

## Safeguarding Mineral Resources and mineral reserves and Avoiding their Sterilisation

### Minerals of National and Local Importance in Essex

~~3.113~~ ~~3.120~~ Minerals are a finite natural resource and essential for the delivery of the infrastructure, buildings, energy and goods that the country needs. which ~~They~~ must be used prudently and conserved so that there are adequate resources for future generations. ~~Known locations of mineral resources of national and local importance need to be protected and safeguarded to ensure the long-term security of minerals supply. and as~~ As such there is a need to ensure that the best practicable use is made of minerals and that they are factored into decisions about future land-use when proposals for other non-mineral development arise. Therefore, known locations of mineral resources of national and local importance will be protected and safeguarded to ensure minerals are not sterilised by non-mineral development where this should be avoided.

~~3.121~~ The British Geological Survey (BGS) Mineral Resource Maps provide the best available geological and resource-based information on the broad extent of minerals resources in Essex. ~~Where BGS survey work is not available, the mineral resource has been inferred from other evidence held by the County Council. This work has identified sand and gravel, silica sand, chalk, brickearth and brick clay as being minerals requiring safeguarding in Essex.~~

### Sterilisation of Minerals

~~3.114~~ ~~3.122~~ 'Sterilisation' is the term used when development or land-use changes take place which permanently prevent the extraction of mineral resources from the ground. By protecting mineral resources from unnecessary sterilisation, the Mineral Planning Authority can ensure that:

- ~~Mineral resources remain available to meet the needs of future generations,~~ Best use can be made of minerals to secure their long-term conservation for future generations.
- ~~Local flexibility is retained to identify new extraction sites in areas which have the least impact on people, communities and the environment,~~
- ~~There is the opportunity to consider the merits of prior extraction of the minerals~~ Mineral resources of local and national importance are not sterilised by non-mineral development where prior extraction where this is environmentally and socially acceptable, and practical and environmentally feasible to do so.
- The need for additional primary provision, through the allocation of new mineral sites, is decreased through a reduction in the amount of mineral effectively lost under permanent built development.

## Mineral Safeguarding Areas (MSAs)

3.115 ~~3.123~~ 'Safeguarding' is the process used in the planning system to ensure the protection of mineral resources from the risk of sterilisation.

3.116 ~~3.124~~ The NPPF requires Minerals Planning Authorities to define MSAs *Mineral Safeguarding Areas (MSAs)* and adopt appropriate policies within their local plans to ensure that locations of specific mineral resources of local and national importance are not sterilised by non-mineral development where this should be avoided. This is so that ~~known locations of specific minerals are not needlessly sterilised by other forms of development whilst acknowledging that this does not create a presumption that the resources defined will ever be worked.~~ The purpose of MSAs is to ensure that mineral resources are adequately and effectively considered in land-use planning decisions such that sterilisation of resources that are of national and local importance, and environmentally feasible and practical to extract, does not occur. As such, the MPA will object to development that would sterilise resources contrary to these principles.

3.117 Where issues of environmental feasibility are raised, since built development would follow any prior extraction, mitigation measures that make the primary development acceptable may also mitigate the impact of prior extraction. Supporting evidence for any application will need to be clear what environmental impact, that demonstrably couldn't be mitigated, would occur from the mineral working alone. The primary mechanism through which this assessment will be made is through a Mineral Resource Assessment, as discussed below.

3.118 Consultation with the minerals industry has identified sand and gravel, silica sand, chalk, brickearth and brick clay as those minerals requiring safeguarding in Essex. The British Geological Survey (BGS) Mineral Resource Maps provide the best available geological and resource-based information on the broad extent of these mineral resources in Essex. Where BGS survey work was not available, the extent of the mineral resource was inferred from other evidence held by the County Council. The spatial extent of these minerals as deduced from the above information sources have been used to define the Mineral Safeguarding Areas associated with sand and gravel, chalk, brickearth and brick clay.

3.119 The BGS Mineral Assessment Reports have further assessed the sand and gravel geological units by using borehole information and categorised them as workable mineral deposits where they meet the following criteria:

- a) The deposit average is at least 1m in thickness
- b) The ratio of overburden to sand and gravel is no more than 3:1
- c) The proportion of fines (particles less than 1/16mm is less than 40%)
- d) The deposit lies within 25m of the surface

These reports were produced between the 1970's and early 1980's and, although old, the geology has remained unchanged and they are still widely used by aggregate industry geologists for land search purposes. The MPA therefore considers that sand and gravel deposits that fall within these criteria constitute potentially workable deposits and are therefore at least locally important.

