Gloucestershire
COUNTY COUNCIL

Minerals Local Plan for Gloucestershire

2018 - 2032

Supporting Evidence Paper

May 2018

Section 1 | Introduction

1. This evidence paper has been produced to support the Publication (Pre-submission) Minerals Local Plan for Gloucestershire (2018 – 2032) (hereafter referred to as "the publication plan"). It provides information about the plan's progression from the previous engagement and public consultation stage (hereafter referred to as "the draft plan").

2. The paper is focused on three key areas of the evidence base, presented under the following sections: -

   - **Section 2 |** an explanation of how the publication plan has evolved since the draft plan was subject to public consultation in autumn 2016;

   - **Section 3 |** a review of aggregate mineral requirements based on the most up to-date data available (up to 31/12/2016) and how these requirements have influenced the preparation of the publication plan; and

   - **Section 4 |** an explanation of the approach taken within the publication plan to making provision for a local contribution towards aggregate mineral requirements through the use of local plan allocations. This includes an audit of how candidate allocations have emerged from their initial introduction to their inclusion (or otherwise) within the publication plan.

Section 2 | the evolution of the plan – 2016 to 2018

Consultation for the draft plan (September 2016)

3. Between September and November 2016 a comprehensive full draft version of the Minerals Local Plan for Gloucestershire (2018 – 2032) underwent public consultation. The draft plan brought together the findings of all previous public consultations[1]. It also took account of the outcomes of additional technical work commissioned by the Council and further evidence gathering carried out by officers. Changes in circumstance such as the submission and consideration of planning applications for minerals development, where also reflected. In addition, it incorporated the most up-to-date analysis of evolving mineral supply statistics.

4. The draft plan consultation generated responses from 1,067 individuals and organisations with an interest in minerals planning in Gloucestershire. A total of 2,544 representations were made to the different elements of the draft plan, which equates to an average of around 2 specific comments per respondent.

5. From November 2016 careful consideration was given to the representations to the draft plan in the preparation for the next plan making stage – the publication plan[2].

Preparation of the publication plan (May 2018)

6. Towards the end of 2016 and throughout 2017, a rigorous analysis of consultation responses to the draft plan was carried out alongside a thorough review of national policy and evolving government guidance. This was hugely influential in preparing for the publication plan. Government statements and decisions and key legislative changes over the period were also acknowledged. Evolving best practice and the interpretation of relevant planning decisions issued by the Secretary of State and appointed planning inspectors, were also taken into account.

[1] In 2006 and 2008 public consultations took place to support the preparation of a Minerals Core Strategy (MCS). These events considered early issues and options and potential preferred options for developing a vision, objectives and strategic policies for minerals matters across the county. In summer 2014 a third round of early consultation took place, which re-introduce and reviewed much of the content of the earlier MCS. It also included eighteen candidate site options. More details relating to the previous plan consultations can be obtained at: - https://www.gloucestershire.gov.uk/planning-and-environment/planning-policy/minerals-local-plan-for-gloucestershire/evidence-base-for-the-minerals-local-plan-for-gloucestershire/

[2] A Draft Minerals Local Plan for Gloucestershire (2018-2032) Consultation Review Report has been prepared to show the analysis of respondents, representations and the resulting recommended changes proposed to the draft plan,. It can be viewed at: - https://www.gloucestershire.gov.uk/planning-and-environment/planning-policy/minerals-local-plan-for-gloucestershire/evidence-base-for-the-minerals-local-plan-for-gloucestershire/

7. Continuing compliance with 'Duty to Co-operate' (DtC) requirements, through further communications with relevant organisations was secured. This included meetings and written correspondence with Gloucestershire's district councils; neighbouring and nearby mineral planning authorities; and other influential / potentially impacted organisations on a number of local and strategic matters[3].

8. A Sustainability Appraisal (SA) has been prepared at key stages of the emerging plan including for the draft plan of autumn 2016. The SA is an important requirement to identify, describe and evaluate the likely significant effects of implementing a plan, and the reasonable alternatives. SA outputs for the draft plan have been considered and have contributed to the preparation of the publication plan.

9. In addition a Habitat Regulations (Screening) Assessment of the draft plan's policies has been undertaken. The purpose of this assessment is to identify any aspect of emerging policy framework that would cause a likely significant effect on any designated European Site or Ramsar site either in isolation or in combination with other plans and / or known projects, and to advise on appropriate policy mechanisms that could be used to deliver mitigation where such effects were identified. The conclusions drawn in respect of the draft plan have been reviewed and have formed part of the decision making process related to the publication plan.

10. To assist in auditing the emerging Minerals Local Plan for Gloucestershire (2018 - 2032) table 1 presents the key changes made to the draft plan that been taken forward into the publication plan: -

[3] A Duty to Co-operate (DtC) Statement has been published to support the publication plan. This statement provides a comprehensive review of all relevant DtC activities concerning the emerging minerals local plan starting from its recommencement in 2013. The statement can be obtained at https://www.gloucestershire.gov.uk/planning-and-environment/planning-policy/minerals-local-plan-for-gloucestershire/evidence-base-for-the-minerals-local-plan-for-gloucestershire/

Table 1: Key changes made to the draft plan (2016) and now contained within the publication plan (2018)

Element presented in the draft plan	Summary of key changes taken forward into the publication plan
Drivers for change	There is an increase in the number of drivers for change from 7 (A-G) to 9 (A-H). *'Tackling climate change'* is now a standalone driver in its own right (driver a) rather than being a matter accommodated across other thematic drivers. The same approach has been taken with *'safeguarding and promoting health and well-being of local communities'*, which is set out as another additional driver (driver c). The projected amount of remaining local reserves has also been updated in driver H – *'maintaining steady and adequate supplies of aggregates'*. This is to accord with the latest published figures contained in the 6th Gloucestershire LAA.
Vision for Gloucestershire	The *'possibility of achieving enhancements…'* has been included as an additional aspiration alongside minimising adverse impacts. The type and nature of potential opportunities resulting from facilitating beneficial after-uses has also been notably expanded to include: - increased resilience to and / or better adaption to climate change; 'net gains' in biodiversity rather than simply enhancements; the conservation of historic assets; a specific reference to flood prevention and / or alleviation; and reference to potential enrichment resulting from green infrastructure.
Plan objectives	Objective LC has been slightly revised to clarify that a 'local community' can be made up of both residents and businesses. In addition, the tables setting out each of the plan's objectives and their attributes have been revised to reflect the changes made to the *'influencing drivers for change'*.
Strategy	The approach to mineral resource safeguarding has been revised to reflect changes in policy detailed below under the headings for policies MS01 and MS02. The Severn Vale resource area has also been removed as an identified location for accommodating allocated areas for future aggregate working. In addition, the approach to y energy minerals has been revised, resulting in the removal of a dedicated policy to cover exploration and production of oil & gas and the introduction of an environmental acceptability test for new coal working. For mineral restoration the opportunity to achieve resilience to and / or adaptation to climate change has also been added as a potential benefit that should be pursed.
Policy SR01 | Maximising the use of secondary and recycled aggregates	No key changes have been taken forward for policy SR01. However, the supporting text has been updated and slightly expanded to exemplify relevant references to other land-use policies that support waste minimisation and material re-use in new development across Gloucestershire.

Policy MS01 | Non-minerals development within MSAs	Policy MS01 has been revised to introduce two new clauses: - an economic viability test; and an exemption list (previously contained within the draft MLP appendix 2: MSA implementation schedule). The supporting text has also been redrafted to accommodate the new clauses and to add further implementation guidance through articulating the extent to which safeguarding measures should be employed beyond known resource boundaries. Additional supporting text is also provided for preparing an appropriately detailed Mineral Resource Assessment (MRA).
Policy MS02 | Non-minerals development within MCAs	Policy MS02 and the supporting text contained within the draft MLP have been removed.
Policy MS03 | Safeguarding mineral infrastructure	Policy MS03 has been re-numbered and is now MS02. It has been redrafted for improved clarity regarding setting out requirements. The policy contains three clauses. The supporting text has also been revised. The safeguarding zone equal to 150 metres from an infrastructure site has been replaced by the circumstance of *'adjoining or potential co-location'* acting as the trigger for assessing infrastructure safeguarding.
Policy MW01 | Aggregate provision	Policy MW01 has been revised to introduce the preferred methodology for calculating 7 and 10 year landbanks. The number of clauses has also increased from 2 to 3, to better explain the policy requirements. The supporting text has been updated to reflect the latest published provision figures contained in the 6th Gloucestershire LAA.
Policy MW02 | Natural building stone	Policy MW02 has been expanded to include all operations that involve the working of natural building stone not just *'small-scale'* workings. The first clause for assessing alternative supplies has also been revised. It now requires that regard be given to the demand for different types of natural building stone. In addition, the final clause has been simplified to ensure that in all circumstances the requirements of policy MR01 (mineral site restoration) will be met. The supporting text has also been significantly redrafted to provide greater clarity and detail as to what is expected in order to meet the policy. It introduces the need for a Building Stone Assessment (BSA) and a narrative concerning the means of evidencing and implementing potential local economic benefits.
Policy MW03 | Clay for civil engineering purposes	Policy MW03 has been re-worked and now requires that regard be given to the demand for clays used in civil engineering purposes rather than simply the need to demonstrate the contribution being made to steady and adequate supplies. An environmental acceptability test has also been added along with evidence of local economic benefits. The supporting text has also been significantly redrafted to provide greater clarity and detail as to what is expected in order to meet the policy.

