within 1km of the Preferred Area. An analysis of whether any significant effects on internationally and nationally designated sites may arise must also be incorporated into the assessment.	ENV
Geo-diversity	An appraisal of potential geo-diversity matters should be carried out. This should acknowledge previous recorded exposures of 'Cotswold Slates' and fossil-bearing rocks. Consideration should also be given to whether conservation of geo-diversity may be achievable and advice may be needed to this affect from the Gloucestershire Geology Trust, who have experience of engagement with previous mineral working at Huntsman's quarry (see RIGS site no.92)	ENV
Archaeology / Historic Environment	An assessment of heritage assets should be undertaken for the Preferred Areas that incorporates an analysis of its potential archaeological interest, particularly the presence of several Scheduled Ancient Monuments nearby. This must include both a pre-determination evaluation to establish the presence and significance of heritage assets; and a mitigation strategy that could introduce constraints upon future mineral working and associated activities in order to preserve key heritage assets and their settings; and the appropriate and proportionate recording and / or excavation of all other heritage assets.	ENV
Water Resources	A hydrogeological impact assessment should be completed, which will consider potential risks, their significance and possible mitigation measures, if required, on the following nearby surface water bodies (i.e. within 1km – 3km): - River Windrush, River Eye, several springs feeding an unnamed tributary of the Windrush; and small ponds and a small lake that relate the existing Huntsman's Quarry. The Preferred Areas is also located less than 1km of a Source Protection Zone Level 3 and the underlying geology, which has been classified as a Principal aquifer will also need to be analysed to establish its characteristics in terms of transmissivity (i.e. groundwater flow rate); porosity; yield; and hydraulic conductivity; and possible risk from contamination. In preparing any hydrological mitigation, attention should be given to reducing the impact of any dewatering through sub-dividing the working area into smaller cells to reduce the active perimeter; and restricting the practice during storm events to ensure receiving waters have appropriate capacity for the flow. For minimising the risk to water quality, bunded tanks and drip trays to prevent spillages should be proposed, along with settlement (silt) ponds or proprietary equipment.	ENV, LC
Flood Risk	A flood risk assessment should be carried out, focused on the possibility of elevated risks from groundwater flooding and increased surface water run-off. Potential sensitive receptors include Summerhill Farm (to the south) and the offices of the existing Huntsman's Quarry. Mitigation to minimise the impact of flood risk could include: - the placing of buildings, storage and stockpiling and other site infrastructure away from areas susceptible to surface water flooding; and the provision of appropriate flow balancing using sustainable drainage systems.	ENV, LC

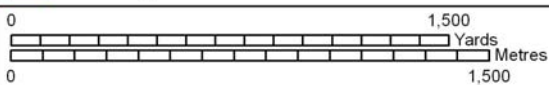
Restoration opportunities & constraints	<p>Integration of restoration proposals with the existing Huntsman's Quarry restoration plan should be explored. For the western Preferred Area consideration should also be given to the restoration plan concerning the existing Tinkers Barn Quarry. The Preferred Areas are also close by to the Brockhill B SNA and as such opportunities to support beneficial after-uses involving the creation of calcareous grassland should also be encouraged. Furthermore, it would be advantageous to re-create internal field boundaries and seek the reinstatement and / or building of new dry-stone walls as additional boundary features. All restored and infilled parcels of land using inert materials must not exceed the pre-working ground level and provide safe pathways for groundwater to move around or through in order to avoid heightened flood risk.</p>	RA
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Allocation 06 - Specific Site at Manor Farm, Kempford

Aggregate type	Sand & Gravel		
Potential Yield	3.2mt	Site Area (hectares)	85.5ha
District	Cotswold	Parish	Kempford



