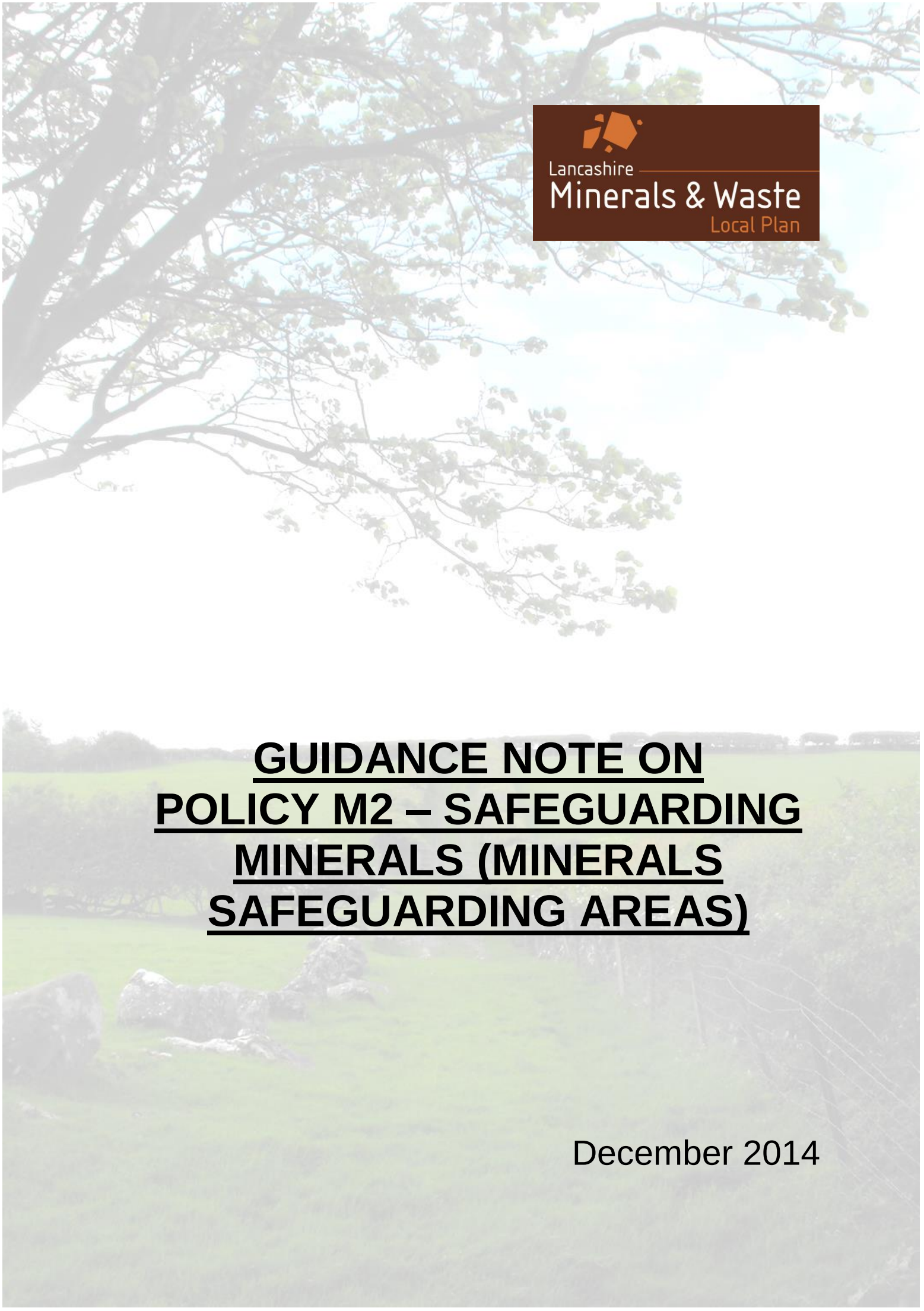

GUIDANCE NOTE ON POLICY M2 – SAFEGUARDING MINERALS (MINERALS SAFEGUARDING AREAS)

December 2014

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1. Introduction

A key aspect of sustainable development is the conservation and safeguarding of non-renewable resources for future generations. As such it is important that non-minerals development does not needlessly prevent the future extraction of mineral resources.