Policy MW04 | Brick clay	Policy MW04 has been redrafted and now requires evidence from applicants as to how supplies may support specific brickworks and how benefits to the local economy will be secured. The supporting text has also been significantly redrafted to provide greater clarity and detail as to what is expected in order to meet the policy.
Policy MW05 | Coal	Policy MW05 has been revised to clarify what the requirements are for new coal working and to specifically introduce the local communities of the Forest of Dean as a potential beneficiary in attempts to outweigh adverse impacts that might arise. The supporting text has also been expanded to provide an update on the current situation regarding coal as part of the evolving national energy strategy and to offer greater clarity and detail concerning what is expected in order to comply with the policy.
Policy MW06 | Oil & Gas	Policy MW06 and the supporting text contained within the draft MLP have been removed. This is due to candidate PEDL licenses in the county not being taken up. Therefore there is no possibility that an operator can submit a planning application for the exploration and / or exploitation of oil & gas at this time and mostly likely over the timeframe of the plan.
Policy MW07 | Ancillary development	Policy MW07 has been re-numbered as MW06. The policy has also been expanded to include a specific environmental acceptability test when considering proposals that include the handling of imported minerals for processing (clause ii). The policy requirement relating to mineral restoration has been simplified (clause iv) and the need to demonstrate a contribution towards cultural heritage has been incorporated into the final clause (clause v). The supporting text has been redrafted to provide greater clarity and detail as to what is expected in order to comply with the policy.
Policy MA01 | Aggregate working within allocations	Policy MA01 has been revised to reflect the reduction in the number of allocations from 10 to 7 and the renumbering and renaming of some allocations. The supporting text has also been revised to note the change in the number and type of allocations. Table 2 and Appendix 1 provide specific details on the changes made to each of the plan's allocations.
Policy MA02 | Aggregate working outside of allocations	No key changes have been taken forward to policy MA02 or the supporting text.
Policy DM01 | Amenity	Policy DM01 has been expanded to include an additional requirement regarding the use of strict controls upon potential adverse amenity impacts. The supporting text has been redrafted to provide greater clarity and detail as to what is expected in order to comply with the policy.
Policy DM02 | Cumulative Impact	Policy DM02 has been expanded to include an additional clause that will facilitate potential benefits being considered as a possible means of outweighing unacceptable cumulative impacts. The supporting text has been also been expanded to account for the additional clause.

Policy DM03 | Transport	Policy DM03 has been revised so that proposals incorporating alternatives to road transport must now demonstrate they are a sustainable option. In addition, the threshold for public safety on the highway network has been heightened so that no adverse (rather than unacceptable adverse) impacts must be achieved. Furthermore, open access land has been added to the consideration of public rights of way matters. Changes have been made to policy's supporting text to reflect the revisions to the policy.
Policy DM04 | Flood Risk	Policy DM04 has been significantly redrafted to include the detailed requirements of national policy on flood risk (i.e. the application of the sequential test). An additional requirement to ensure any future risk of flooding including from climate change impacts will be taken into account has also been included. For the supporting text, this has been redrafted to provide greater clarity and detail as to what is expected in order to comply with the policy.
Policy DM05 | Water Environment	Policy DM05 has been significantly expanded to incorporate measures to support the delivery of key objectives for River Basin Management Plans (RBMPs); to ensure the physical integrity of water courses will be preserved; and to promote the efficient use of water. In addition, the supporting text has been redrafted to provide greater clarity and detail as to what is expected in order to comply with the policy.
Policy DM06 | Biodiversity and Geodiversity	Policy DM06 has been re-ordered to place non-designated biodiversity and geodiversity matters at the forefront of the policy. The potential for compensatory measures to be taken into account has also been added where an overall net gain can be achieved. For designated sites greater detail has also been provided concerning the factors / measures used in judging the acceptability of the Appropriate Assessment process. The supporting text has been expanded to acknowledge the policy additions and to provide greater clarity and detail as to what is expected in order to comply with the policy.
Policy DM07 | Soils	Policy DM07 has been expanded to show support for the protection of soil resources more generally and not just those with high BMVAL grades. Securing benefits through soil quality enhancements has also been added as a dedicated clause. In terms of the supporting text this has been significantly expanded to provide greater clarity and detail as to what is expected in order to comply with the revised policy.
Policy DM08 | Historic Environment	Policy DM08 has been significantly redrafted to better clarify the requirements of national policy. Other changes include a specific reference to the use of the Gloucestershire Historic Environment Record. The supporting text has also been revised to provide greater clarity and detail as to what is expected in order to comply with the revised policy.

Policy DM09 | Landscape	Policy DM09 has been revised so that proposals will be required to explain their response to the potential impact on the character features and qualities of Gloucestershire's landscape areas. Requirements have also been expanded to support enhancement measures and a new specific clause has been added concerning undesignated valued landscapes or designated landscapes other than AONBs. For proposals that affect AONB designations, the requirements for non-major and major minerals development has been more clearly defined. The supporting text has also been redrafted to provide greater clarity and detail as to what is expected in order to comply with the policy, particularly with 'major' mineral developments in AONBs.
Policy DM10 | Gloucester-Cheltenham Green Belt	No key changes to policy DM10 has been taken forward. However, the supporting text has been updated to acknowledge the recently adopted (Dec 2017) Gloucester-Cheltenham-Tewkesbury Joint Core Strategy and its status in setting the current boundary of the Green Belt.
Policy DM11 | Aerodrome safeguarding and aviation safety	No key changes to policy DM11 or the policy's supporting text have been taken forward.
Policy MR01 | Restoration, aftercare and facilitating beneficial after-uses	Policy MR01 has been redrafted to ensure that both the practice of undertaking restoration and aftercare as well as the end land use will not cause unacceptable adverse impacts. The final clause concerning beneficial after-uses has been broadened out so as to require a demonstrable contribution towards the delivery of sustainable development not just community and environmental improvements. The supporting text has also been significantly revised to provide much greater detail and clarity as to what is expected in order to comply with the policy.

11. Changes covering site-related matters linked to policy MA01 are presented in table 2. These represent the latest position on plan allocations for future aggregate working. Appendix 1 of this report provides a more comprehensive audit of how each of the plan's allocations have evolved from their initial consideration as candidate allocations in 2014.

Table 2: Key changes made to candidate allocations presented in the draft plan (2016) and now contained within the publication plan (2018)

Candidate allocations as presented in the draft plan	Summary of key changes taken forward into the publication plan
Allocation 01 | Preferred Area at Stowe Hill / Clearwell	No key changes to the candidate allocation area or its delineated boundaries. However, the Detailed Development Requirements have been subject to notable revisions and additions. In summary these include a more rigorous analysis of: - possible impacts on public health; economic impacts; vehicular routing including impacts on the Lydney Air Quality Mgmt. Area (AQMA) and other highways-related restrictions; water resources and the inter-relationship to catchment-scale matters of interest; flood risk – particularly accounting for the enhanced risk associated with climate change impacts; soil resources; historic assets in the locality and their setting including the presence of archaeology; the protection of and potential for securing enhancement to the natural environment – with a very strong emphasis on the management of and monitoring the sensitivity of the nearby Slade Brook SSSI; and the opportunities and possible constraints that may arise during the implementation of site restoration and aftercare. The allocation name has also been changed to *Allocation 01: Land east of Stowe Hill Quarry*. This is to clarify the location being allocated and the likely operational circumstances surrounding future working (e.g. as an extension to an existing mineral operation)
Allocation 02 | Preferred Area at Drybrook	No key changes to the candidate allocation area or its delineated boundaries. However, the Detailed Development Requirements have been subject to notable revisions and additions. In summary these include a more rigorous analysis of: - possible impacts on public health; economic impacts; water resources and the inter-relationship to catchment-scale matters of interest; flood risk – particularly accounting for the enhanced risk associated with climate change impacts; soil resources; historic assets in the locality and their setting including the presence of archaeology; the protection of and potential for securing enhancement to the natural environment; and the opportunities and possible constraints that may arise during the implementation of site restoration and aftercare. The candidate allocation name has been changed to *Allocation 02: Land west of Drybrook Quarry*. This is to clarify the location being allocated and likely operational circumstances surrounding future working (e.g. as an extension to an existing working).

Allocation 03 | Preferred Area at Stowfield	No key changes to the candidate allocation area or its delineated boundaries. However, the Detailed Development Requirements for the allocation have been subject to notable revisions and additions. In summary these include a more rigorous analysis of: - possible impacts on public health; economic impacts; water resources and the inter-relationship to catchment-scale matters of interest; flood risk – particularly accounting for the enhanced risk associated with climate change impacts; soil resources – with a focus on the impact to already safeguarded resources; the protection of and potential for securing enhancement to the natural environment; and the opportunities and possible constraints that may arise during the implementation of site restoration and aftercare. The allocation name has been changed to *Allocation 03: Depth extension to Stowfield Quarry*. This is to clarify the location being allocated and likely operational circumstances surrounding future working (e.g. as an extension to an existing working).
Allocation 04 | Preferred Area at Daglingworth	No key changes to the candidate allocation area or its delineated boundaries. However, the Detailed Development Requirements for the allocation have been subject to notable revisions and additions. In summary these include a more rigorous analysis of: - possible impacts on public health; economic impacts; water resources and the inter-relationship to catchment-scale matters of interest; flood risk – particularly accounting for the enhanced risk associated with climate change impacts; soil resources; historic assets in the locality and their setting including the presence of archaeology; the protection of and potential for securing enhancement to the natural environment; and the opportunities and possible constraints that may arise during the implementation of site restoration and aftercare. The allocation name has been changed to *Allocation 04: Land north west of Daglingworth Quarry*. This is to clarify the location being allocated and likely operational circumstances surrounding future working (e.g. as an extension to an existing working).
Allocation 05 | Preferred Areas at Huntsman's	No key changes to the candidate allocation area or its delineated boundaries. However, the Detailed Development Requirements for the allocation have been subject to notable revisions and additions. In summary these include a more rigorous analysis of: - possible impacts on public health; economic impacts; water resources and the inter-relationship to catchment-scale matters of interest; flood risk – particularly accounting for the enhanced risk associated with climate change impacts; soil resources; historic assets in the locality and their setting including the presence of archaeology; the protection of and potential for securing enhancement to the natural environment; and the opportunities and possible constraints that may arise during the implementation of site restoration and aftercare. The allocation name has been changed to *Allocation 05: Land south and west of Naunton Quarry*. This is to clarify the location being allocated following the existing quarry name change and likely operational circumstances surrounding future working (e.g. as an extension to an existing working).