- Specific Site
- Areas of Search
- Existing Quarries



Manor Farm



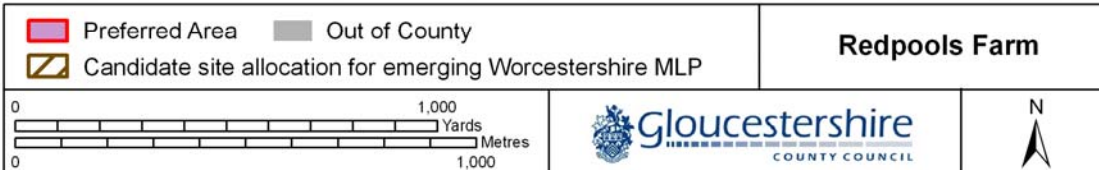
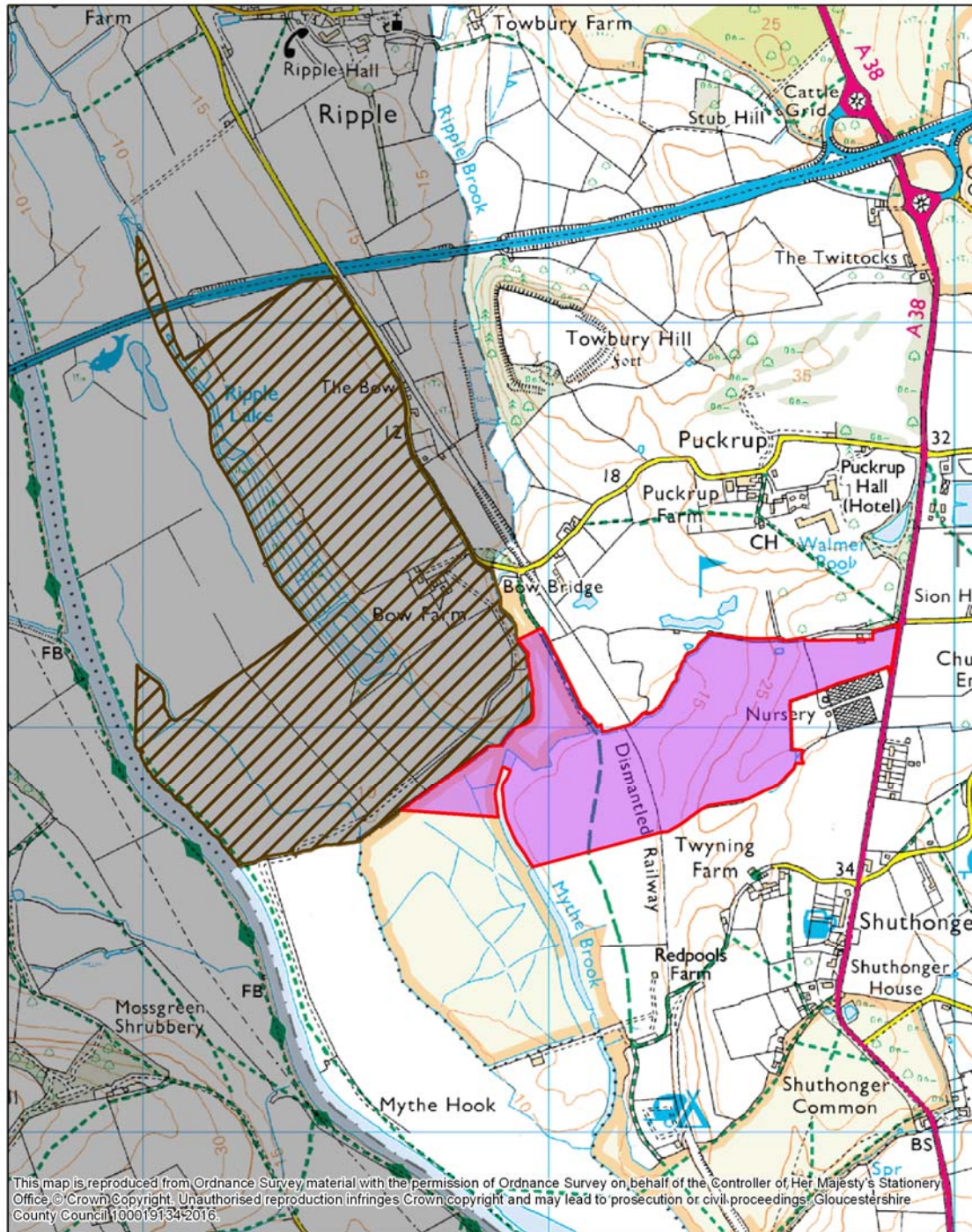
Detailed Development Requirements for the Manor Farm Specific Site		
<i>Theme</i>	<i>Specific Requirement</i>	Linked to the delivery of plan objectives
UPDATE as of June 2016 The planning application under search reference: – 13/0097/CWMAJM for the extension of sand and gravel extraction and associated activities at Manor Farm Quarry, Washpool Lane, Kempsford encompasses the Specific Site – Allocation 8 of the Draft Minerals Local Plan for Gloucestershire. The County Council Planning Committee at its meeting of the 12th May 2016, resolved to approve the application subject to the completion of a Section 106 legal agreement to secure off-site monitoring of ground and surface water levels and bird hazard management. In the event the legal agreement can be completed the Specific Site will be removed from the emerging plan as all relevant matters will have been resolved.		
Landscape & Visual Impact	A Landscape & Visual Impact Assessment will be necessary, which will analyse the sensitivity of national landscape character NCA 108 (Upper Thames Clay Vales) and the regional / local level classification – River Basin Lowland landscape character type and the Fairford and Lechlade landscape character area, that are both described in the Various Vales (Gloucestershire) Landscape Character Assessment. Consideration should also be given to potential visual impacts on nearby sensitive receptors that may include: - the properties that form the settlements of Whelford and Kempsford; the network of paths and recreational routes in the locality; and Whelford Road running north from Kempsford to Whelford. Where potential impacts are identified and mitigation is required, particular attention should be given to the placement and subsequent management of soil storage and noise attenuation bunds; and the maintenance of buffers around existing public footpaths through the site along with hedgerow planting and screening.	ENV, LC
Soil Resources	A soil impact assessment should be undertaken, which identifies potential impacts and possible mitigation, if required, particularly in light of the presence of agricultural land of BMVAL quality grades 3a and 3b.	ENV, LC
Highways	The access arrangements at the existing Manor Farm Quarry should be utilised rather than a new separate vehicular access for the Specific Site. A Transport Assessment may be necessary if an extension of time is required in order to use existing site infrastructure.	MM
Operational Matters / Site Infrastructure	Site infrastructure contained within existing Manor Farm Quarry should be utilised and the capacity of the existing Manor Farm Quarry including from the Specific Site should be maintained at the permitted maximum overall output level.	ENV, LC, MM
PRoW	An assessment of the PRoW network should be undertaken with particular attention given to paths BKD 19/1, 19/2, 27/1, 28/1, 34/1, 34/2. Advice should be sought from the Local Highways Authority regarding any proposals to temporarily divert or permanent re-routing of any the potentially affected paths.	LC
Local Communities	An analysis of potential amenity impacts will be necessary. Careful consideration should be paid to the local communities made up of the individual residential properties, farms and commercial enterprises located nearby to the Specific Site and those that comprise the villages of Kempsford and Whelford.	LC

Aerodrome Safeguarding	A full assessment of aviation safety should be carried out as the Specific Site lies within the safeguarding zone for RAF Fairford and RAF Brize Norton. It also falls within a zone where Instrumental Landing Systems (ILSs) may need to be operated. Any assessment must also consider statutory explosive and birdstrike safeguarding matters. DIO Safeguarding will be consulted on all minerals development proposals within the Specific Site.	LC
Natural Environment	An assessment of the natural environment surrounding and within the Specific Site will be required. This should consider potential impacts, their significance and possible mitigation measures, if required, on the following nearby (i.e. less than 1km) environmental designations: - Cotswold Water Park SSSI, Cotswold Water Park KWS and Jenner's Farm Field KWS. It will also need to investigate and report upon possible impacts on priority habitats and / or priority species, which have been recorded on, adjacent and within 1km of the Specific Site. An analysis of whether any significant effects on internationally and nationally designated sites may arise must also be incorporated into the assessment.	ENV
Archaeology /Historic Environment	An assessment of heritage assets should be undertaken for the Specific Site that incorporates an analysis of its potential archaeological interest. This must include both a pre-determination evaluation to establish the presence and significance of heritage assets; and a mitigation strategy that could introduce constraints upon future mineral working and associated activities in order to preserve key heritage assets and their settings; and the appropriate and proportionate recording and / or excavation of all other heritage assets.	ENV
Water Resources	A hydrogeological impact assessment should be completed, which will consider potential risks, their significance and possible mitigation measures, if required, on the following nearby surface water bodies (i.e. within 1km): - Dudgrove Brook and several of its local tributaries and network of drains; River Coln; Thames & Severn Canal; River Thames; Bowmoor Lake; Coln Park Lake; and a number of unnamed ponds concentrated to the north east of the Specific Site. The Specific Site is also located less than 1km of a Source Protection Zone Level 3 and the underlying geology has been classified as a Secondary Aquifer of High Vulnerability. This means the area is able to easily transmit pollution through to groundwater. In preparing any hydrological mitigation, attention should be given to reducing the impact of any dewatering through sub-dividing the working area into smaller cells to reduce the active perimeter; and restricting the practice during storm events to ensure receiving waters have appropriate capacity for the flow. For minimising the risk to water quality, bunded tanks and drip trays to prevent spillages should be proposed, along with settlement (silt) ponds or proprietary equipment.	ENV, LC
Flood Risk	A flood risk assessment should be carried out focused on the risk of river flooding, groundwater flooding and increased surface water run-off. Particular attention will also need to be given to the identification of Flood Zone area 2 over the site. Potential sensitive receptors that may be subject to flood risk and will therefore require scrutiny include the properties that comprise the village of Whelford and RAF Fairford. Mitigation to minimise the impact on flood risk could include: - the placing of buildings, storage and stockpiling and other site infrastructure away from areas susceptible to surface water flooding; and the provision of appropriate flow balancing using sustainable drainage systems.	ENV, LC