Lancashire contains a number of minerals of economic importance including limestone, sand and gravel, gritstone (sandstone), shallow coal, and brickshales. These mineral resources have been designated and protected as Mineral Safeguarding Areas (MSA) on the Policies Map through Policy M2 of the Joint Lancashire Minerals and Waste Site Allocation and Development Management Policies Local Plan (part of the Development Plan).

The local planning authority (LPA)[1] will be the decision making authority for the majority of planning applications within Lancashire.

This guidance has been prepared to assist the LPA, and applicants, when considering proposals for non-mineral related developments within these MSAs.

More information on the extent of the MSAs can be found on the Lancashire MARIO interactive mapping website - http://mario.lancashire.gov.uk/agsmario/ or the relevant LPAs policies map.

[1] In two tier areas it is likely that the determining authority will be the district, city or borough council, though some schemes may be 'county matter' and so determined by Lancashire County Council (in unitary areas this distinction is not relevant), or nationally significant infrastructure projects and so determined by the Secretary of State.

2. Importance in Decision Making

The presence of a MSA does not necessarily preclude other forms of development being permitted nor confer any presumption that the mineral will be worked[2]. It is a policy tool to alert the applicant that minerals may be sterilised by the proposed development and that this should be taken into account by the planning process. Any application that comes forwards in a MSA must be considered against Policy M2.

Further to this the NPPF requires that *"local planning authorities should not normally permit other development proposals in mineral safeguarding areas where they might constrain potential future use for these purposes".* (Paragraph 144, page 34)

Policy M2 provides criteria against which to judge the appropriateness of a development, or a site allocation in a draft local plan, within a MSA.

Applicants can assist the LPA in determining whether their application is in accordance with Policy M2 through the submission of appropriate information. This should be in the form of a mineral resource assessment[3], more details of which can be found in Appendix C. The level of detail should be appropriate to the scale and nature of the proposed development.

Pre-application discussions and engagement is useful as it will enable an applicant to be better informed of what is required at submission, allowing more time for evidence to be collected and considered before the scheme is finalised and submitted to the LPA. This serves to reduce the risk of a delayed, prolonged determination of an application. Awareness of the MSA and Policy M2, and the requirement to submit information, is a key part of this.

2.1 Non-minerals development

Policy M2 seeks to prevent the needless sterilisation of mineral resources by non-minerals development. Clearly there are many forms of development that, by their nature, will not lead to the sterilisation of mineral resources. Proposals which are excluded from these considerations are:

- Development already permitted by the General Development Order
- Development where outline planning permission has already been granted
- Development within the curtilage of existing developments
- Temporary development, unless in close proximity[4] to an active quarry or permitted reserve of minerals.

[2] The MSA designation does not provide any support for a planning application for minerals extraction submitted within it.

[3] The requirement for a minerals resource assessment should be included in the **validation checklist** of information requirements. This approach would avoid unnecessary delays when the planning application is being considered.

[4] 250m of sand and gravel/clay/coal or 400m of hard rock

3. General Principles

3.1 Prior extraction

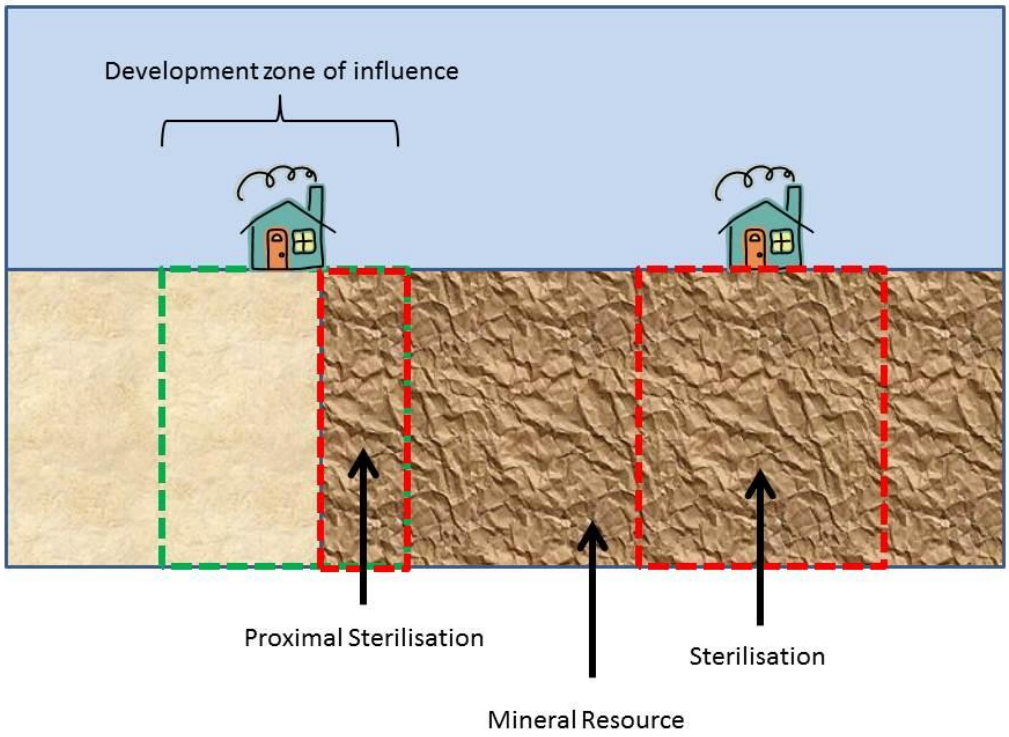
Prior extraction[5] may enable an otherwise unacceptable development to be found to be acceptable. Consideration will need to be given to whether prior extraction of the mineral resource is feasible or desirable in that location. Prior extraction of the mineral resource need not necessarily result in delay to development if it were considered early enough in the developer's decision making process.