Allocation 06 | Specific Site at Manor Farm, Kempsford	The candidate allocation has been removed. Planning permission was granted for aggregate working across the candidate allocation area in May 2017[4]
Allocation 07 | Preferred Area at Redpool's Farm, Twyning	The candidate allocation has been removed.
Allocation 08 | Area of Search at Lady Lamb Farm, Fairford	No key changes to the candidate allocation area or its delineated boundaries. However, the Detailed Development Requirements for the allocation have been subject to notable revisions and additions. In summary these include a more rigorous analysis of: - possible impacts on public health; economic impacts; highway routing – with a focus on avoiding impacts to Fairford and Lechlade; water resources and the inter-relationship to catchment-scale matters of interest; flood risk – particularly accounting for the enhanced risk associated with climate change impacts; soil resources; historic assets in the locality and their setting including the presence of archaeology; the protection of and potential for securing enhancement to the natural environment; and the opportunities and possible constraints that may arise during the implementation of site restoration and aftercare. The allocation name has been changed to *Allocation 07: Land at Lady Lamb Farm, west of Fairford*. This is to clarify the location being allocated and the re-ordering of plan's allocations.
Allocation 09 | Areas of Search at Land between Kempsford & Whelford	The candidate allocation has been removed.

[4] Planning 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 was granted permission on 15th May 2017. Information on planning applications considered by Gloucestershire County Council can be obtained at: - https://www.gloucestershire.gov.uk/planning-and-environment/planning-applications/search-and-track-planning-applications/

Allocation 10 | Areas of Search at Down Ampney and Charlham Farm	The candidate allocation area has been reduced principally as a consequence of Land at Charlham Farm being removed. Although the delineated boundary of the remaining allocation has also been re-drawn. The southern and south-western boundaries have retreated northwards away from the administrative boundary with Wiltshire. The north-eastern boundary has also retreated away from Marston Meysey. Furthermore, the status of the candidate allocation has been revised from an 'Area of Search' to a 'Preferred Area'. In respect of the he Detailed Development Requirements, these have been subject to notable revisions and additions. In summary these include a more rigorous analysis of: - possible impacts on public health; economic impacts; water resources and the inter-relationship to catchment-scale matters of interest; flood risk – particularly accounting for the enhanced risk associated with climate change impacts; soil resources; historic assets in the locality and their setting including the presence of archaeology; the protection of and potential for securing enhancement to the natural environment; and the opportunities and possible constraints that may arise during the implementation of site restoration and aftercare. The allocation name has been changed to *Allocation 06: Land south east of Down Ampney*. This is to clarify the location being allocated following notable changes in the allocation's area and boundaries; and the change in its status as a preferred area.

Section 3 | aggregate requirements update – from 31/12/2016

National policy and guidance

12. National policy states that mineral planning authorities should plan for the steady and adequate supply of aggregates[5]. This is primarily determined at the local authority level through the preparation of a Local Aggregate Assessment (LAA)[6]. Government guidance sets out the basic requirements for LAAs including the need to establish a forecast of demand using the level of aggregate sales over an average of 10 years. It also advises that an alternative average of 3 years may be usable, where evidence suggests that an increase in supply to meet demand is conceivable[7]. Furthermore, LAAs should present a review of other relevant information, which could have an impact upon sales patterns in the future[8]. This may include planned construction including house building.

13. In addition, national policy makes specific reference to the need to take account of published National and Sub-National Guidelines on future aggregate provision, when planning for aggregates[9]. The current guidelines cover the period from 2005 to 2020[10].

14. The approach to making provision for aggregates is also set out in national policy. Mineral planning authorities are advised to support the maintenance of landbanks of permitted reserves equal to at least 10 years for crushed rock and at least 7 years for sand and gravel[11].

15. However, national policy and government guidance also allows for a degree of local discretion to be employed. It confirms that separate landbanks may be calculated and maintained for different aggregate materials and / or different distinct and separate markets[12].

16. The method for calculating the length of an aggregate landbank is set out in government guidance. It involves dividing the sum in tonnes of all relevant permitted aggregate reserves for which valid planning permissions are extant, by the annual rate of future demand in tonnes per annum – based on the latest

[5] National Planning Policy Framework (NPPF) section 13, paragraph 145;
[6] National Planning Policy Framework (NPPF) section 13, paragraph 145, bullet point 1;
[7] Planning Practice Guidance (PPG) - Minerals (section), paragraph: 062, reference ID: 27-062-20140306;
[8] Planning Practice Guidance (PPG) - Minerals (section), paragraph: 064, reference ID: 27-064-20140306;
[9] National Planning Policy Framework (NPPF) section 13, paragraph 145, bullet point 4;
[10] 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
[11] National Planning Policy Framework (NPPF) section 13, paragraph 145, bullet point 6;
[12] National Planning Policy Framework (NPPF) section 13, paragraph 145, bullet point 8 and Planning Practice Guidance (PPG) - Minerals (section),paragraph: 085, reference ID: 27-085-20140306;

evidence contained in the LAA[13]. The length of a landbank should also be re-calculated on an annual basis.

17. In preparing mineral local plans and deciding upon planning applications, other factors beyond a standard landbank calculation need to be considered. These include: - the productive capacity at and across permitted sites; the ability for mineral operations to supply desirable aggregate products / materials; the relationship between mineral operations and their markets; and facilitating a competitive environment by avoiding the build-up of aggregate landbanks in just a few sites[14].

18. Furthermore, national policy also states that, as far as is practical, providing for the maintenance of landbanks of non energy minerals – including aggregates, should be from outside of National Parks, the Broads, Areas of Outstanding Natural Beauty, World Heritage sites, Scheduled Monuments and Conservation Areas[15].

Determining Gloucestershire's aggregate requirements

Local Aggregate Assessment (LAA) – Update

19. In November 2017 the sixth Local Aggregate Assessment for Gloucestershire was published[16]. This LAA provides the most up-to-date information available on aggregate supplies from the county and covers the period up to the end of 2016.

20. The sixth LAA indicates that for the 10-year period between 2007 and 2016 (inclusive) average annual sales from Gloucestershire stood at 1.452 million tonnes for crushed rock and 0.742 million tonnes for sand & gravel. For the 3-year period between 2014 and 2016 (inclusive) the average annual sales rose to 1.540 million tonnes for crushed rock and fell to 0.573 million tonnes for sand & gravel.

21. In terms of remaining permitted reserves as at the end of 31/12/2016, the figure stood at 24.32 million tonnes for crushed rock and 4.41 million tonnes for sand & gravel.

22. Consequently, the lengths of the countywide aggregate landbanks are equal to 16.75 years for crushed rock and 5.94 years for sand & gravel when based on the 10-year sales average.

[13] Planning Practice Guidance (PPG) - Minerals (section), paragraph: 083, reference ID: 27-083-20140306;
[14] National Planning Policy Framework (NPPF) section 13, paragraph 145, bullet points 6 and 7;
[15] National Planning Policy Framework (NPPF) section 13, paragraph 144, bullet point 2.
[16] The sixth Local Aggregate Assessment for Gloucestershire can be found at: - http://www.gloucestershire.gov.uk/planning-and-environment/planning-policy/local-aggregates-assessment-laa/

Provision requirement for crushed rock

23. The publication plan must consider how it can facilitate making provision for the future working of crushed rock aggregate to satisfy future demand as established through the LAA. Presently, this is equal to 1.452 million tonnes per annum (mtpa).

24. Facilitating provision should occur for the full duration of the plan and also ensure that a sufficiently long enough landbank (i.e. 10 years) will be in place at the end of the plan period.

25. A time horizon of 15 years has been established for the emerging Minerals Local Plan for Gloucestershire. This is the preference set by national policy[17]. Employing a plan base year of 2018 generates a plan end date of 2032. The base year marks the transition of the emerging plan from its draft stage to the Council's agreed mineral strategy – the publication plan. The aim is to achieve adoption as soon as is practicably possible after the base year. However, it is recognised that the base year is a further 12-months on from the most up-to-date position on aggregate reserves and the assessment of demand through past sales (i.e. up to the start of 2017). It is important therefore that this period is fully recognised in the calculation of future provision, as aggregate working will undoubtedly take place during this time and will impact upon the amount of remaining reserves.

26. Any published up date of the aggregate reserves and sales, provided through further LAA surveys will need to be carefully taken into account and if necessary a revised position statement will be provided through the anticipated independent examination during late 2018 / early 2019.

27. Determining the provision requirement for crushed rock current represents meeting theoretical demand equal to 1.452 mtpa for period of 26 years. This generates a total provision requirement of 37.752 million tonnes of crushed rock. Table 3 details how the total provision requirement has been calculated: -

[17] National Planning Policy Framework (NPPF), paragraph 157, bullet point 1

Table 3: Calculating the overall provision requirement for crushed rock based on the sixth LAA *(data up to 31/12/2016)*

Overall Crushed Rock Provision Requirement Breakdown: -	**Number of Years**	**Provision Requirement (based on 1.452 mtpa)**
Provision to be made up to the plan's base year *(01/01/2017 to 31/12/2017)*	1	(1 x 1.452) 1.452mt
15-year time horizon of the Minerals Local Plan for Gloucestershire *(01/01/2018 to 31/12/2032)*	15	(15 x 1.452) 21.78mt
Maintaining a 10yr landbank at the end of the plan *(01/01/2033 to 31/12/2042)*	10	(10 x 1.452) 14.52mt
Total *(01/01/2017 to 31/12/2042)*	**26**	**37.752 mt**

Provision requirement for crushed rock – taking account of existing reserves

28. The level of permitted reserves of crushed rock must also be taken into account when assessing how much provision should be considered through the plan-making process. It represents an amount of provision that has already been satisfactorily dealt with and will therefore not need to be identified within the emerging plan. As at the end of 2016 a total of 24.32 million tonnes of permitted reserves existed throughout Gloucestershire.

29. Table 4 shows the impact that existing permitted reserves of crushed rock has upon the overall provision requirement. The result is a reduction to 13.432 million tonnes or the equivalent of 9.25 years worth of meeting the forecast demand.

Table 4: The impact of existing permitted reserves of crushed rock on the provision requirement based on the sixth LAA *(data up to 31/122016)*

Crushed Rock	Equivalent number of Years[#]	Calculated Total (in million tonnes - mt)
Overall provision requirement (see table 2) *(01/01/2017 to 31/12/2042)*	26	37.752 mt
The amount of remaining permitted reserves *(as at 31/12/2016)*	16.75	24.32 mt
Remaining provision requirement *(37.752mt – 24.32mt)*	**9.25**	**13.432 mt**

Provision requirement for crushed rock – local circumstances

30. A key aspect of local plan making is the ability to prepare an effective and realistic plan, which is deliverable[18]. In the case of minerals planning and making provision for aggregates in Gloucestershire, this means acknowledging that local circumstances will have an influence on how this can be achieved.