Restoration opportunities & constraints	<p>Integration of restoration proposals with the existing Manor Farm Quarry complex restoration plans should be explored. The re-instatement of footpaths and additional permissive paths to provide enhanced links to the surrounding public rights of way network is advisable as well as opportunities to achieve biodiversity enhancements, through contributing to the Coln Corridor SNA and Jenner's Farm Field KWS. Key features worth investigating include: - the creation a series of ditch structures and hedge and tree lines; and facilitating species rich, rough grassland alongside more traditional agriculture. The former of these features may also support a combined water management regime. Careful consideration must also be given to continued aviation safeguarding associated with RAF Fairford such as avoiding heightened risk of bird strike. Furthermore, whilst restoration back to original / or near original ground level should be the preferred approach, any infilling of parcels using inert materials must provide safe pathways for groundwater to move around or through in order to avoid creating heightened flood risk. Opportunities to contribute towards beneficial and supported landscape-scale change or enhancement as guided through the Cotswold Water Park Master Plan should also be examined.</p>	RA
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Allocation 07 - Preferred Area at Redpool's Farm, Twynning

Aggregate type	Sand & Gravel		
Potential Yield	c. 450-500,000mt	Site Area	32ha
District	Tewkesbury	Parish	Twynning



Detailed Development Requirements for the Redpool's Farm Preferred Area		
Theme	Specific Requirement	Linked to the delivery of plan objectives
Landscape & Visual Impact	A Landscape & Visual Impact Assessment will be necessary, which will analyse the sensitivity of national landscape character NCA 106 (Severn and Avon Vales) and the regional / local level classification –Unwooded Vale and River Meadows landscape character type and the Twyning Hills and Mythe Meadows landscape character areas that are described in the Various Vales (Gloucestershire) Landscape Character Assessment. Consideration should also be given to potential visual impacts on nearby sensitive receptors that may include: - a number of individual properties and farms that surround the Preferred Area and the network of paths and recreational routes in the locality. Of particular significance is the potential visual impact of distant views, most notable the eastern part of the site near to the A38, which is on elevated ground. Where potential impacts are identified and mitigation is required, attention should be given to a combination of mounding and boundary planting both of new vegetation and to enhance existing hedgerows and wooded areas and a strategy of phased and progressive working with site restoration linked to the changing elevation over the site	ENV, LC
Highways	A new access will be required onto the A38, vehicular limits and a routing strategy will need to be carefully considered. A full and detailed Transport Assessment should be carried out following advice provided from the Local Highways Authority.	MM
Operational Matters / Site Infrastructure	Site infrastructure is only likely to be achievable on the elevated, eastern side of the site due to the susceptibility to flooding at lower levels. Consequentially very carefully consideration will need to be given to potential amenity impacts on nearby sensitive receptors that are more concentrated in this area. Furthermore, appropriate capacity and other relevant operational limits will need to be explored. A wider mineral development strategy may also be necessary in the event that the adjacent site at Bow Farm in Worcestershire is to be included as an allocation within the emerging Worcestershire Minerals Local Plan ²⁰⁴ . The Bow Farm site will likely require access through the Redpool's Farm site in Gloucestershire and this should be factored into any mitigation proposals. Presently, no decision has been made by Worcestershire County Council as the MPA regarding the Bow Farm candidate allocation.	ENV, LC, MM
PRoW	An assessment of the PRoW network should be undertaken with particular attention given to path ATW 37/1. Advice should be sought from the Local Highways Authority regarding any proposals to temporarily divert or permanent re-route the potentially affected path.	LC
Local Communities	An analysis of potential amenity impacts will be necessary. Careful consideration should be paid to the local communities made up of the individual residential properties, farms and commercial and leisure enterprises located nearby to the Preferred Area and those that comprise the hamlets and villages of Church End; Puckrup and Shuthonger.	LC

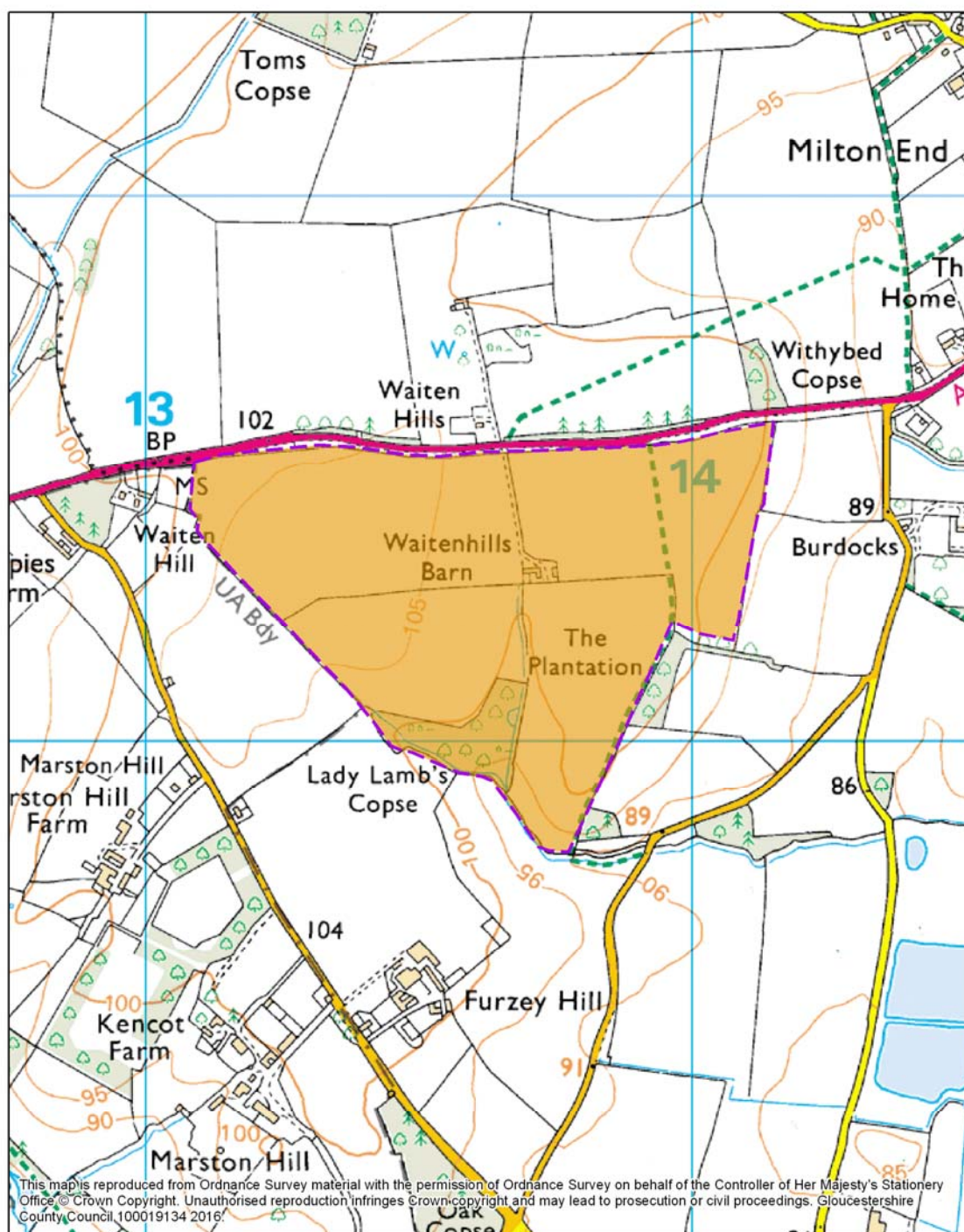
²⁰⁴ The Bow Farm site was presented to Worcestershire County Council as part of a representative to the 2nd Stage Consultation carried out between the end of 2013 and early 2014: -


http://www.worcestershire.gov.uk/downloads/file/521/minerals_local_plan_second_stage_consultation_responses