More details on prior extraction are provided in Appendix D.

3.2 Proximal sterilisation

Even very small developments require the greatest scrutiny as they have the potential to sterilise large amounts of mineral, both through their immediate land take and their presence influencing the potential workability of the surrounding land (as illustrated below); this can also include indirectly sterilising the mineral through closing off the access to a mineral resource, in circumstances where access to the resource is limited.

Further to this, the MSAs in and around existing quarries will need to be enforced stringently, so as to prevent the sterilisation of reserves or resources by proximal development; the relevant quarry operator should be consulted in these circumstances.



[5] Prior extraction is the extraction of some or all of the mineral resource prior to the development taking place.

4. Decision Making

Policy M2 can be summarised as below:

- Does the non-minerals development prevent the future extraction of a mineral resource? (see 4.1 below)

- If it does prevent the future extraction of a mineral resource:
  - can the full extent of the mineral resource be extracted satisfactorily prior to the non-mineral development? (see 4.2 below)
  - is there an overarching need for the non-minerals development that outweighs the need to avoid sterilisation? (see 4.3 below)

4.1 Does the non-minerals development prevent the future extraction of a mineral resource?

4.1.1 Is there likely to be a commercial interest in extracting the mineral resource, now or in the future?

The applicant will need to consider the quality of the resource when determining if there is likely to be a commercial interest in it. This should concentrate on whether the mineral resource has the specification required to meet its intended use; does it fulfil a BSI standard or equivalent (with or without processing). The need to process the mineral to produce a saleable product will affect the economics of extraction, both through the costs of waste disposal and the provision of extra plant.

The depth of overburden is a key consideration when assessing the commercial interest of the mineral. As a rule of thumb it is uneconomic to extract material with a greater than 1:1 overburden to mineral ratio (though this is influenced by the value of the mineral, coal can be viable with ratios of 40:1 on a large enough site): likewise the presence of interburden.

The proximity to market, and the associated transport costs, will influence these economics.

In addition, the applicant will need to consider if the mineral resource is present in a realistic quantity when determining if there is likely to be a commercial interest in it.

Small ribbons or isolated occurrences of mineral resource are unlikely to be economic to work and so sterilisation may not be an issue. Likewise, if the surrounding area is developed to such an extent that it makes the potential extraction of minerals uneconomic it can be considered that the mineral resource is already sterilised; for example if the area contains scattered houses, or fields broken up by roads, that reduce the amount of free land potentially developable for a quarry. The quality of mineral and its intended end use will influence the quantities needed to make the mineral of a commercial interest; 10,000 to 100,000 tonnes of mineral resource may be viable (though possibly as low as

1,000 tonnes may be viable for some minerals), over 100,000 tonnes is likely to be viable and so represent a mineral resource with a likely commercial interest.

If it is unlikely there will be a commercial interest in the mineral resource the applicant is none the less encouraged to make use of any mineral that may be available through prior extraction in the design and construction of the proposed development. However, consideration of proximal sterilisation may still be necessary if the proposed development is close to potentially workable mineral resources.