31. There are two key crushed rock resource areas in Gloucestershire – the Forest of Dean and Cotswolds. Both of these areas have contributed to the county's supply of crushed rock for many years, although they exhibit different characteristics of noteworthy significance[19].

32. The Forest of Dean resource area is largely made up of Carboniferous limestone that has relatively high magnesium content and is characterised as being harder than many other types of limestone. Its properties make it a valuable mineral resource and it is used in the construction industry for concrete and asphalt production, ballast as well as a general fill. The stone has also been known as a source of flux in metal processing, and as a soil conditioner and feed additive for livestock.

33. The resource area is mostly concentrated in the far west of the county. However, it has consistently supplied Gloucestershire's main urban areas, which are located centrally around Gloucester City and Cheltenham. It has also served markets in neighbouring areas (e.g. Worcestershire, Herefordshire, and Monmouthshire) and

[18] National Planning Policy Framework (NPPF), paragraphs 154 and 182
[19] BGS / ODPM Mineral Resource Information to Support National, Regional and Local Planning (Gloucestershire – comprising South Gloucestershire) (Published 2006) - http://www.bgs.ac.uk/downloads/start.cfm?id=2613

further afield in fluctuating proportions (e.g. South-East Wales and the Greater Bristol 'West of England' area).

34. Crushed rock limestone that originates in the Cotswold resource area is from the Jurassic period and forms part of the Inferior and Great Oolite series. It is softer and more porous than the limestone of the Forest of Dean, which means its aggregate potential is far more limited. Generally it performs as a low-grade construction fill. However, some localised resources of limited extent have been reputed to demonstrate frost resistance properties and used in concrete and roadstone production.

35. The Cotswold resource area is considerably more extensive than that of the Forest of Dean and has a wide coverage, constituting most of the eastern part of Gloucestershire. The resource also transcends the county boundary into South Gloucestershire, Oxfordshire, Warwickshire, Wiltshire and Worcestershire. Nevertheless, due to its limitations as an aggregate, it is largely considered a local resource mostly employed within county and the immediate surrounding border areas such as West Oxfordshire and Vale of Evesham.

36. The distinctive characteristics of the county's crushed rock resource areas, has contributed to the establishment of a clear and distinguishable supply trend. The Forest of Dean resources have contributed significantly more to the county's overall supply those sourced from within the Cotswolds. This trend has occurred consistently for at least a number of decades.

37. As consequence, it is reasonable for the relationship between Gloucestershire's two resource areas to be taken into account when determining how best to meet future provision requirements for crushed rock. To achieve this, a 'local approach' is proposed that introduces a weighting equal to a 70:30 sub-division between the two resource areas that represents past, present and future supply patterns. It is applicable to the annualised forecast demand and does not affect the overall provision requirement established through the LAA process, which should remain unchanged.

38. The specific 70:30 weighting relates to the difference in the level of supply from the county's two resource areas. It is very much reflective of the long-term trend that accommodates some degree of fluctuation, which has occurred sometimes on an annual basis or for a small number of years at a time.

39. This weighting also gains support through national policy, which encourages mineral planning authorities to facilitate the maintenance of aggregate landbanks

(which include for crushed rock) from outside of AONB designations[20]. A majority of the Cotswold resource area (the lower weighted area) lies within the Cotswolds AONB.

40. In addition, the proposed weighting has previously been employed as a policy mechanism with the county's adopted minerals local plan. Its justification was rigorously examined and accepted during the plan's public examination[21].

41. Tables 5 and 6 below sets out the local approach using a 70:30 weighting of the annualised forecast demand. It shows that from the Forest of Dean resource area, the requirement is equal to 10.4164 million tonnes and for the Cotswold resource area it is 3.0156 million tonnes.

Table 5: The impact of applying a local approach (weighting) to the annualised forecast demand based on the sixth LAA *(data up to 31/12/2016)*

Crushed Rock	Number of years	Weighted annualised forecast (in million tonnes per annum - mtpa)	Overall Provision Requirement (in million tonnes - mt)
Forest of Dean provision requirement *applying 70% weight of 1.452 mtpa*	26	1.0164 mtpa	(1.0164 x 26) 26.4264 mt
Cotswold provision requirement *applying 30% weight of 1.452 mtpa*	26	0.4356 mtpa	(0.4356 x 26) 11.3256 mt

[20] National Planning Policy Framework (NPPF), section 13, paragraphs 144, bullet point 2
[21] The Adopted Gloucestershire Minerals Local Plan (1997-2006) can be found at: - http://www.gloucestershire.gov.uk/extra/article/108052/Adopted-Minerals-and-Waste-Local-Plans

Table 6: The provision requirements for crushed rock from the county's two resource areas applying both the local approach *(weighted annualised forecast demand)* and accounting for remaining reserves *(data up to 31/12/2016)*

Crushed Rock	**(A)** **Overall provision requirement applying the local approach**	**(B)** **The amount of remaining reserves (as at 31/12/2016)**	**Remaining Provision Requirement (in million tonnes - mt)**
Forest of Dean resource area	26.4264 mt	16.01 mt	(A - B) 10.4164 mt
Cotswold resource area	11.3256 mt	8.31 mt	(A - B) 3.0156 mt
Gloucestershire total	**37.752 mt**	**24.32 mt**	**13.432 mt**

Provision requirement for sand & gravel

42. The emerging Minerals Local Plan for Gloucestershire must consider how it can best facilitate making provision for sand & gravel to satisfy forecast future demand as established through the LAA. Presently, this is equal to 0.742 million tonnes per annum (mtpa).

43. Facilitating provision should occur for the full duration of the plan and also ensure that a sufficiently long enough landbank (i.e. 7 years) will be in place at the end of the plan period.

44. A time horizon of 15 years has been established for the emerging Minerals Local Plan for Gloucestershire employing a base year of 2018. This generates an end date of 2032.

45. Determining the provision requirement for sand & gravel current represents meeting a theoretical demand of 0.742 mtpa for a period of 23 years. This generates a total provision requirement of 17.066 million tonnes of sand & gravel. Table 7 below details how the provision requirement has been calculated: -

Table 7: The provision requirement for sand & gravel based on the sixth LAA *(data up to 31/12/2016)*

Overall Sand & Gravel Provision Requirement Breakdown: -	**Number of Years**	**Overall Provision Requirement (based on 0.742 mtpa)**
Provision to be made up to the plan's base year *(01/01/2017 to 31/12/2017)*	1	(1 x 0.742) 0.742 mt
15-year time horizon of the Minerals Local Plan for Gloucestershire *(01/01/2018 to 31/12/2032)*	15	(15 x 0.742) 11.13 mt
Maintaining a 7yr landbank at the end of the plan *(01/01/2033 to 31/12/2039)*	7	(7 x 0.742) 5.194 mt
Total *(01/01/2017 to 31/12/2039)*	**23**	**17.066 mt**

Provision requirement for sand & gravel – taking account of existing reserves

46. The level of permitted reserves of sand and gravel must also be taken into account when determining how much provision should be considered through the plan-making process. It represents an amount of provision that has already been satisfactorily dealt with and will therefore not need to be made within the emerging plan. As at the end of 2016 a total of 4.41 million tonnes of permitted reserves existed throughout Gloucestershire. Furthermore, during 2017 additional reserves equal to 3.2mt were permitted at Manor Farm near Kempsford[22].

47. Table 8 shows the impact that existing permitted reserves of sand & gravel has upon the overall provision requirement. The result is a reduction to 9.456 million tonnes or the equivalent of 12.74 years worth of meeting the forecast demand.

[22] Planning 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 was granted permission on 15th May 2017. Information on planning applications considered by Gloucestershire County Council can be obtained at: - https://www.gloucestershire.gov.uk/planning-and-environment/planning-applications/search-and-track-planning-applications/

Table 8: The impact of existing permitted reserves of sand & gravel on the provision requirement based on the sixth LAA *(data up to 31/12/2016)*

Sand & Gravel	Equivalent no. of Years[#]	Calculated Total (in million tonnes – mt)
Overall provision requirement (see table 7) *(01/01/2017 to 31/12/2039)*	23	17.066 mt
The amount of remaining permitted reserves *(as at 31/12/2016)*	5.94	4.41 mt
Additional permitted reserves *(since 01/01/2017)*	4.31	3.2 mt
Remaining provision requirement *(17.066mt – 4.41mt – 3.2mt)*	**12.74**	**9.456mt**

Consideration of longer-term forecast demand scenarios

48. The publication plan seeks to make provision for as much as 26 years worth of crushed rock provision and 23 years worth of sand and gravel provision (where landbanks at the end of the 15 year plan period are taken into account). Current national policy advises that making provision should be founded upon past sales trends. However, sales fluctuate year-to-year meaning any defined provision requirements may not always be in-step with demand over the plan period. National guidance advises that average sales over the short-term (the last 3 years) may aid in the early identification of any shifts in trend focused on where this could signal a sustained and notable increase in demand.

National and Sub National Guidelines on future aggregates provision (2005 – 2020)

49. National policy states that MPAs should take account of published national and sub-national guidelines on future aggregate provision when preparing a minerals local plan[23]. These guidelines are based on an analysis of anticipated future demand and likely supply options. Their purpose is to help establish future aggregate requirements that MPAs can work towards when preparing local plans. These requirements can also be applied when deciding on planning applications. The most recent guidelines cover the period between 2005 and 2020 and are based on data analysed during the late 1990s and early 2000s. For Gloucestershire the guidelines generate an annual local apportionment equal to 2.25 mtpa for the supply of crushed rock and 1.0mtpa for sand and gravel.

[23] National Planning Policy Framework (NPPF) paragraph 145, bullet point 3

50. Table 9a presents Gloucestershire's aggregate sales over the period between 2007 and 2016. It also shows what actual sales represented as a percentage of the local apportionment derived from the current national guidelines. At no stage did actual sales exceed the apportionment, although for a number of years they were close to 90%, particularly during the pre- / early recession period. Table 9b shows how the 10 year average aggregate sales from 2007 to 2016 and the 3 year average aggregate sales from 2014 to 2016 compares to the national guidelines. The conclusion drawn from this exercise is that the 10 year average sales figure represents the more appropriate means available for determining future aggregate requirements.