Natural Environment	An assessment of the natural environment surrounding and within the Preferred Area will be required. This should consider potential impacts, their significance and possible mitigation measures, if required, on the following nearby (i.e. less than 1km) environmental designations: - Mythe Railway KWS; Mythe Composite Site (lakes and reservoirs) KWS; and Brokeridge Common KWS all within Gloucestershire; and Ripple Brook LWS, Ripple Lake and The Knapps LWS, Ripple Meadow LWS and River Severn LWS contained in Worcestershire. It will also need to investigate and report upon possible impacts on priority habitats and / or priority species such as coastal & floodplain grazing marsh, which have been recorded adjacent to / and less than 1km of the Preferred Area. An analysis of whether any significant effects on internationally and nationally designated sites may arise must also be incorporated into the assessment.	ENV
Archaeology / Historic Environment	An assessment of heritage assets should be undertaken for the Preferred Area that incorporates an analysis of its potential archaeological interest. This must include both a pre-determination evaluation to establish the presence and significance of heritage assets; and a mitigation strategy that could introduce constraints upon future mineral working and associated activities in order to preserve key heritage assets and their settings; and the appropriate and proportionate recording and / or excavation of all other heritage assets.	ENV
Water Resources	A hydrogeological impact assessment should be completed, which will consider potential risks, their significance and possible mitigation measures, if required, on the following nearby surface water bodies (i.e. within 1km): - the River Severn; Ripple and Mythe Brook; Walmer Pool; Hill View Fishing Lakes; Ripple Lake; a number of unnamed brooks and ditches that lie across the Preferred Area; and a number unnamed lakes and ponds in the local vicinity. The underlying geology has been classified as a Secondary Aquifer of High Vulnerability. This means the area is able to easily transmit pollution through to groundwater. In preparing any hydrological mitigation, attention should be given to reducing the impact of any dewatering through sub-dividing the working area into smaller cells to reduce the active perimeter; and restricting the practice during storm events to ensure receiving waters have appropriate capacity for the flow. For minimising the risk to water quality, bunded tanks and drip trays to prevent spillages should be proposed, along with settlement (silt) ponds or proprietary equipment.	ENV, LC
Flood Risk	A flood risk assessment should be carried out focused on the risk of river flooding and groundwater flooding. Particular attention will also need to be given to the identification of Flood Zone areas 2 and 3 over the Preferred Area. Potential sensitive receptors to flood risk include: - the nearby commercial nursery, Twyning Farm and Puckrup Golf Course. Mitigation to minimise the impact on flood risk could include: - the placing of buildings, storage and stockpiling and other site infrastructure away from areas susceptible to surface water flooding; and the provision of appropriate flow balancing using sustainable drainage systems.	ENV, LC
Restoration opportunities & constraints	Restoration proposals could include coastal & floodplain grazing marsh or eutrophic standing water or even Reed-bed. However, on higher ground more substantial vegetation such as woodland may enhance the existing riverine ecological network. Opportunities to achieve biodiversity enhancements should also be explored through contributing to the Bushley SNA. Furthermore, where any infilling of parcels using inert materials is deemed acceptable, this must provide safe pathways for groundwater to move around or through in order to avoid creating heightened flood risk.	RA

Allocation 08 - Area of Search at Lady Lamb Farm, Fairford

Aggregate type	Sand & Gravel		
Potential Yield	<3mt	Site Area	84ha
District	Cotswold	Parish	Kempsford