4.1.2 What is the degree of permanence of the development?

If the development is temporary, sterilisation or prior extraction is unlikely to be a consideration; consideration will still need to be given to their impact on the operation of any permitted quarries or site allocations in the vicinity, or how they may be impacted on by the quarry.

The degree of engineering work associated with the proposed development is likely to be a key consideration when determining if the proposed development is temporary; the nature of land ownership associated with the proposed development is also likely to be significant in informing this consideration of 'permanence'.

Consideration must also be given to the likely demand for the mineral resource during the anticipated lifespan of the proposed development – the upper limits of temporary may be as short as a couple of years in certain circumstances adjacent to an active quarry or on an identified mineral reserve.

4.1.3 Is the development in close proximity to a quarry?

Proximal sterilisation of potentially workable reserves should be considered, as well as sterilisation of currently permitted reserves brought about by possible changes to working practices necessary in order to avoid impacts on the proposed development. Consideration must also be given to the potential impacts of the quarry, or potential future quarry working, on the proposed development. In these circumstances it would be appropriate for the LPA or applicant to contact the quarry operator to inform them of the application and gain their views on the proposed development and proximal sterilisation; their knowledge of the presence of any mineral resource could also inform the preparation of a minerals resource assessment.

4.1.4 Is the removal and storage of the mineral practical?

Any minerals extracted from the site that are not used on site will need to be removed off site, either direct to market, or to another site for storage prior to sale or for processing to a saleable product. Overburden may also need to be moved off site temporarily. This may generate significantly more vehicle movements than if the site were to be developed with the minerals in situ. Furthermore the storage of material onsite will need to be considered, and its potential effects on the design and phasing of the proposed development, particularly on a small site. Potential markets for the minerals extracted should be identified in the minerals resource assessment.

4.2 Can the full extent of the mineral be extracted satisfactorily prior to the non-minerals development?

4.2.1 Is the mineral present sand and gravel/coal or hard rock?

Prior extraction of hard rock is only likely to be practicable if it is a large development proposal where the resultant void could be combined with opportunities for SUDs measures, or the site as a whole could be accommodated within the void in a way sympathetic to the surrounding landscape and land uses. Most sites will likely only yield rock as a by-product of the necessary ground works associated with the development, which could nevertheless provide some building stone for boundary walls etc, but is unlikely to yield a meaningful quantity, and would be ancillary to the operations permitted through the construction works rather than extra works distinct from them. The use of waste stone in boundary walls could be conditioned, but prior extraction is unlikely to be a consideration.

Prior extraction of coal or sand and gravel is in comparison much more practicable.

4.2.2 Is prior extraction practicable?

Prior extraction is unlikely to be practicable for small developments, and significant levels are unlikely on any development proposal less than 5ha. Sterilisation, both on the development site and proximal to the development, is likely to be the main consideration for small sites, which have just as much potential to sterilise a mineral resource as a large development.

When considering prior extraction the depth of overburden must be considered in the context of the size of the site. The depth of overburden is a key consideration when assessing the commercial interest of the mineral. As a rule of thumb it is uneconomic to extract material with a greater than 1:1 overburden to mineral ratio.

Excavator booms will typically be able to create a void 5-6m deep; going deeper will require steps in the void, which will not be practicable on smaller sites given the batter necessary to ensure land stability (the batter slope will also be influenced by the material excavated). Further to this small sites may not be able to practicably store the overburden without constraining site operations.

4.2.3 Will it affect the ability of the land to accept the built development?

Prior extraction is likely to significantly affect the nature of the site, by potentially changing the ground conditions (either through exposing a bedrock or producing made land through the importation of inert fill to fill the void created by the removal of the mineral), altering the site levels, and introducing slopes. All of these will affect the potential for the land to accept built development. The potential to exploit these effects to improve the scheme through, for example, the reduction in the visibility of the proposed development by locating it in the void, or the creation of SUDs attenuation measures in the void, should also be considered.

4.2.4 Is prior extraction environmentally acceptable?

The proximity of sensitive land uses, such as protected habitats or species, historical or archaeological sites, and homes etc, and the potential for impacts and mitigation of any impacts should be considered when considering the feasibility of prior extraction before the proposed development.