51. National guidelines for 2005 to 2020 remain in force and will do for at least the next few years. They are a material consideration and should be given some consideration through the preparation of Local Aggregate Assessments and plan making. However, the local apportionment figures are increasingly limited in their significance and ideally should be subject to a comprehensive review. At this point in time it is not known whether the government is looking to carry out such a review or will seek to adopt a different approach after 2020.

Table 9a: Aggregate sales between 2007 and 2016 and as a percentage of the local apportionment of the national guidelines 2005 - 2020 [24]

	Year of aggregate sales (in million tonnes per annum)									
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Crushed Rock - Actual sales	2.08	1.61	1.17	1.2	1.3	1.18	1.36	1.51	1.46	1.65
Actual sales as a % of the National Guidelines (NGs) (2.25 mtpa)	92%	72%	52%	53%	58%	52%	64%	67%	65%	73%
Sand and gravel – Actual sales	0.9	0.66	0.93	0.9	0.85	0.78	0.68	0.43	0.59	0.70
Actual sales as a % of the National Guidelines (NGs) (1.0 mtpa)	90%	66%	93%	90%	85%	78%	68%	43%	59%	70%

[24] Extracted from table 1 of the Sixth LAA for Gloucestershire

Table 9b: Average aggregate sales for 10 years (2007 to 2016) and 3 years (2014 to 2016) and the percentage different with the local apportionment of the national guidelines 2005 – 2020.

	Averages of annual sales (in million tonnes per annum)	
	10-year average sales	**3-year average sales**
Crushed Rock	1.452	1.540
Average sales as a % of the National Guidelines (NGs) (2.25 mtpa)	65%	68%
Sand and gravel	0.742	0.573
Average sales as a % of the National Guidelines (NGs) (1.0 mtpa)	74%	57%

Other long-term aggregates demand & supply scenarios covering the period up to 2030

52. The Mineral Products Association has published a national long-term aggregate demand and supply forecast for the period 2016 to 2030[25]. It's based on the application of future demand and supply scenarios[26]. MPAs are under no obligation or requirement through government policy or guidance to acknowledge and / or review the publication by the Mineral Products Association. However, in the absence of any other detailed medium to longer view on future aggregate requirements for the country, it is of some value to analysis the forecast in respect of the broad strategy put forward in the emerging mineral plan for Gloucestershire.

2.1 The report presents two scenarios founded upon considered impacts of future economic growth, population growth and trends in material intensity (measured as the volume of aggregate per £1,000 of construction). They also attempt to take account of other external factors such as the economic impact of the decision to leave the European Union. The key difference between the two scenarios is the degree to which material intensity may change over the forecast period. For one scenario (described as the baseline) no change in material intensity is envisaged to occur from 2018 onwards. However, for the second scenario (known as the low-material intensity scenario) it is assumed further material intensity reductions will take place. This is based upon continued construction efficiency and the uptake of

[25] The report can be accessed from http://www.mineralproducts.org/17-release16.htm

alternatives to aggregates. The second scenario also proposes that reductions in material intensity will outpace overall construction output

2.2 Table 10 illustrates the difference in the amount of provision for crushed rock and sand and gravel between using the 10-year average sales (2007 to 2016) as set out in the Sixth LAA for Gloucestershire; or the local apportionment of the National Guidelines 2005 to 2020; or either of the two Mineral Products Association scenarios. This exercise was carried out in respect of annual provision requirements as well as over almost all of the plan period up to 2030.

2.3 In summary the results show very little difference would occur between using the 10-year average sales and the two Mineral Production Association scenarios. This is particularly the case with the low material intensity scenario.

Table 10:- The annual expression and overall amount of theoretical provision for aggregates over the forecast period 2016 to 2030 through applying: - the 10-year sales average (2007 to 2016); the local apportionment of the National Guidelines (2005 – 2020); and the Mineral Production Association (2016-2030) scenarios

	Annual expression of theoretical provision over the forecast period (2016 to 2030) (in million tonnes per annum)		**Overall amount of theoretical provision over the forecast period (2016 to 2030)** (in million tonnes)	
	Crushed rock	**Sand and gravel**	**Crushed rock**	**Sand and gravel**
10-year average sales (2007 – 2016)	**1.452mtpa**	**0.742mtpa**	**21.978mt[#]**	**11.088mt[#]**
Local apportionment of the current National Guidelines (2005-2020)	2.25mtpa	1.0mtpa	33.75mt	15.0mt
Mineral Products Association national 'baseline' scenario[+] Applied to Gloucestershire	1.608mpta	0.822mpta	24.12mt	12.33mt
Mineral Products Association national 'low material intensity' scenario[+] Applied to Gloucestershire	1.450mpta	0.741mtpa	21.75mt	11.12mt

[#] The figures presented here represent a combination of 14 years of forecast 'plus' 1 year of actual data taken from the 2016 sales data.

+ The underlying forecast annual change in demand at the national level has been simply applied to the local dataset. No regional or local variation in assumptions has been included at this time. The Mineral Products Association is considering the feasibility of constructing a more detailed regional-level forecast in the future, which would introduce more realistic local nuances.

Section 4 | the plan's approach to facilitating the delivery of aggregate mineral requirements

National policy and guidance

53. Mineral planning authorities should facilitate steady and adequate supplies of aggregates by allocating within their plans – in order of priority, designated Specific Sites; designated Preferred Areas; and designated Areas of Search[27].

54. National guidance offers a description of each type of designation and advises that the amount of information on the quality and quantity of underlying minerals and interest shown by landowners and operators should be key in deciding, which type should be used.

55. For Specific Sites viable mineral resources must exist and their potential extraction should be supported by landowners. The development of the site must also have a strong likelihood of being acceptable in planning terms.

56. Preferred Areas should have known resources and have a reasonable prospect of securing permission. Whilst, Areas of Search need to encompass areas where there is knowledge of mineral resources, but are less certain than Preferred Areas in securing any necessary planning permissions.

57. The priority given to Specific Sites is recognition of their greater degree of certainty and thus potential to facilitate steady and adequate supplies of aggregates. They are afforded better quality and more reliable data and therefore attain a higher prospect of delivery[28].

A local approach to designating areas for future aggregate working

58. Section three of this supporting evidence paper, explains the quantity of aggregates that the Minerals Local Plan for Gloucestershire should seek to make provision for: -

10.4164 mt of crushed rock aggregate from within the Forest of Dean resource area;
3.0156 mt of crushed rock aggregate from within the Cotswold resource area; and
9.456 mt of sand & gravel aggregate from throughout the county's resource areas.

[27] Planning Practice Guidance (PPG) - Minerals (section), paragraph: 008, reference ID: 27-008-20140306
[28] Planning Practice Guidance (PPG) - Minerals (section), paragraph: 009, reference ID: 27-008-20140306

59. Determining whether there is sufficient local capacity to achieve the plan's provision requirements is a crucial plan-making task. It involves deciding potential locations and types of designations for future aggregate working aligned with national policy and guidance.

60. The County Council undertook a public consultation on the draft minerals local plan that included 10 candidate site allocations. These allocations evolved from a previous suite of 19 initial candidate site options presented in the 2014 Site Options and Draft Policy Framework consultation (an additional site option was also consultation upon in early 2015). The candidate allocations included a mix of Specific Sites, Preferred Areas and Areas of Search. Appendix 1 of this evidence paper provides a comprehensive review of the sites selection process up to and including the publication plan.

61. The publication plan contains a total of 7 allocations largely made up of Preferred Areas. Table 11 presents information for each allocation in relation to the contribution it could make to meet the plan's overall provision requirements for crushed rock and sand and gravel. The contribution toward supply is based on future working of aggregates being delivered 'at capacity' measured through annual output. For the purposes of this paper, the term 'at capacity' means aggregate working which takes place at 100% (the maximum) capacity at each site as established within the Detailed Development Requirements for each of the plan's allocations. This could be the permitted capacity already in place with existing operations or a theoretically potential capacity presented or acknowledged by prospective operators or which has been established through supporting technical assessments or studies.

Table 11: The allocations contained in the publication plan, their potential yields and contribution towards Gloucestershire's aggregate supply

Publication plan allocation	Aggregate mineral / resource area	Type of designation	Potential total yield (overall contribution to supply) (in million tonnes – mt)	Maximum productive capacity ('at capacity') (in million tonnes per annum - mtpa)
Allocation 01: Land east of Stowe Hill Quarry	Crushed rock limestone / Forest of Dean	Preferred Area	Between 10 and 17 mt	0.6 mtpa
Allocation 02: Land west of Drybrook Quarry	Crushed rock limestone / Forest of Dean	Preferred Area	Less than 4.0 mt	0.25 mtpa
Allocation 03: Depth extension to Stowfield Quarry	Crushed rock limestone / Forest of Dean	Preferred Area	7.4 mt	0.8 mtpa
Allocation 04: Land north west of Daglingworth Quarry	Crushed rock limestone / Cotswolds	Preferred Area	Around 9.0 mt	0.25 mtpa
Allocation 05: Land south and west of Naunton Quarry	Crushed rock limestone / Cotswolds	Preferred Areas	Up to10 mt	0.5 mtpa
Allocation 6: Land east of Down Ampney	Sand & Gravel / Upper Thames Valley	Preferred Area	7.8 mt	0.5 mtpa
Allocation 07: Land at Lady Lamb Farm, Fairford	Sand & Gravel / Upper Thames Valley	Area of Search	Less than 3.0 mt	0.25 mtpa

Table 12 illustrates how the suite of allocations set out in the publication plan may be able to accommodate a degree of change in local aggregate demand. This exercise is described as a 'stress test' of the plan's proposed aggregate provision. It assesses how aggregate working 'at capacity' from within the plan's allocations may translate to the delivery of 5 different hypothetical scenarios of demand. The results are presented as a % contribution that would arise from the working of the

allocations across the plan's resource areas. Demand is quantified for this exercise through the ability to meet different levels of annualised supply. All of the scenarios employ the assumption that the plan's aggregate strategy would remain – with a local distribution of supply for the county's crushed rock resources (i.e. continuation of the 70:30 split for crushed rock between the Forest of Dean and Cotswold resource areas)[29]. The 5 scenarios are described as follows: -

1. Supply equal to the relevant LAA rate (as at 2016)
2. Supply equal to the relevant LAA rate (as at 2016) plus 10%;
3. Supply equal to the relevant LAA rate (as at 2016) plus 20%;
4. Supply equal to the relevant LAA rate (as at 2016) plus 50%;
5. Supply equal to meeting the annualised expression of the local apportionment of the National Guidelines (2005 – 2020).