 Areas of Search

Lady Lamb Farm



 **Gloucestershire**
COUNTY COUNCIL



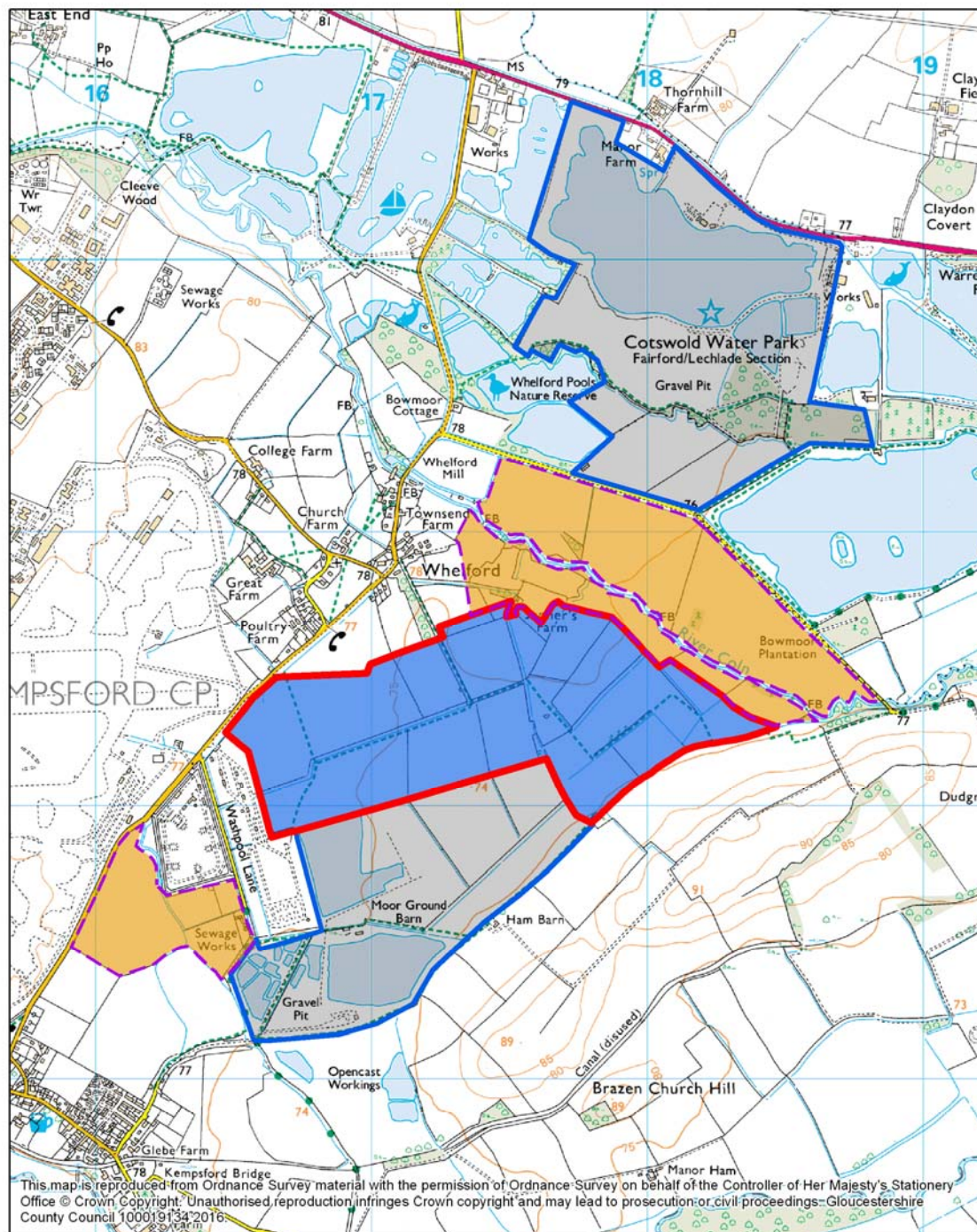
Detailed Development Requirements for the Lady Lamb Farm Area of Search		
<i>Theme</i>	<i>Specific Requirement</i>	<i>Linked to the delivery of plan objectives</i>
Landscape & Visual Impact	A Landscape & Visual Impact Assessment will be necessary, which should analyse the sensitivity of national landscape character NCA 108 (Upper Thames Clay Vales) and the regional / local level classification – Unwooded Vale and River Basin Lowland landscape character type and the Fairford and Lechlade landscape character areas that are described in the Various Vales (Gloucestershire) Landscape Character Assessment. Consideration should also be given to potential visual impacts on nearby sensitive receptors that may include: - a number of individual properties, farms and commercial premises nearby to the Area of Search; the network of paths and recreational routes in the locality; and the A417 and minor road running north from Oak Copse. Where potential impacts are identified and mitigation is required, particular attention should be given to: - the creation of a bund with vegetation along the southern boundary of the Area of Search; enhanced, infill planting and bunding along the eastern boundary and a buffer with hedgerow planting around public footpath BFA 6/1.	ENV, LC
Soil Resources	A soil impact assessment should be undertaken, which identifies potential impacts and possible mitigation, if required, particularly in light of the presence of agricultural land of BMVAL quality grades 3a.	ENV
Highways	A new access will be required onto the A419 and vehicular limits and a routing strategy will need to be carefully considered. Particular attention should also be given to the restrictions that exist through nearby Fairford (to the east) A full and detailed Transport Assessment should be carried out following advice provided from the Local Highways Authority.	MM
Operational Matters / Site Infrastructure	Site infrastructure will need to be provided. Careful consideration will also need to be given to an appropriate capacity and other relevant operational limits. These may be form part of a deliverable mitigation strategy.	ENV, LC, MM
PRoW	An assessment of the PRoW network should be undertaken with particular attention given to paths BFA 6/1. Advice should be sought from the Local Highways Authority regarding any proposals to temporarily divert or permanent re-routing the affected path.	LC
Local Communities	An analysis of potential amenity impacts will be necessary. Careful consideration should be paid to the local communities made up of the individual residential properties, farms and commercial and leisure enterprises located nearby to the Area of Search and those that comprise the western side of Fairford town; and the hamlets and villages of Meysey Hampton and Furzey Hill.	LC
Aerodrome Safeguarding	Aviation safety should be considered as the Preferred Area falls within a zone where Instrumental Landing Systems (ILSs) may need to be operated. It also falls within the statutory Birdstrike zone for RAF Fairford. DIO Safeguarding will be consulted on all minerals development proposals within the Preferred Area.	LC

Natural Environment	An assessment of the natural environment surrounding and within the Preferred Area will be required. This should consider potential impacts, their significance and possible mitigation measures, if required, on the nearby environmental designations. It will also need to investigate and report upon possible impacts on priority habitats and / or priority species. An analysis of whether any significant effects on internationally and nationally designated sites may arise must also be incorporated into the assessment.	ENV
Archaeology / Historic Environment	An assessment of heritage assets should be undertaken for the Preferred Area that incorporates an analysis of its potential archaeological interest. A review of a previous evaluation undertaken in 1993 may prove useful to this exercise. The assessment must include both a pre-determination evaluation to establish the presence and significance of heritage assets; and a mitigation strategy that could introduce constraints upon future mineral working and associated activities in order to preserve key heritage assets and their settings; and the appropriate and proportionate recording and / or excavation of all other heritage assets.	ENV
Water Resources	A hydrogeological impact assessment should be completed, which will consider potential risks, their significance and possible mitigation measures, if required, on the following nearby surface water bodies (i.e. within 1km): - Marston Meysey Brook; River Coln; the network of drains and tributaries to the River Coln that lie across the Preferred Area; and several lakes and ponds concentrated in the local vicinity, to the east. Consideration should also be given to the Preferred Area being located within a Source Protection Zone Level 1 and that the underlying geology has been classified as a Secondary A Aquifer. In preparing any hydrological mitigation, attention should be given to reducing the impact of any dewatering through sub-dividing the working area into smaller cells to reduce the active perimeter; and restricting the practice during storm events to ensure receiving waters have appropriate capacity for the flow. For minimising the risk to water quality, bunded tanks and drip trays to prevent spillages should be proposed, along with settlement (silt) ponds or proprietary equipment.	ENV, LC
Flood Risk	A flood risk assessment should be carried out focused on the risk of groundwater flooding and increased surface water run-off. Potential sensitive receptors that may be subject to flood risk and will therefore require scrutiny include: - Waitenhills, Waitenhills Farm and Waiten Hill. Mitigation to minimise the impact on flood risk could include: - the placing of buildings, storage and stockpiling and other site infrastructure away from areas susceptible to surface water flooding; and the provision of appropriate flow balancing using sustainable drainage systems.	ENV, LC

Restoration opportunities & constraints	<p>Restoration proposals worth exploring may include a combination of wet grassland, reed-bed shallows and traditional agriculture. In doing so the potential to follow the principles laid down with nearby Horcott Quarry site to the east should also be investigated.</p> <p>Opportunities to achieve biodiversity enhancements may also exist, predominately to the south of the Area of Search nearby to the wooded area of Lady Lamb's Copse. Careful consideration must also be given to continued aviation safeguarding associated with RAF Fairford such as avoiding heightened risk of bird strike.</p> <p>Furthermore, any infilling of worked parcels using inert materials must provide safe pathways for groundwater to move around or through in order to avoid creating heightened flood risk.</p> <p>Opportunities to contribute towards beneficial and supported landscape-scale change or enhancement as guided through the Cotswold Water Park Master Plan should also be examined.</p>	RA
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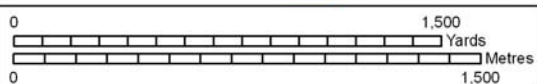
Allocation 09 – Areas of Search at Land between Kempford & Whelford

Aggregate type	Sand & Gravel		
Potential Yield	<3mt	Site Area	84ha
District	Cotswold	Parish	Kempford