4.3 Is there an overarching need for the non-mineral development that outweighs the need to avoid sterilisation?

Ultimately it is for the LPA to determine the level of need for the proposed non-minerals development. Primary consideration will need to be given to the policies of the development plan, read as a whole, then to other material considerations. Significant considerations will be the development's contribution to the delivery of the core strategy vision or strategic land allocations, and the level of economic benefit associated with the non-minerals development, particularly relative to the level of need for that benefit in that location. This will need to be balanced against the importance of the mineral resource in terms of its quantity and quality and, if prior extraction is being considered, its effect on the timescale for implementing the non-minerals development. It is not enough simply to say that the short term market demand for housing outweighs the long term demand for minerals.

Appendix A: Policy M2 – "Safeguarding Minerals"

"Within the Plan area, Mineral Safeguarding Areas have been delineated on the Policies Map around all deposits of:

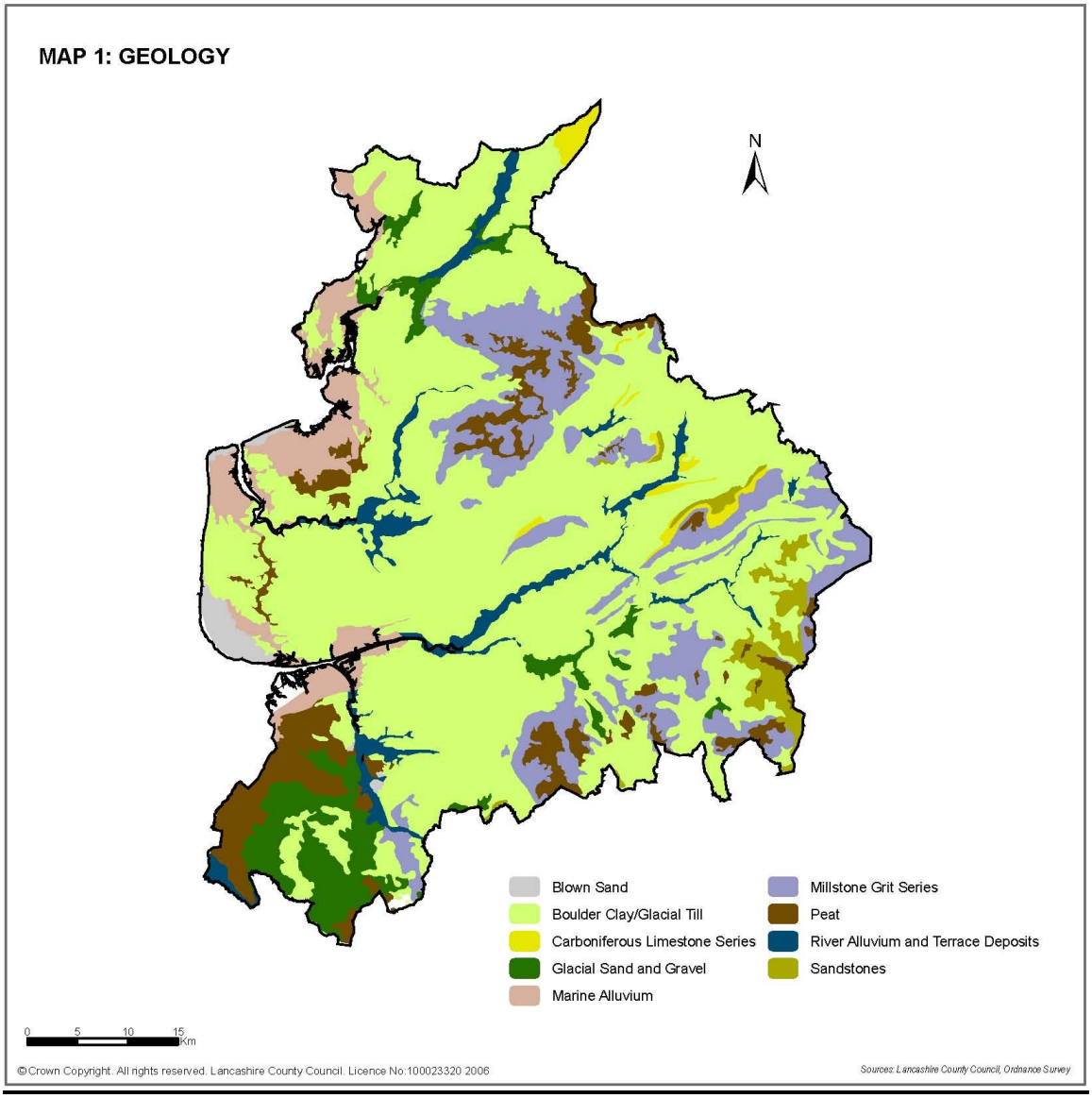
- *Limestone*
- *Sand and Gravel*
- *Gritstone (Sandstone)*
- *Shallow Coal*
- *Brickshales*
- *Salt*