Table 12: The allocations contained in the publication plan grouped by resource area and their percentage contribution towards meeting the annual expression of 5 hypothetical scenarios of demand

Allocations grouped by resource area	**Contribution (at capacity) towards aggregate supply**	***% contribution (at capacity) towards meeting the annual expression of the 5 hypothetical scenarios of demand***				
		LAA Figure (2016)	***LAA (2016) +10%^***	***LAA (2016) +20%***	***LAA (2016) +50%***	***National Guidelines (2005- 2020)***
Forest of Dean resource area (allocations 01, 02, 03)	1.64 mtpa	161%	139%	134%	108%	104%
Cotswold resource area (allocations 04, 05)	0.75 mtpa	*172%*	*157%*	*143%*	*115%*	*111%*
Total crushed rock (allocations 01 – 05)	**2.39 mtpa**	***165%***	***150%***	***137%***	***110%***	***106%***
Upper Thames Valley resource area (allocations 06, 07)	0.75 mtpa	*101%*	*92%*	*84%*	*67%*	*75%*

^ The 10% figure is calculated using the LAA rate for 2016 (1.452mtpa) and adding a further 10% or 0.1452mtpa. LAA +10% = 1.5972 mtpa

29 See section 8 and the supporting text to policy MW01 of the Publication Minerals Local Plan for Gloucestershire (2018 – 2032. This can be obtained at: - https://www.gloucestershire.gov.uk/planning-and-environment/planning-policy/minerals-local-plan-for-gloucestershire/emerging-minerals-local-plan-for-gloucestershire-2018-2032/

62. The conclusion drawn from table 12 is that the suite of plan allocations contained within the publication plan could theoretically accommodate varying possible uplifts in aggregate demand over the plan's time horizon. However, it is acknowledged that limitations exist in respect of sand and gravel, where more significant increases in demand (applying the LAA rate (as at 2016) plus 20% upwards) could present a local capacity challenge. This matter will undoubtedly require very careful monitoring through the plan's implementation and could be a key indicator either prior to / or at the 5-year plan review stage. Aggregate supply is a matter that is already accommodated in the established monitoring regime for minerals as set out in the Gloucestershire Authority Monitoring Report (AMR) and Local Aggregates Assessment (LAA)[30]. It is also outlined as a requirement of the plan's monitoring schedule[31].

[30] The Gloucestershire LAA series (from 2013 onwards) can be obtained at: - https://www.gloucestershire.gov.uk/planning-and-environment/planning-policy/minerals-local-plan-for-gloucestershire/evidence-base-for-the-minerals-local-plan-for-gloucestershire/. The Gloucestershire AMR series (from 2004/05 onwards) can be obtained at: - https://www.gloucestershire.gov.uk/planning-and-environment/planning-policy/authorities-monitoring-report-amr/

[31] See Section 12 of the Publication Minerals Local Plan for Gloucestershire (2018 – 2032). This can be obtained at: https://www.gloucestershire.gov.uk/planning-and-environment/planning-policy/minerals-local-plan-for-gloucestershire/emerging-minerals-local-plan-for-gloucestershire-2018-2032/

Candidate Allocations | Site Options & Draft Policy Framework consultation (2014) **Basic allocation information**	**Candidate Allocations |** Draft Minerals Local Plan for Glos. (2018-2032) consultation (2016) **Proposed changes made following the Site Options & Draft Policy Framework consultation**	**Plan Allocations |** Publication Minerals Local Plan for Glos. (2018 – 2032) (2018) **Proposed changes made following the Draft Minerals Local Plan consultation**
CRFD1: Stowe Hill / Clearwell **(Part of the Forest of Dean Resource Area)** • The candidate allocation was actively promoted by a prospective operator and / or landowner; • It covered 195.5ha across 3 parcels of land (A, B, C); • The potential yield was estimated to support around 35 years of continued working; • Area A was an unworked (with no permission) parcel of land previously identified in the 2003 adopted MLP. Areas B and C were green field extensions to the existing mineral operations at Stowe Hill Quarry.	**Renamed – Allocation 01: Preferred Area at Stowe Hill / Clearwell** • Areas A and C were removed following discussions with the prospective operator regarding concern over deliverability; • The revised boundaries contained an area of around 54ha with a potential yield of between 10 and 17mt.	**Renamed – Allocation 01: Land east of Stowe Hill Quarry** • No further changes have been made to the candidate allocation area or its delineated boundaries. • Detailed Development Requirements have been subject to notable revisions and additions. In summary these include a more rigorous analysis of: - possible impacts on public health; economic impacts; vehicular routing including impacts on the Lydney AQMA and other highways-related restrictions; water resources and the inter-relationship to catchment-scale matters of interest; flood risk – particularly accounting for the enhanced risk associated with climate change impacts; soil resources; historic assets in the locality and their setting including the presence of archaeology; the protection of and potential for securing enhancement to the natural environment – with a very strong emphasis on the management of and monitoring the sensitivity of the nearby Slade Brook SSSI; and the opportunities and possible constraints that may arise during the implementation of site restoration and aftercare; • The allocation name has also been renamed to *Allocation 01: Land east of Stowe Hill Quarry*. This is to clarify the location being allocated and the likely operational circumstances surrounding future working. (e.g. as an extension to an existing working)
CRFD2: Drybrook **(Part of the Forest of Dean Resource Area)** • The candidate allocation was an unworked (with no permission) parcel of land previously identified in the 2003 adopted MLP; • It was a green field extension to the existing permitted mineral operations at Drybrook Quarry; • It covered 11 ha with a potential yield of up to 4.5mt.	**Renamed – Allocation 02: Preferred Area at Drybrook** • A small parcel of land in the south west corner of the candidate allocation was removed at the request of the landowner; • The revised boundary contained an area of 10ha with a potential yield of less than 4mt.	**Renamed – Allocation 02: Land west of Drybrook Quarry** • No further changes have been made to the candidate allocation area or its delineated boundaries. • Detailed Development Requirements have been subject to notable revisions and additions. In summary these include a more rigorous analysis of: - possible impacts on public health; economic impacts; water resources and the inter-relationship to catchment-scale matters of interest; flood risk – particularly accounting for the enhanced risk associated with climate change impacts; soil resources; historic assets in the locality and their setting including the presence of archaeology; the protection of and potential for securing enhancement to the natural environment; and the opportunities and possible constraints that may arise during the implementation of site restoration and aftercare; • The candidate allocation name has been changed to *Allocation 02: Land west of Drybrook Quarry*. This is to clarify the location being allocated and likely operational circumstances surrounding future working (e.g. as an extension to an existing working).

Candidate Allocations | Site Options & Draft Policy Framework consultation (2014) **Basic allocation information**	**Candidate Allocations |** Draft Minerals Local Plan for Glos. (2018-2032) consultation (2016) **Proposed changes made following the Site Options & Draft Policy Framework consultation**	**Plan Allocations |** Publication Minerals Local Plan for Glos. (2018 – 2032) (2018) **Proposed changes made following the Draft Minerals Local Plan consultation**
CRFD3: Stowfield **(Part of the Forest of Dean Resource Area)** • The candidate allocation was made up of a parcel of land to the north of the existing Stowfield quarry (Area A). • It was a residual unworked (with no permission) parcel of land previously identified in the 2003 adopted MLP; • It covered 3ha, but the potential yield was unknown; • An additional site options known as (Area C) also formed part of CRFD3. • Area C was a deepening proposal within the existing permitted Stowfield Quarry; • It covered about 20ha with a potential yield of around 7.4mt	**Renamed – Allocation 03: Preferred Area at Stowfield** • Area A was removed following discussions with the prospective operator regarding concern over deliverability.	**Renamed – Allocation 03: Depth extension to Stowfield Quarry** • No further changes have been made to the candidate allocation area or its delineated boundaries; • Detailed Development Requirements for the allocation have been subject to notable revisions and additions. In summary these include a more rigorous analysis of: - possible impacts on public health; economic impacts; water resources and the inter-relationship to catchment-scale matters of interest; flood risk – particularly accounting for the enhanced risk associated with climate change impacts; soil resources – with a focus on the impact to already safeguarded resources; the protection of and potential for securing enhancement to the natural environment; and the opportunities and possible constraints that may arise during the implementation of site restoration and aftercare; • The allocation name has been changed to Allocation 03: Depth extension to Stowfield Quarry. This is to clarify the location being allocated and likely operational circumstances surrounding future working (e.g. as an extension to an existing working).
CRFD4: Hewelsfield **(Part of the Forest of Dean Resource Area)** • The candidate allocation was actively promoted by the landowner; • It was a green field location with no previous permitted mineral working; • It covered 36ha with a potential yield of around 26mt	**CANDIDATE ALLOCATION WAS REMOVED AND NOT TAKEN FORWARD INTO THE DRAFT MLP** • No policy position was established to support the proposed allocation of CRFD4; • It represented a standalone, green field aggregate mineral working without any location-specific justification within a designated AONB; • National policy is clear in seeking to discourage the maintenance of aggregate landbanks within AONBs therefore progressing this site would run contrary to this; • Sufficient alternative options that are less constrained and more deliverable were available over the projected time horizon of the plan; • No evidence was presented to indicate that key issues such as a safe and suitable access could be achieved.	n/a