**3.120** Land covered by an MSA designation is therefore considered to potentially hold a mineral of at least local importance by virtue of the land being designated as an MSA. However, such policies cannot create a presumption that the resources defined within MSAs will be worked. Nonetheless, the NPPF is clear that local planning authorities should not normally permit other development proposals in Mineral Safeguarding Areas if it might constrain potential future use for mineral working.

**3.121** Therefore, unless excluded by virtue of Table 8 in Appendix Two, non-mineral development proposals of any size which have the potential to sterilise mineral within a Mineral Safeguarding Area will be expected to justify why this principle should be set aside as part of supporting information. The relevant Local Planning Authority should also address this matter as part of its decision whether approval is granted or not.

**3.122** A Minerals Resource Assessment (MRA) will be required for applications for ‘included development’<sup>10</sup> made within an MSA and/or MCA, should the relevant threshold of Policy S8 be triggered by a proposed non-mineral development. The role of the MRA is to both confirm the quality of the resource to establish whether it is locally important by virtue of having a market use, as well as establish the quantity and spatial extent of mineral present and how that influences the practicality of its prior-extraction. MRAs are discussed in more detail below.

**3.123** ~~3.125~~ Following consultation with the mineral industry, ~~the Coal Authority,~~ English Heritage, British Geological Survey, neighbouring MPAs and other stakeholders, as part of the formation of the MLP, the following Mineral Safeguarding Areas and consultation thresholds have been established:

**Table 4. Definitions of Mineral Safeguarding Areas**

Mineral Type	Geographic Definition of MSA Extent	Consultation Threshold
Sand & Gravel (including silica sand)	All glacial sand and gravel resources, glaciofluvial sand and gravel resources and river terrace deposits as identified from BGS mapping and other supplementary sources of evidence.	All potential developments* <del>greater than five hectares.</del> <u>which would sterilise 5ha or more of land within the associated MSA</u>
Brickearth	The same boundary for the Minerals Consultation Area as identified in the Essex Minerals Local Plan (adopted Brickearth January 1997) has been used, with any areas already known to have been worked out <u>prior to 2014</u> omitted.	All potential developments* <u>which would sterilise land greater than one dwelling equivalent.</u>

<sup>10</sup> As set out in Appendix Two

Brick Clay	These deposits are very localised and have been identified from BGS mapping.	All potential developments* <u>which would sterilise land greater than one dwelling equivalent.</u>
Chalk	Only higher purity (upper chalk) is currently worked, and only one mineral resource area has been identified (predominantly in Uttlesford district).	All potential developments* <u>which would sterilise 3ha or more of land within the associated MSA greater than three hectares.</u>

\* Unless defined as Excluded in Appendix Two of this Plan.

**3.124** The area of land potentially sterilised by a non-mineral development is calculated as the area of land subject to the planning application, which is within an MSA, and land up to 100m from the application site, also within an MSA, expressed in hectares.

**3.125** With respect to the consultation threshold of 5ha set for applications made in MSAs related to sand and gravel, consultation with the minerals industry in 2007 indicated that a minimum of 3ha of a sand and gravel resource was needed for the mineral to be viable to extract. The MPA considers that setting the threshold at 5ha represents a proportionate response as it increases the potential that prior extraction would be practicable at any given site. It is also the case that the MPA does not wish to impose unrealistic requirements on developers to undertake detailed geological borehole and site investigation work to determine the quantity and quality of the underlying deposit at those sites which only just meet the criteria of being potentially viable to extract.

**3.126** In this Plan, the spatial location and broad extent of MSAs in Essex is shown on the Policies Map. District, borough, and city planning authorities will in turn include these MSAs on their own Policies Maps.

~~**3.127** If it proves necessary for development to take place within an MSA, then the presence of mineral resources and the potential for prior extraction of minerals should be considered. Where considered appropriate, prior extraction should be undertaken before development takes place.~~

**3.127** ~~**3.128**~~ Further to the thresholds expressed above, additional limits are placed on the consultation process as some types of development are of little significance to minerals planning. ~~Appendix 5~~ Appendix Two sets out the types of planning application or proposal within MSAs for which it is not appropriate to consult the County Council. It follows that consultation should take place in respect of all development proposals in MSAs which are not defined as being excluded by the Appendix.