■ Areas of Search
 ■ Specific Site
 ■ Existing Quarries

Land between Kempford and Whelford



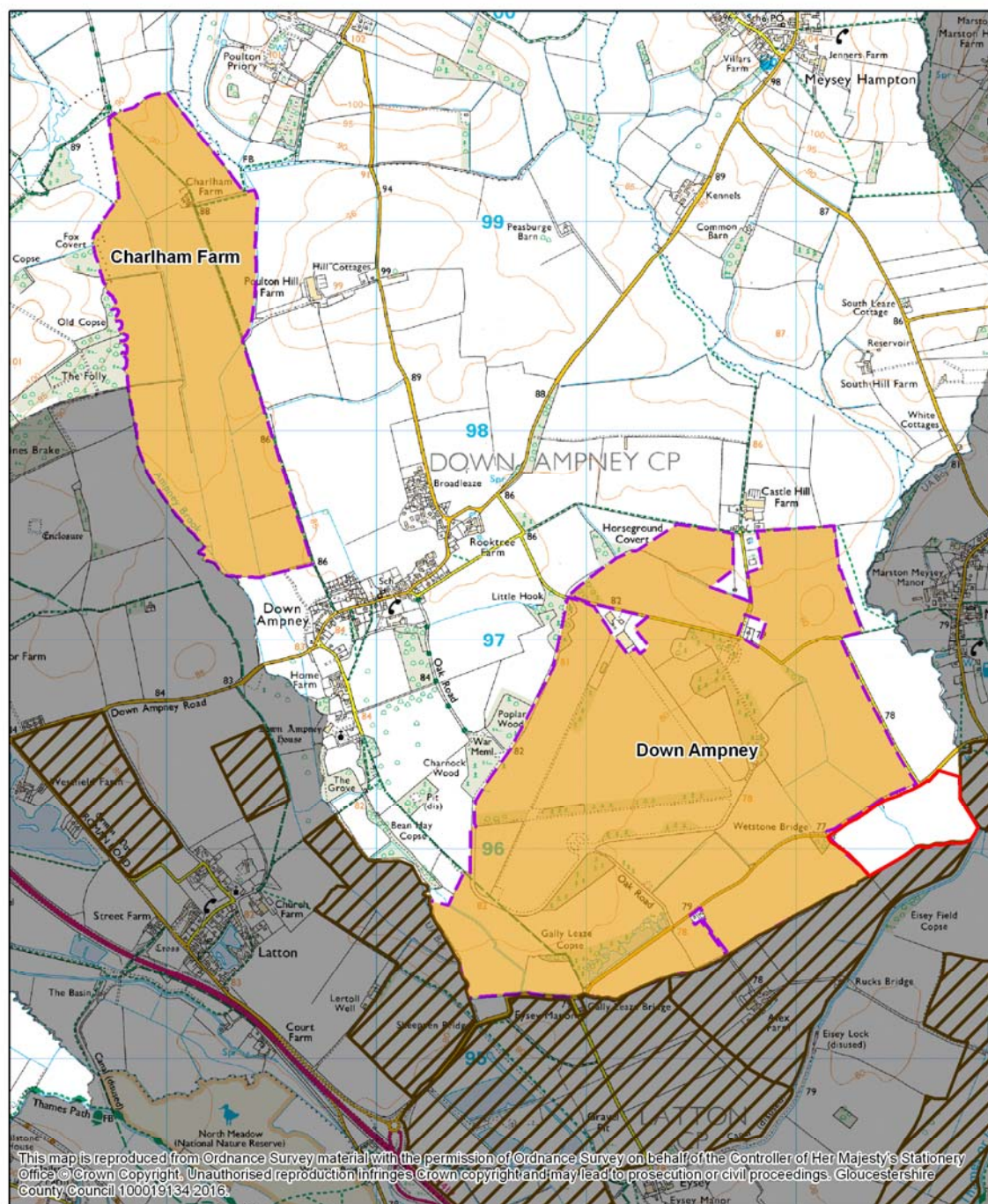
Detailed Development Requirements for Land between Kempford and Whelford Areas of Search		
<i>Theme</i>	<i>Specific Requirement</i>	<i>Linked to the delivery of plan objectives</i>
Landscape & Visual Impact	A Landscape & Visual Impact Assessment will be necessary, which will analyse the sensitivity of national landscape character NCA 108 (Upper Thames Clay Vales) and the regional / local level classification – River Basin Lowland landscape character type and the Fairford and Lechlade landscape character area, that are both described in the Various Vales (Gloucestershire) Landscape Character Assessment. Consideration should also be given to potential visual impacts on nearby sensitive receptors that may include: - the properties that form the settlements of Whelford and Kempford; the network of paths and recreational routes in the locality; and Whelford Road running north from Kempford to Whelford. Where potential impacts are identified and mitigation is required, particular attention should be given to the placement and subsequent management of soil storage and noise attenuation bunds; and the maintenance of buffers around existing public footpaths through the site along with hedgerow planting and screening; and hedgerow and tree planting along Whelford Road with regards to the southern Area of Search.	ENV, LC
Soil Resources	A soil impact assessment should be undertaken, which identifies potential impacts and possible mitigation, if required, particularly in light of the presence of agricultural land of BMVAL quality grades 2 and 3a.	ENV, LC
Highways	The access arrangements at the existing Manor Farm Quarry should be utilised. This may also include the Area of Search to the north of the River Coln, which could be accessed using a conveyor, which crosses the river. Alternative arrangements for the Area of Search north of the River Coln may include Thornhill Farm Quarry. No new separate vehicular accesses for the Areas of Search should be proposed. A Transport Assessment may be necessary if an extension of time is required in order to use existing site infrastructure.	MM
Operational Matters / Site Infrastructure	Site infrastructure contained within the existing Manor Farm Quarry should be utilised. However, for the Area of Search to the north of the River Coln, Thornhill Farm Quarry may prove an acceptable alternative. However, separate provision should not be made within the Areas of Search. The capacity of the existing Manor Farm Quarry and / or Thornhill Farm Quarry should not be affected by the Areas of Search and not breach the permitted maximum overall output levels.	MM, LC
Local Communities	An analysis of potential amenity impacts will be necessary. Careful consideration should be paid to the local communities made up of the individual residential properties, farms and commercial and leisure enterprises located nearby to the Areas of Search and those that comprise the villages of Kempford and Whelford.	LC