Candidate Allocations | Site Options & Draft Policy Framework consultation (2014) **Basic allocation information**	**Candidate Allocations |** Draft Minerals Local Plan for Glos. (2018-2032) consultation (2016) **Proposed changes made following the Site Options & Draft Policy Framework consultation**	**Plan Allocations |** Publication Minerals Local Plan for Glos. (2018 – 2032) (2018) **Proposed changes made following the Draft Minerals Local Plan consultation**
CRCW1: Daglingworth **(Part of the Cotswolds Resource Area)** • The candidate allocation was an unworked (with no permission) parcel of land previously identified in the 2003 adopted MLP; • It was a green field extension to the existing permitted mineral operations at Daglingworth Quarry • It covered 17ha with a potential yield of up to 9mt.	**Renamed – Allocation 04: Preferred Area at Daglingworth** • No changes were made to the candidate allocation	**Renamed – Allocation 04: Land north west of Daglingworth Quarry** • No further changes have been made to the candidate allocation area or its delineated boundaries. • Detailed Development Requirements for the allocation have been subject to notable revisions and additions. In summary these include a more rigorous analysis of: - possible impacts on public health; economic impacts; water resources and the inter-relationship to catchment-scale matters of interest; flood risk – particularly accounting for the enhanced risk associated with climate change impacts; soil resources; historic assets in the locality and their setting including the presence of archaeology; the protection of and potential for securing enhancement to the natural environment; and the opportunities and possible constraints that may arise during the implementation of site restoration and aftercare. • The allocation name has been changed to *Allocation 04: Land north west of Daglingworth Quarry*. This is to clarify the location being allocated and likely operational circumstances surrounding future working (e.g. as an extension to an existing working).
CRCW2: Huntsman's **(Part of the Cotswold Resource Area**) • The candidate allocation was actively promoted by a prospective operator and / or landowner; • It covered 107ha made up of 3 parcels of land (Area A,B and C) with a potential yield of 20.7 and 23mt; • All areas represented green field extensions to the existing permitted mineral operations at Huntsman's Quarry; • Areas A and B were unworked (with no permission) parcels of land previously identified in the 2003 adopted MLP.	**Renamed – Allocation 05: Preferred Area at Huntsman's** • Part of Area A was revised to remove land currently forms part of Tinker's Barn Quarry; • Area B was removed following discussions with the prospective operator regarding concern over deliverability; • The revised boundary contained an area of 39ha with a potential yield of up to 10mt.	**Renamed – Allocation 05: Land south and west of Naunton Quarry** • No further changes have been made to the candidate allocation area or its delineated boundaries. • Detailed Development Requirements for the allocation have been subject to notable revisions and additions. In summary these include a more rigorous analysis of: - possible impacts on public health; economic impacts; water resources and the inter-relationship to catchment-scale matters of interest; flood risk – particularly accounting for the enhanced risk associated with climate change impacts; soil resources; historic assets in the locality and their setting including the presence of archaeology; the protection of and potential for securing enhancement to the natural environment; and the opportunities and possible constraints that may arise during the implementation of site restoration and aftercare. • The allocation name has been changed to *Allocation 05: Land south and west of Naunton Quarry*. This is to clarify the location being allocated following the existing quarry name change and likely operational circumstances surrounding future working (e.g. as an extension to an existing working).

Candidate Allocations | Site Options & Draft Policy Framework consultation (2014) **Basic allocation information**	**Candidate Allocations |** Draft Minerals Local Plan for Glos. (2018-2032) consultation (2016) **Proposed changes made following the Site Options & Draft Policy Framework consultation**	**Plan Allocations |** Publication Minerals Local Plan for Glos. (2018 – 2032) (2018) **Proposed changes made following the Draft Minerals Local Plan consultation**
CRCW3: Three Gates **(Part of the Cotswold Resource Area)** • The candidate allocation was actively promoted by a prospective operator and / or landowner; • It covered 8ha with a potential yield of 3.5 to 4.5mt; • It represented a green field extension to the existing permitted mineral operations at Three Gates Quarry	**CANDIDATE ALLOCATION WAS REMOVED AND NOT TAKEN FORWARD INTO THE DRAFT MLP** • It represented a green field extension to an existing permitted mineral working within a designated AONB. Extraction has largely been previously justified on the grounds of contributing to the supply of local natural building stone. Limited aggregate working has been allowed under strict conditions in the past but only to support operational matters and resource efficiency; • National policy is clear in seeking to discourage the maintenance of aggregate landbanks within AONBs therefore progressing this site would run contrary to this – particularly in terms of the risk of the proliferation of larger-scale aggregate working across the designation; • Allowing extended working could also risk prejudicing the delivery of the agreed site restoration.	n/a
CRCW4: Oathill **(Part of the Cotswold Resource area)** • The candidate allocation was actively promoted by a prospective operator and / or landowner; • It covered 15.5ha with a potential yield of 1 to 2 mt; • It represented a green field extension to the existing permitted mineral operations at Oathill Quarry	**CANDIDATE ALLOCATION WAS REMOVED AND NOT TAKEN FORWARD INTO THE DRAFT MLP** • It represented a green field extension to an existing permitted mineral working within a designated AONB. Extraction has largely been previously justified on the grounds of contributing to the supply of local natural building stone. Limited aggregate working has been allowed under strict conditions in the past but only to support operational matters and resource efficiency; • National policy is clear in seeking to discourage the maintenance of aggregate landbanks within AONBs therefore progressing this site would run contrary to this – particularly in terms of the risk of the proliferation of larger-scale aggregate working across the designation; • Allowing extended working could also risk prejudicing the delivery of the agreed site restoration.	n/a

Candidate Allocations | Site Options & Draft Policy Framework consultation (2014) **Basic allocation information**	**Candidate Allocations |** Draft Minerals Local Plan for Glos. (2018-2032) consultation (2016) **Proposed changes made following the Site Options & Draft Policy Framework consultation**	**Plan Allocations |** Publication Minerals Local Plan for Glos. (2018 – 2032) (2018) **Proposed changes made following the Draft Minerals Local Plan consultation**
SGCW1: Dryleaze Farm / Shorncote **(Part of the Upper Thames Valley (UTV) resource area)** • It was a residual unworked (with no permission) parcel of land previously identified in the 2003 adopted MLP; • It represented a green field extension to the existing permitted mineral operations at Dryleaze Farm. • It covered 1.5ha with an unknown potential yield.	**CANDIDATE ALLOCATION WAS REMOVED AND NOT TAKEN FORWARD INTO THE DRAFT MLP** • No mineral operator interest showed in promoting the allocation over the time horizon of the plan. • Although unconfirmed, the potential yield was deemed likely to be insignificant to justify its allocation; • Questionable as the impact of new working upon existing nearby operations particularly as this is in transition from extraction to a site under restoration; • However, in the event all potential site-related constraints can be satisfactorily overcome, the working of SGCW1 could still possibly come forward under policy MA02 if robustly justified.	n/a
SGCW2: Cerney Wick **(Part of the Upper Thames Valley (UTV) resource area)** • It was an unworked (with no permission) parcel of land previously identified in the 2003 adopted MLP; • It represented a green field extension to the existing permitted mineral operations at Cerney Wick Quarry; • It covered 6 ha with a potential yield of up to 0.5mt.	**CANDIDATE ALLOCATION WAS REMOVED AND NOT TAKEN FORWARD INTO THE DRAFT MLP** • Notable deliverability challenges including multiple land ownership with no evidence of a co-ordinated land management strategy for mineral working purposes. • No mineral operator interest shown in promoting the allocation over the time horizon of the plan; • Estimated yield not supported by evidence and it is highly questionable as to whether it is sufficient to justify an allocation; • However, in the event all potential site-related constraints can be satisfactorily overcome, the working of SGCW2 could still possibly come forward under policy MA02 if robustly justified.	n/a
SGCW3: Horcott/Lady Lamb Farm **(Part of the Upper Thames Valley (UTV) resource area)** • It was two unworked (with no permission) parcels of land (Western (A) and Eastern (B)) previously identified in the 2003 adopted MLP; • The eastern parcel represented a green field that could possibly be an extension to	**Renamed – Allocation 08: Area of Search at Lady Lamb Farm, Fairford** • Area B was removed as a result no further landowners or mineral operator interest; • The revised boundary contained an area of 48ha with a potential yield of less than 3mt.	**Renamed – Allocation 07: Land at Lady Lamb Farm, west of Fairford** • No further changes have been made to the candidate allocation area or its delineated boundaries; • Detailed Development Requirements for the allocation have been subject to notable revisions and additions. In summary these include a more rigorous analysis of: - possible impacts on public health; economic impacts; highway routing – with a focus on avoiding impacts to Fairford and Lechlade; water resources and the inter-relationship to catchment-scale matters of interest; flood risk – particularly accounting for the enhanced risk associated with climate change impacts; soil resources; historic assets in the locality and their setting including the presence of