## Mineral Consultation Areas

**3.128** ~~**3.129**~~ Minerals development The extraction of minerals may create impacts on their immediate surroundings and local communities through, for example, dust or noise emissions and vehicle movements. Development that is sensitive to such impacts and, therefore, potentially incompatible in close proximity to minerals development, can

include facilities such as hospitals and clinics, retirement homes, residential areas, schools, offices, horticultural production, food retailing and certain types of industry such as high-tech, painting and furnishing, and food processing. The Technical Guidance accompanying the NPPF provides examples of high, medium, and low sensitivity land-uses. The presence of such developments in close proximity to land that could potentially be worked for minerals in the future may act to preclude that extraction opportunity. As such there is also the potential that mineral can be sterilised not only when permanent non-mineral development is placed on top of mineral bearing land, but also in close proximity, if prior extraction is not undertaken beforehand.

~~3.129~~ ~~3.130~~ It is therefore necessary to safeguard existing mineral workings, Preferred and Reserve Sites land in proximity to the MSA to prevent the possibility of new incompatible neighbours being established and ultimately restricting their activities future mineral extraction opportunities. Incompatible/ sensitive development should not be located in such close proximity that it puts constraints or limits upon current or future uses for mineral production. Proposed development (even a single dwelling) on the edge of, or in proximity to, a mineral site or haul road land designated as an MSA can prevent part of that site from being worked or operated in the future and therefore compromise the MSA designation. Compromising the planned working of a mineral can sterilise the resource and prejudice the steady supply of aggregate production within the Plan Area.

~~3.131~~ The following are also defined as ‘safeguarded sites’ for the purposes of protecting mineral workings and existing mineral reserves:

- ~~• mineral extraction sites and their associated facilities with planning permission that are currently in active mineral use~~
- ~~• mineral extraction sites with unimplemented planning permission for minerals extraction (including ‘dormant’ sites with extant planning permission for mineral extraction that have remained unimplemented for some years)~~
- ~~• Preferred and Reserve Sites proposed in this Plan for future mineral extraction~~

~~3.130~~ ~~3.132~~ Planning Practice Guidance requires that MPAs define Mineral Consultation Areas (MCAs) based on MSAs to address this potential issue. apply to the safeguarded site itself and extend for a distance of 250 metres outwards from the site boundary of each of these safeguarded sites. MCAs ensure that, should mineral extraction have to take place within and up to the site boundary, that development proposed on adjacent land beyond the site boundary would not prevent or compromise the possibility of mineral resources being extracted in future from land within the site itself. The MPA has therefore designated land within 100m of the boundary of the MSA as an MCA. This reflects a typical minimum distance that the MPA would permit extraction activities taking place from the façade of existing sensitive development. However, that is not to say that extraction is not permissible less than 100m from the façade of a dwelling if impacts are demonstrably mitigatable. It is also noted that mineral could potentially be sterilised when sensitive development is located more than 100m from the boundary of an MSA. However, there is a requirement for the MPA to adopt a pragmatic approach when designating MCAs as the likelihood of land ownership issues making prior extraction unimplementable increase as the distance from the MSA to the proposed development



increases. It is considered that 100m represents an appropriate balance. The location of the MCAs for these safeguarded sites is shown on the Policies Map.

**3.131** Proposed site allocations within an MCA that have the potential to sterilise land within an MSA should trigger discussions with the MPA with regards to the potential sterilising effect of local plan policies and allocations on mineral resources, which should be a material consideration when allocating sites.

**3.132** Regarding applications for development, unless excluded by virtue of Appendix Two or assessed at the site allocation stage, development proposals of any size being made within an MCA which have the potential to sterilise land within an MSA will be expected to justify why the need for the development outweighs the principles of mineral safeguarding as part of supporting information, if prior extraction is not practical. The relevant Local Planning Authority should also address this matter as part of its decision if approval is granted.

**3.133** Where sites come forward in an MCA with the potential to sterilise land in an MSA, equal or greater to the relevant threshold in Policy S8, the potential for development to sterilise mineral resources, and potential mitigation measures to avoid sterilisation, should be fully assessed through an MRA supporting the application, unless the issue has been fully addressed at the site allocation stage. Where mineral sterilisation is not considered to be practical to avoid, this conclusion must be appropriately justified, quantified if ground investigation is possible, and include an overriding need for development at that location which outweighs mineral safeguarding considerations should prior extraction not be practical. Such evidence should be based on the information schedule for Mineral Resource Assessments as set out in Appendix Two, tailored as relevant to the application in hand. The MPA will take a pragmatic view with regards to the scope of expected works required to inform an MRA where all or part of the land subject to the MSA designation is in different ownership.