Within these mineral safeguarding areas identified, planning permission will not be supported for any form of development that is incompatible by reason of scale, proximity and permanence with working the minerals, unless the applicant can demonstrate to the satisfaction of the Minerals Planning Authority that:

- *The mineral concerned is no longer of any value or has been fully extracted.*
- *The full extent of the mineral can be extracted satisfactorily prior to the incompatible development taking place.*
- *The incompatible development is of a temporary nature and can be completed and the site returned to its original condition prior to the minerals being worked.*
- *There is an overarching need for the incompatible development that outweighs the need to avoid the sterilisation of the mineral resource.*
- *That prior extraction of minerals is not feasible due to the depth of the deposit.*
- *Extraction would lead to land stability problems.*

Appendix B: The Geology of Lancashire

It is possible to split Lancashire into two distinct east / west areas in terms of geology. Generally, the eastern part of the County is made up of carboniferous limestone deposits and millstone grit – gritstone / sandstone (i.e. the hard rock areas), predominantly in the Forest of Bowland AONB and the West Pennine Moors. However, deposits of millstone grit (gritstone) extend westwards into West Lancashire. The western part of the County – the river valleys and the Lancashire Plain – comprises of glacial (permian-triassic) deposits and river valley deposits of sand and gravel, together with marine alluvium along the coast. Boulder clay / glacial till cover the majority of the County of Lancashire. Peat deposits occur across the upland areas of Lancashire, the river valleys and the coastal plain.



Appendix C: Minerals Resource Assessment

Sufficient information on mineral resources is necessary for local authorities to determine planning applications for non-mineral development within an MSA. The level of detail provided should be appropriate to the scale and nature of the proposed development. An assessment needs to be carried out by a suitably qualified professional. The minerals resource assessment should specify whether there are minerals present and, if so, whether it is feasible to extract the mineral(s).

1. Presentation of geological data. This could take the form of:
    a. Desk top study of existing surface and solid geological and mineral resource information; or
    b. Borehole investigations
2. Assessment of the mineral resource potential of any mineral present considering its ability to meet the required specification for its intended use, before or after processing (the relevant BSI or equivalent), and the quantity present.
3. Assessment of the mineral recovery potential:
    a. Acceptability
        i. Site surroundings and neighbours, and their sensitivity to impacts associated with working minerals)
        ii. Depth of overburden
        iii. Size of site, and the ability of the site to accommodate batters and storage of overburden, mineral processing facilities
        iv. Benefits such as SUDs, local vernacular, reduced visual impact
    b. Viability
        i. Whether the prior extraction will prejudice the development of the land by:
            (i) Delaying the implementation of the proposed development beyond an acceptable timescale
            (ii) Affecting the ability of the land to receive the proposed development
            (iii) Significantly affecting the developments viability
        ii. Consideration should be given to the location of potential markets for the mineral, including on site
        iii. Does the developer hold the mineral rights

4. Potential for proximal sterilisation
    a. Extent of MSA around development and its development potential
    b. Impact of proposed development on current or potential future working of any nearby quarry and the impact of the quarry on the proposed development

BGS can be contacted for information on mineral resource datasets at enquiries@bgs.ac.uk

The Coal Authority can be contacted for information on coal datasets at coalresources@coal.gov.uk

Appendix D: Prior Extraction

- Minerals which are very close to the surface usually present the least difficulties with extraction and could be extracted using a mobile excavator.
- Deeper minerals may require a specialist earth moving contractor and may take longer to excavate. These are also more likely to require the restoration/backfilling of the void created by the excavation.
- The extraction of hard rock will require specialist equipment, as a general rule will be associated with more environmental impacts, and as such will not normally be a candidate for prior extraction, especially in urban locations.

Prior extraction will be carried out by excavators and dumper trucks; the size of these will be dictated by the size of the site. They will usually be the same as the machinery used in the site preparation works associated with the proposed development (site levelling, digging foundations, etc). Where prior extraction involves the stockpiling of the minerals on site, or an off-site location for stockpiling such as a permitted quarry or a dedicated site, it is likely to require further planning permission. This choice will be informed by the amount of mineral present, the size of the site and the phasing of the delivery of the proposed development.