Candidate Allocations | Site Options & Draft Policy Framework consultation (2014) **Basic allocation information**	**Candidate Allocations |** Draft Minerals Local Plan for Glos. (2018-2032) consultation (2016) **Proposed changes made following the Site Options & Draft Policy Framework consultation**	**Plan Allocations |** Publication Minerals Local Plan for Glos. (2018 – 2032) (2018) **Proposed changes made following the Draft Minerals Local Plan consultation**
previous permitted mineral operations at Horcott Quarry; • It covered 75.5ha with a potential yield of upwards of 3mt.		archaeology; the protection of and potential for securing enhancement to the natural environment; and the opportunities and possible constraints that may arise during the implementation of site restoration and aftercare. • The allocation name has been changed to *Allocation 07: Land at Lady Lamb Farm, west of Fairford*. This is to clarify the location being allocated and the re-ordering of plan's allocations.
SGCW4: Kempsford / Whelford **(Part of the Upper Thames Valley (UTV) resource area)** • It included unworked (with no permission) parcels of land previously identified in the 2003 adopted MLP; • It was made up of 6 parcels of land (Areas A to F) • All parcels of land represented green field extensions to existing permitted mineral operations at Manor Farm Quarry; • It covered a total area of174ha with a potential yield of up to 6m.	**Renamed – Allocation 06 Specific Site at Manor Farm Kempsford and Allocation 09 Areas of Search at Land Between Kempsford and Whelford** • The candidate allocation was divided into 2 separate allocations (made of Areas B, D, E and F – known as allocation 09 and Area C – known as allocation 06); • Area C became a 'Specific Site' due to the presence of an undetermined planning application that was awaiting the completion of a legal agreement. Areas B, D, E and F were considered as an Area of Search due to no immediate operator commitment to progress this allocation within the time horizon of the plan; • Area A was removed due to the likely insufficient yield to justify an allocation and no further landowners or mineral operator interest; • The revised boundary still contained an area of close to 174ha with a potential yield of around 6mt.	**CANDIDATE ALLOCATION (06) WAS REMOVED AND NOT TAKEN FORWARD INTO THE PUBLICATION PLAN** • Planning permission for sand & gravel working was granted on Allocation 06 between the Draft Minerals Local Plan consultation and preparation of the Publication Plan; • Candidate allocation 06 now forms part of the sand & gravel landbank for the county. Although this will not be formally identified until the 7th LAA (data up to 2017) is published. It is however acknowledged within the 6th LAA (data up to 2016). **CANDIDATE ALLOCATION (09) WAS REMOVED AND NOT TAKEN FORWARD INTO THE PUBLICATION PLAN** • Due to the recent permission for sand & gravel working over candidate Allocation 06, it is extremely unlikely that any working of the parcels of land that make up Allocation 09 would be delivered during the time horizon of the plan. • This is principally due to the detailed requirements concerning the management of water resource, flood risk, bird strike hazard and site restoration associated with the working of Allocation 06. The planning permission sets out a strict sequential programme of phased working that is envisaged to last well beyond the plan's end date of 2032. Any working carried out within Allocation 09 would need to be done in a holistic manner and directly linked, and without prejudice, to the agreed working of Allocation 06. The likely complexity associated with working Allocation 09 also brings into question the prospect of achieving the estimated yield (close to 3mt) and therefore the justification to allocate; • However, due to the known presence of potentially valuable sand & gravel mineral resources, it is still possible that future working could be achieved. If a proposal was to be brought forward within the timeframe of the plan under policy MA02, a robust justification based on need would be required alongside a rigorous assessment to prove how site-specific constraints could be effectively dealt with.

Candidate Allocations | Site Options & Draft Policy Framework consultation (2014) **Basic allocation information**	**Candidate Allocations |** Draft Minerals Local Plan for Glos. (2018-2032) consultation (2016) **Proposed changes made following the Site Options & Draft Policy Framework consultation**	**Plan Allocations |** Publication Minerals Local Plan for Glos. (2018 – 2032) (2018) **Proposed changes made following the Draft Minerals Local Plan consultation**
SGCW5: Down Ampney **(Part of the Upper Thames Valley (UTV) resource area)** • The candidate allocation was actively promoted by a prospective operator and / or landowner; • It was made up of three parcels of land (Areas A, B, C); • Area A was subject to a planning application involving sand & gravel working • All areas represented green field locations with no previous permitted mineral working • It covered a total area of 341.5ha with a potential yield of around 15mt **SGCW6: Charlham Farm** **(Part of the Upper Thames Valley (UTV) resource area)** • The candidate allocation was actively promoted by a prospective operator and / or landowner; • It represented a green field location with no previous permitted mineral working; • It covered an area of 145.5ha with a potential yield of between 4 and 5mt	**Renamed – Allocation 10: Areas of Search at Down Ampney and Charlham Farm** • A change in ownership of the land covering SGCW5 cast some doubt and uncertainty as to the level of interest in pursing mineral working across the candidate allocation. This resulted in the 'Area of Search' status being afforded to it. • In addition, Down Ampney and the Charlham Farm (SGCW6) candidate allocation were merged. This was to reflect similar diminished interest in mineral working in this locality and recognition of the continued single landownership; • The revised boundary contained an area of 488ha with a potential yield of around 15mt.	**Renamed –Allocation 06: Land south east of Down Ampney** • The area of the allocation has been significantly reduced mostly due to the removal of the parcel of land at Charlham Farm; • The removal of Charlham Farm arose following discussions with interested parties about the likelihood of it coming forward within the time horizon of the plan as a result of renewed interest in the area at Down Ampney; • Delineated boundaries of the remaining allocation have also been re-drawn. The southern and south-western boundaries have retreated northwards away from the administrative boundary with Wiltshire. The north-eastern boundary has also retreated away from Marston Meysey. • Status revised from an 'Area of Search' to a 'Preferred Area'. • Detailed Development Requirements have been subject to notable revisions and additions. In summary these include a more rigorous analysis of: - possible impacts on public health; economic impacts; water resources and the inter-relationship to catchment-scale matters of interest; flood risk – particularly accounting for the enhanced risk associated with climate change impacts; soil resources; historic assets in the locality and their setting including the presence of archaeology; the protection of and potential for securing enhancement to the natural environment; and the opportunities and possible constraints that may arise during the implementation of site restoration and aftercare. • The allocation name has been changed to *Allocation 06: Land south east of Down Ampney*. This is to clarify the location being allocated following notable changes in the allocation's area and boundaries; and the change in its status as a preferred area.

Candidate Allocations | Site Options & Draft Policy Framework consultation (2014) **Basic allocation information**	**Candidate Allocations |** Draft Minerals Local Plan for Glos. (2018-2032) consultation (2016) **Proposed changes made following the Site Options & Draft Policy Framework consultation**	**Plan Allocations |** Publication Minerals Local Plan for Glos. (2018 – 2032) (2018) **Proposed changes made following the Draft Minerals Local Plan consultation**
SGCW7: Wetstone (Whetstone) Bridge **(Part of the Upper Thames Valley (UTV) resource area)** • The candidate allocation was actively promoted by a prospective operator and / or landowner; • It represented a green field location with no previous permitted mineral working, although was close by to the existing mineral operations at Roundhouse Farm ;(located in Wiltshire); • It was subject to a planning application for sand & gravel working at the time it was promoted; • It covered about 1ha with a potential yield of around 0.6mt	**CANDIDATE ALLOCATION WAS REMOVED AND NOT TAKEN FORWARD INTO THE DRAFT MLP** • Planning permission was granted between the Site Options & Draft Policy Framework consultation and the preparation of the Draft Minerals Local Plan. • The site now forms part of the sand & gravel landbank for the county and has been reported as such since the publication of the 5th LAA (data up to 2015).	n/a
SGCW8: Spratsgate Lane **(Part of the Upper Thames Valley (UTV) resource area)** • The candidate allocation was actively promoted by a prospective operator and / or landowner; • It represented a green field location with no previous mineral working; although was close by to the existing mineral operations at Shorncote Quarry; • It was subject to a planning application for sand & gravel working at the time it was promoted; • It covered 9ha with a potential yield of around 0.3mt	**CANDIDATE ALLOCATION WAS REMOVED AND NOT TAKEN FORWARD INTO THE DRAFT MLP** • Planning permission was granted between the Site Options & Draft Policy Framework consultation and the preparation of the Draft Minerals Local Plan. • The site now forms part of the sand & gravel landbank for the county and has been reported as such since the publication of the 5th LAA (data up to 2015).	n/a

Candidate Allocations | Site Options & Draft Policy Framework (2014) consultation **Basic allocation information**	**Candidate Allocations |** Draft Minerals Local Plan for Glos. (2018-2032) consultation (2016) **Proposed changes made following the Site Options & Draft Policy Framework consultation**	**Plan Allocations |** Publication Minerals Local Plan for Glos. (2018 – 2032) (2018) **Proposed changes made following the Draft Minerals Local Plan consultation**
SGTW1: Page's Lane **(Part of the Severn Vale resource area)** • The candidate allocation was actively promoted by a prospective operator and / or landowner; • It was made up of three parcels of land (Areas A, B and C); • The parcels of land represented green field locations with no permitted mineral working; • Parcel B was subject to a planning application for sand & gravel working at the time it was promoted; • It covered 12ha with a potential yield of up to 0.35mt	**CANDIDATE ALLOCATION WAS REMOVED AND NOT TAKEN FORWARD INTO THE DRAFT MLP** • Confirmation of no landowner interest in supporting mineral working across Areal C; • Areas A and B presented notable deliverability challenges. Whilst minerals have been worked nearby in the past, latterly a number of proposals have been refused. (Between 2016 and 2018 Parcel A was subject to an application for mineral working that was refused. The decision was challenged at appeal but was upheld). • Amenity and incompatibility with neighbouring and nearby land uses featured highly as a matter for concern. • No counter evidence was been presented to suggest potential site constraints can be satisfactorily mitigated or avoided; • Any new proposal brought forward would need to (at least) satisfy the requirements of policy MA02	n/a
SGTW2: Redpools Farm **(Part of the Severn Vale resource area)** • The candidate allocation was actively promoted by a prospective operator and / or landowner; • It was made up of four parcels of land (Areas A, B, C and D) • It represented a green field location with no permitted mineral working; • It covered 32ha with a potential yield of between 0.45 and 0.50mt	**Renamed – Allocation 07: Preferred Area at Redpools Farm** • All parcels of land were combined; • No other changes proposed.	**CANDIDATE ALLOCATION WAS REMOVED AND NOT TAKEN FORWARD INTO THE PUBLICATION PLAN** • Sufficient doubt that Allocation 07 in its present form is deliverable and able to make a meaningful contribution to future sand and gravel supplies to justify its continued inclusion as an allocation within the Publication Plan. • This is due to the loss of potentially workable reserves from safeguarding stand-off areas for underground gas pipeline infrastructure and likely requirements to achieve effective mitigation (such as stand-offs and bunds) to prevent unacceptable adverse impacts upon neighbouring land-uses. • Whilst there has been some interest in the potential of more significant sand and gravel working nearby (cross-border land adjacent to Allocation 07 known as Bow Farm), this has yet to materialise with any reasonable degree of certainty and presently no candidate allocation has been taken forward within the emerging Worcestershire Minerals Local Plan. • Nevertheless, the removal of the candidate allocation does not in any way diminish its aggregate resource potential. It should be noted that these resources will be safeguarded to maintain their availability to be looked at again the future and to prevent their unnecessary sterilisation by other development types through the emerging plan's safeguarding policy framework. Furthermore, whilst possible

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		significant and challenging constraints are likely to exist with any future proposed working of the allocation there is no irrefutable evidence to indicate it would not be possible to prepare a sufficiently robust scheme of mitigation or that any future proposal(s) could not satisfactorily avoid features or assets that are protection. If a proposal was to arise within the time horizon of the plan it would also need to be robustly justified under policy MA02, including a clear and indisputable demonstration of need at that time.