Aerodrome Safeguarding	A full assessment of aviation safety should be carried out as the Preferred Areas lie within the safeguarding zones for RAF Fairford and RAF Brize Norton. It also falls within a zone where Instrumental Landing Systems (ILSs) may need to be operated. Any assessment must also consider statutory explosive and birdstrike safeguarding matters. DIO Safeguarding will be consulted on all minerals development proposals within the Areas of Search	LC
Natural Environment	An assessment of the natural environment surrounding and including the Areas of Search will be required. This should consider potential impacts, their significance and possible mitigation measures, if required, on the following nearby (i.e. less than 1km) environmental designations: - Cotswold Water Park SSSI; Whelford SSSI; Cotswold Water Park KWS; and Jenner's Farm Field KWS. It will also need to investigate and report upon possible impacts on priority habitats and / or priority species, which have been recorded on, adjacent and within 1km of the Specific Site. An analysis of whether any significant effects on internationally and nationally designated sites may arise must also be incorporated into the assessment.	ENV
Archaeology / Historic Environment	An assessment of heritage assets should be undertaken for the Areas of Search that incorporates an analysis of potential archaeological interest. This must include both a pre-determination evaluation to establish the presence and significance of heritage assets; and a mitigation strategy that could introduce constraints upon future mineral working and associated activities in order to preserve key heritage assets and their settings; and the appropriate and proportionate recording and / or excavation of all other heritage assets. Of potential relevance, which will need to be properly evaluated, is the identification of a complex pattern of settlement and trackways over the southern most Area of Search; an enclosure within the Area of Search South of the River Coln; and a further enclosure possibly of Roman period within the Area of Search North of the River Coln.	ENV
Water Resources	A hydrogeological impact assessment should be completed, which will consider potential risks, their significance and possible mitigation measures, if required, on the following nearby surface water bodies (i.e. within 1km): - Dudgrove Brook and several of its local tributaries and network of drains; River Coln; Thames & Severn Canal; River Thames; Bowmoor Lake; Coln Park Lake; and a number of unnamed ponds and lakes concentrated to the north of the Areas of Search. All Areas of Search are also located less than 1km of a Source Protection Zone Level 3 and the underlying geology has been classified as a Secondary Aquifer of High Vulnerability. This means the area is able to easily transmit pollution through to groundwater. In preparing any hydrological mitigation, attention should be given to reducing the impact of any dewatering through sub-dividing the working area into smaller cells to reduce the active perimeter; and restricting the practice during storm events to ensure receiving waters have appropriate capacity for the flow. For minimising the risk to water quality, bunded tanks and drip trays to prevent spillages should be proposed, along with settlement (silt) ponds or proprietary equipment.	ENV, LC

Flood Risk	A flood risk assessment should be carried out focused on the risk of river flooding, groundwater flooding and increased surface water run-off. Particular attention will also need to be given to the identification of Flood Zone area 2. Potential sensitive receptors that may be subject to flood risk and will therefore require scrutiny include the properties that comprise the village of Whelford and RAF Fairford. Mitigation to minimise the impact on flood risk could include: - the placing of buildings, storage and stockpiling and other site infrastructure away from areas susceptible to surface water flooding; and the provision of appropriate flow balancing using sustainable drainage systems.	ENV, LC
Restoration opportunities & constraints	Integration of restoration proposals with the existing Manor Farm Quarry complex restoration plans and those of the Specific Site - Allocation No. 6 should be explored. The reinstatement of footpaths and additional permissive paths to provide enhanced links to the surrounding public rights of way network is advisable as well as opportunities to achieve biodiversity enhancements, through contributing to the Coln Corridor SNA, Jenner's Farm Field KWS, and / or Kempsford SNA. Key features worth investigating include: - the creation a series of ditch structures and hedge and tree lines; and facilitating species rich, rough grassland alongside more traditional agriculture. The former of these features may also support an effective combined water management regime also involving the River Coln. Very careful consideration must also be given to continued aviation safeguarding associated with RAF Fairford such as avoiding heightened risk of bird strike. Furthermore, whilst restoration back to original / or near original ground level should be the preferred approach, any infilling of parcels using inert materials must provide safe pathways for groundwater to move around or through in order to avoid creating heightened flood risk. Opportunities to contribute towards beneficial and supported landscape-scale change or enhancement as guided through the Cotswold Water Park Master Plan should also be examined.	RA

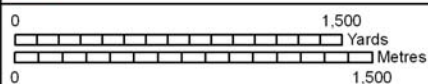
Allocation 10 - Areas of Search at Down Ampney and Charlham Farm

Aggregate type	Sand & Gravel		
Potential Yield	<15mt	Site Area	488ha
District	Cotswold	Parish	Down Ampney



- Areas of Search
- Out of County
- Neighbouring Minerals Development Plan allocations, existing quarries and / or extant permissions
- Existing quarries and extant permissions

**Down Ampney including
Charlham Farm**



Gloucestershire
COUNTY COUNCIL



Development Requirements for Down Ampney & Charlham Fm Areas of Search		
Theme	Specific Requirement	Objectives /Policies
Landscape & Visual Impact	<p>For Charlham Farm Area of Search: - A Landscape & Visual Impact Assessment will be necessary, which will need to analysis the sensitivity of national landscape character NCA 108 (Upper Thames Clay Vales) and that of the regional / local level classification – the River Basin Lowland and Dip Slope Lowland landscape character types and Down Ampney and Driffield Lowland landscape character areas, which are described in the Various Vales (Gloucestershire) Landscape Character Assessment. Consideration should also be given to potential visual impacts on nearby sensitive receptors that may include: - several individual farms and properties to the north of Down Ampney; properties contained within the main village of Down Ampney; the residential estate of Broadleaze and Linden Lea; and nearby recreational routes and paths. Where potential impacts are identified and mitigation is required careful consideration will need to be given to: - the creation of a corridor of planted hedgerows and screen bunds alongside public and permitted footpaths within and immediately adjacent the Area of Search; phased working and restoration to reduce the physical extent of the mineral development at any one time; the retention and strengthening of the hedgerow to the north of Down Ampney; and; hedgerow and tree planting along the eastern boundary of the Area of Search.</p> <p>For the Down Ampney Area of Search: - A Landscape & Visual Impact Assessment will be necessary, which will need to analysis the sensitivity of national landscape character NCA 108 (Upper Thames Clay Vales) and that of the regional / local level classification – the River Basin Lowland landscape character type and Down Ampney landscape character area, which are described in the Various Vales (Gloucestershire) Landscape Character Assessment. Consideration should also be given to potential visual impacts on nearby sensitive receptors that may include: - several individual farms and properties to the north and east of the Area of Search; properties within the village of Marston Meysey and Down Ampney and nearby recreational routes and paths. Where potential impacts are identified and mitigation is required careful consideration will need to be given to: - the strengthening of hedgerows alongside roads and site boundaries through buffer planting, infill planting, tree planting and allowing these to grow to a tall height; retaining wherever possible woodland blocks within the Area of Search; screen planting around key sensitive visual receptors; phased working and restoration and; the creation of buffer zones with hedgerow planting and screen bunds around paths and other recreational routes that lie across the Area of Search.</p>	ENV, LC
Soil Resources	A soil impact assessment should be undertaken, which identifies potential impacts and possible mitigation, if required, particularly in light of the presence of agricultural land of BMVAL quality grades 2 and 3a.	ENV