In considering prior extraction the LPA will need to consider both the impacts and the benefits of prior extraction. The potential practical implications of prior extraction are matters of fact and degree involving the scale and nature of those possible impacts, some of these are set out below. Details of these may need to be submitted as part of the mineral resource assessment, or a separate planning application for prior extraction[6].

Flood Risk

When considering the prior extraction of a mineral resource, its potential to increase the sites vulnerability to flooding is a key consideration. Reducing the ground level may make the site more vulnerable to flooding, and affect drainage from the site. On sites less vulnerable to flooding, prior extraction can assist in ensuring the development does not increase flood risk elsewhere, as per the NPPF. Prior extraction could produce voids suitable for use in attenuating surface water in tanks or open features as part of a sustainable urban drainage system (SUDs); it could also create a much larger void for use as a landscape or recreational asset.

Dust emissions

Prior extraction has the potential to produce dust. However, the emission of dust will be short-lived at prior extraction sites, due to the limited life of the working. It may be appropriate for the mineral resource assessment to include information on:

[6] A separate planning application **may** be required for the prior extraction of the mineral(s); this will need to be submitted for determination by the MPA, in two tier areas this will be Lancashire County Council.

- baseline conditions of the existing dust climate around the site of the proposed operations and anticipate the dust emissions generated during the non-mineral development following prior extraction;
- identify site activities and parameters that could lead to dust emission and propose mitigation where appropriate;
- proposals to monitor and report dust emissions to ensure compliance with appropriate environmental standards and to enable an effective response to complaints.

Noise generation

Prior extraction has the potential to generate noise. However, the noise will be short-lived at prior extraction sites, due to the limited life of the working. It may be appropriate for the mineral resource assessment to include information on:

- baseline conditions around the site, including the location of noise-sensitive properties;
- the main characteristics of the production process and proposals to minimise, mitigate or remove noise emissions at source;
- proposals to monitor noise emissions during prior extraction of minerals, to ensure compliance with appropriate environmental standards.

Traffic movements

Prior extraction has the potential to increase HGV movements to and from the development site, though there may be opportunities for backhauling using empty delivery wagons. It may be appropriate for the mineral resource assessment to include information on:

- The vehicle movements associated with the removal of minerals from the site;
- The opportunities for using the mineral resource on site and the number of vehicle movements reduced as a result.

Land stability in surface mine workings and tips

Prior extraction has the potential to affect the stability of neighbouring land. It may be appropriate for the mineral resource assessment to include information on:

- the stability characteristics of any slopes required during excavation or once restored;
- any stability hazards created and the location of vulnerable features (such as buildings or rights of way).

Appendix E: Examples of Prior Extraction

There are a number of examples across the Country of the prior extraction of minerals before surface development takes place. Benefits demonstrated include the creation of landscaped areas with flood alleviation ponds, enhancing the viability of the development through the sale of the minerals, and the reduced visual impact of the development by locating it in the void created by the worked minerals.

BEDFORDSHIRE: Sandhills Estate at Leighton Buzzard, where silica sand has been extracted on a phased basis and the site has been developed under a separate planning permission for housing. The worked out areas have been contoured at Sandhills Estate to mirror the contours of the housing estate. The high quality of the silica sand and the value of the mineral resource have ensured that the developments have retained their economic viability and have not, and will not be undermined by the cost of prior extraction of the mineral deposit(s).

BERKSHIRE: Much of the sand and gravel required for the A34 Newbury by-pass was sourced from the line of the road. This meant that a number of sites permitted to provide aggregate for road construction were either not dug at all or were only partly dug.

DEVON: Bishop's Court Quarry is a sand quarry on the outskirts of Exeter, now operated by Aggregate Industries but having been worked since the 1930s. Sand extracted in advance of nearby development was stockpiled at the quarry for subsequent sale, with the first being in 1973 when a new dual carriageway was constructed in a cutting on the south east boundary of the quarry. The planning application for the development was submitted jointly to Devon County Council (as MPA) and Exeter City Council (as LPA) and included the extraction of the mineral as part of the development.

ESSEX: Prior extraction of minerals was granted planning permission in 2012, in advance of a housing development at Bullslodge Quarry, which is a site north-east of Chelmsford. Planning permission had been granted for sand and gravel, but due to phasing part of the site was not due to be worked for a number of years. The same piece of land was proposed for mixed-use development in the District Plan, but only formed a section of a much bigger scheme. The housing developer has come forward with an application for the early working of the mineral as part of the mixed-use development application.