Highways	Safe and effective new accesses will be required for the Areas of Search. This may be achievable using routes that arrive into Wiltshire. Vehicular limits and routing strategies will need to be carefully considered. Full and detailed Transport Assessments should be carried out following advice provided from the Local Highways Authority. Particularly for the Down Ampney Area of Search, the previously proposed means of access contained within the 2009 Down Ampney Quarry application should be explored ²⁰⁵ .	MM
Operational Matters / Site Infrastructure	Site infrastructure will need to be provided at both of the Areas of Search. Careful consideration will also need to be given to an appropriate capacity and other relevant operational limits. Furthermore, in the case of the Down Ampney Area of Search opportunities to rationalise the use of site infrastructure should be explored taking into account the areas identified for future working within neighbouring Wiltshire. This approach may contribute towards demonstrating an achievable mitigation strategy can be put in place.	ENV, LC, MM
PRoW	An assessment of the PRoW network should be undertaken with particular attention given to paths and recreational routes: - BAP15, BDA 1/1, ½, 2/1, 9/2, 7, 10/1 and 11, and BMH5, depending upon which of the Areas of Search is under consideration. Advice should be sought from the Local Highways Authority regarding any proposals to temporarily divert or permanent re-route potentially affected paths.	LC
Local Communities	An analysis of potential amenity impacts will be necessary. Careful consideration should be paid to the local communities made up of the individual residential properties, farms and commercial and leisure enterprises located nearby to the Areas of Search and those that comprise the villages of Down Ampney (including Broadleaze); Latton; and Marston Meysey. Cumulative impacts associated with the areas identified for future working within neighbouring Wiltshire will need to be explored.	LC
Aerodrome Safeguarding	Aviation safety should be considered as the Areas of Search falls within a zone where Instrumental Landing Systems (ILSs) may need to be operated. It also falls within the statutory Birdstrike zone for RAF Fairford. DIO Safeguarding will be consulted on all minerals development proposals within the Areas of Search.	LC
Natural Environment	For both Areas of Search an assessment of the natural environment will be required. This should consider potential impacts, their significance and possible mitigation measures, if required, on the nearby environmental designations. It will also need to investigate and report upon possible impacts on priority habitats and / or priority species. An analysis of whether any significant effects on internationally and nationally designated sites may arise must also be incorporated into the assessment.	ENV

²⁰⁵ Planning search reference: - 09/0050/CWMAJM | The winning and working of sand and gravel, the construction of a new road access onto the C124 (proposed Eastern Spine Road), a bridge crossing of the Ampney Brook, temporary conveyor gantry crossing of the C124, construction and operation of a concrete batching plant, aggregate bagging plant and associated ancillary buildings, structures and operations, demolition and recycling of a concrete runway, with restoration to agriculture, woodland, amenity and nature conservation at land to South & South East of Down Ampney up to the Gloucestershire / Wiltshire border. This application has been formally disposed.

Archaeology /Historic Environment	<p>An assessment of heritage assets should be undertaken in the case of both Areas of Search, which incorporates an analysis of potential archaeological interest. It must include both a pre-determination evaluation to establish the presence and significance of heritage assets; and a mitigation strategy that could introduce constraints upon future mineral working and associated activities in order to preserve key heritage assets and their settings; and the appropriate and proportionate recording and / or excavation of all other heritage assets. Of potential relevance, which will need to be properly evaluated, is the identification of multi-period heritage assets across the Charlham Farm Area of Search; and prehistoric and Roman activity in the Area of Search for Down Ampney.</p>	<p>ENV</p>
Water Resources	<p>For Charlham Farm Area of Search: - A hydrogeological impact assessment should be completed, which will consider potential risks, their significance and possible mitigation measures, if required, on the following nearby surface water bodies (i.e. within 1km): - Ampney & Poulton Brook; numerous drains into the Ampney Brook that lie across the Area of Search and nearby; and several ponds mostly to the north and east. Consideration should also be given to the Area of Search being largely located within a Source Protection Zone Level 2 and that a very small area also falls in a Source Protection Zone Level 1. In addition, the underlying geology has been classified as a Secondary A Aquifer. In preparing any hydrological mitigation, attention should be given to reducing the impact of any dewatering through sub-dividing the working area into smaller cells to reduce the active perimeter; and restricting the practice during storm events to ensure receiving waters have appropriate capacity for the flow. For minimising the risk to water quality, bunded tanks and drip trays to prevent spillages should be proposed, along with settlement (silt) ponds or proprietary equipment.</p> <p>For Down Ampney Area of Search: - A hydrogeological impact assessment should be completed, which will consider potential risks, their significance and possible mitigation measures, if required, on the following nearby surface water bodies (i.e. within 1km): - Marston Meysey Brook; Ampney and Poulton Brooks; River Thames; River Churn; Thames & Severn Canal; tributaries and drains to Ampney Brook that lie across the Area of Search; and several ponds and lakes to the south. Consideration should also be given to the Area of Search being located within Source Protection Zones Level 1, 2 and 3. In addition, the underlying geology has been classified as a Secondary A Aquifer. In preparing any hydrological mitigation, attention should be given to reducing the impact of any dewatering through sub-dividing the working area into smaller cells to reduce the active perimeter; and restricting the practice during storm events to ensure receiving waters have appropriate capacity for the flow. For minimising the risk to water quality, bunded tanks and drip trays to prevent spillages should be proposed, along with settlement (silt) ponds or proprietary equipment.</p>	<p>ENV, LC</p>

Flood Risk	<p>For Charlham Farm Area of Search: - A flood risk assessment should be carried out focused on the risk of river flooding and groundwater flooding. Particular attention will also need to be given to the identification of Flood Zone areas 2 and 3 over the Area of Search. Potential sensitive receptors to flood risk that will need to be investigated include the properties of the village of Down Ampney. Mitigation to minimise the impact on flood risk could involve: - the placing of buildings, storage and stockpiling and other site infrastructure away from areas susceptible to surface water flooding; and the provision of appropriate flow balancing using sustainable drainage systems.</p> <p>For Down Ampney Area of Search: - A flood risk assessment should be carried out focused on the risk of river flooding and groundwater flooding. Particular attention will also need to be given to the identification of Flood Zone areas 3 over part of the Area of Search. Potential sensitive receptors to flood risk that will need to be investigated include: the settlements of Down Ampney; Latton; Marston Meysey; Cricklade; Castle Eaton; Kempsford; and RAF Fairford. Mitigation to minimise the impact on flood risk could involve: - the placing of buildings, storage and stockpiling and other site infrastructure away from areas susceptible to surface water flooding; and the provision of appropriate flow balancing using sustainable drainage systems.</p>	<p>ENV, LC</p>
Restoration opportunities & constraints	<p>Restoration proposals including a combination of marl lakes, agriculture and water meadows should be explored. Opportunities to achieve biodiversity enhancements, through contributing to the Down Ampney Pits SNA, Eysey SNA and / or the Ampney Corridor SNA may also benefit from investigation. Very careful consideration must also be given to continued aviation safeguarding associated with RAF Fairford such as avoiding heightened risk of bird strike. Furthermore, whilst restoration back to original / or near original ground level should be the preferred approach, any infilling of parcels using inert materials must provide safe pathways for groundwater to move around or through in order to avoid creating heightened flood risk. Opportunities to contribute towards beneficial and supported landscape-scale change or enhancement as guided through the Cotswold Water Park Master Plan should also be examined.</p>	<p>RA</p>