LEEDS: Coal has been removed prior to development at a number of sites across Leeds.

- The runway extension at Leeds Bradford Airport involved excavations to prepare foundations for a new taxi-way.
- At St Bernard's Mill, in Gildersome, Leeds, 4,000 tonnes of coal were removed at the same time (incidentally) as the foundations for the construction of a large Materials Recycling Facility (MRF) building, in 2011.

- The Merchants Quay Apartments development on East Street, in Central Leeds, where the basement area was cut into a two metre coal seam and it is reported that 15,000 tonnes of coal were removed.

WAKEFIELD: Grange Farm in Wakefield (M1 Junction 39) is an example of gravel extraction and then restoration to business park uses.

WARWICKSHIRE: An industrial development was proposed on a site designated as a Preferred Area in the Local Plan. The application for the industrial development was refused and the decision was appealed. The appellant's case was dismissed and afterwards they came back with a fresh proposal which took account of the sand and gravel and enabled prior extraction over part of the site which is understood involved stripping a layer of the mineral across the site. The area that was extracted was made into a landscaped area and a small lake.

WEST SUSSEX: The construction of the BMW/Rolls Royce factory at Westhampnett on the Goodwood Estate in 2001, which was to be built within a Preferred Area for gravel. The identification of the area for mineral working came before the BMW proposal, which then proposed to build the factory in the depression formed by mineral extraction to ensure the factory was invisible from Goodwood House.

Appendix F: Glossary

BSI standard: an agreed way of doing something, written down as a set of precise criteria so they can be used as rules, guidelines or definitions.

Core Strategy: Document(s) containing land use planning policies for the area. Updated legislation now refers to Local Plans.

Degree of Permanence: The anticipated lifespan of the development, or the change of use established by the development. Temporary developments are unlikely to prevent the extraction of a mineral resource for future generations.

Development Plan: The development plan for an area is made up of the adopted Local Plan (in two tier areas this will include both the Minerals and Waste Plan and the Local Planning Authorities Local Plan), and any adopted Neighbourhood Plan.

Interburden: Rock lying inbetween areas of mineral resource. This will influence the value of the mineral resource as it will affect the time, efficiency and cost associated with working and working the mineral resource.

Local Plan: Document(s) containing land use planning policies for the area.

Local Planning Authority: local authority or council that is empowered by law to exercise statutory town planning functions for a particular area of the United Kingdom.

Material Considerations: a process in planning law in which the decision maker when assessing an application for development must consider matters relevant to that application in planning terms in deciding the outcome of an application.

Mineral Resource Assessment: An assessment containing sufficient information on the mineral resource to allow the LPA to determine a planning application within a MSA.

Mineral Safeguarding Areas: areas of known mineral resources that are of sufficient economic or conservation value to warrant protection for generations to come.

Non-Minerals Development: Development that is not associated with the winning and working of minerals.

Non-Renewable Resources: a resource that does not renew itself at a sufficient rate for sustainable economic extraction.

NPPF: National Planning Policy Framework. The framework acts as guidance for local planning authorities and decision-takers, both in drawing up plans and making decisions about planning applications.

Overburden: Rock or soil overlying a mineral resource. The depth of overburden will influence the value of the underlying mineral resource as it will affect the time, efficiency and cost associated with working and working the mineral resource.

Prior Extraction: the extraction of minerals prior to development taking place.

Proximal Sterilisation: the sterilisation of a mineral resource by the influence of a development adjacent to the resource. The potential for impacts on the development, through noise or dust, makes it impractical to work the mineral resource adjacent to the development.

Safeguarding: the process of ensuring that non-minerals development does not needlessly prevent the future extraction of mineral resources, of local and national importance.

Sterilisation of Mineral Resources: the term used when development or land-use changes take place which permanently prevent the extraction of mineral resources from the ground.

Strategic Land Allocations: are site, location and area specific policies. They identify areas for development as well as areas which should be protected from development and direct where homes, employment land, services and future investment will go.

SUDs: Sustainable Urban Drainage Systems are a sequence of water management practices and facilities designed to drain surface water in a manner that will provide a more sustainable approach than the conventional practice of routing run-off through a pipe to a watercourse. These can include attenuation measures where water is delayed from entering the public drains until demand on the wider network is reduced for example during periods of heavy rain.

Sustainable Development: development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

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