**3.134** ~~**3.133**~~ The Mineral Planning Authority should be consulted by Essex district/-borough/city councils about all development proposals within these MCAs that meet the thresholds in Policy S8 and are not otherwise excluded in by virtue of Appendix Two, as even minor development occurring within such MCAs may have the potential to significantly impact upon the future working of mineral resources. where relevant discussions have already been held at the site allocation stage between the MPA and LPA, reference to the outcome of those discussions may fulfil the requirement to consult.

### **Mineral Resource Assessments**

**3.135** In order to satisfy the provisions of Policy S8, non-mineral led applications:

- defined as ‘included development’ under MLP Appendix Two,
- made within Mineral Safeguarding Areas and/or Mineral Consultation Areas, and
- which meet the sterilisation thresholds set out in Policy S8 are required to include a Minerals Resource Assessment (MRA) as part of its evidence base to assess the

viability of the prior extraction of mineral ahead of the primary development such that mineral resources are not sterilised where this shouldn't occur.

**3.136** Where these tests are met, whether it be the preparation of a DPD, Masterplan or planning application, the need for an MRA is expected to form part of pre-application discussions between the relevant Local Planning Authority, the prospective developer and/or the MPA as relevant. The MPA requires an MRA to be undertaken as soon as practical, and at such a time that it can shape and inform the early stages of a Master Plan/planning application. The need for an MRA should be included in the Validation Checklist of each Local Planning Authority.

**3.137** The MPA has designed a generic schedule of information requirements that should be addressed as relevant through an MRA. The detail to be provided should be in proportion to the nature of the proposed application or allocation. It is recommended that advice is sought from the MPA with regards to the scope and requirement for an MRA as well as when planning a schedule of intrusive works. Please see Appendix Two for further details regarding the application of Policy S8 and requirements for MRAs, including the schedule of requirements for an MRA.

**3.138** As previously mentioned, the role of the MRA is to assess the viability of prior extraction. Mineral safeguarding is articulated in the NPPF as being a conservation measure and is therefore seen as a constraint like any other conservation measure. As such, the need to conserve finite mineral assets should be viewed in the same way as the conservation of finite biodiversity or historical assets, where it is the value that arises out of the development that finances the 'mitigation' of the impact on the finite asset potentially being sterilised. If the development was not being proposed then there would be no need to consider prior extraction, and therefore the practicability of prior extraction must be viewed in the context of the development as a whole, not as a standalone commercial mineral extraction activity, as otherwise the assessment is being carried out under a false premise. For example, to consider the costs of restoring a site following prior extraction such that it is capable of a residential after use as part of the assessment of the practicality of prior extraction, without factoring in the profit realised by the residential development as a whole, is a false equation.

**3.139** Further, prior extraction of the mineral cannot be ruled out on viability grounds because it does not in itself turn a profit. The test required by national policy of whether prior extraction should take place is not linked to a financial profitability test in either the NPPF or PPG. Whilst it is recognised that cost clearly has viability impacts, such costs would have to have a significant viability impact on the primary development itself for this to be accepted as a reason that it is not 'practical' to prior extract mineral, if this was the sole reason given for prior extraction to not be practical. Conservation measures, in of themselves, are not typically profit generating activities and as such the absence of profit directly related to a prior extraction activity is not in of itself an acceptable reason to conclude that it is unviable.

### **The Benefits of Prior Extraction**

**3.140** Although primarily a conservation measure, the prior extraction of mineral reserves not only prevents the unnecessary sterilisation of minerals, it can also be used as an opportunity in major developments to create:

- topographies, environments and landscapes that help create hugely desirable places to live,
- opportunities for biodiversity net-gain and grow natural capital,
- Sustainable Drainage Schemes (SuDS) and increase flood resilience,
- mitigation measures against climate change, and
- positive contributions to the health and wellbeing of communities through the provision of open space and recreational resources.

**3.141** Such benefits can increase the value and selling potential of the development in question. Prior mineral extraction should be seen as an opportunity to design and shape landforms, particularly to support the masterplanning of significant developments. It is a temporary use of land and gives the chance to create land topographies transforming how the land is developed and used post extraction, through imaginative land reclamation and landscape enhancement.

**3.142** The value of the mineral extracted can potentially help finance the development costs of a site, but the timing of extraction is critical to ensuring that this finite resource can be effectively utilised by aligning it with the timing of the built development proposals in and around the site. The thoughtful restoration of a site can also reduce recreational pressure on nearby environmentally sensitive and protected areas by providing new recreational opportunities. The potential opportunities vary from development to development, with phased developments and those with long lead in times offering particular opportunities.

**3.143** The after-uses of mineral extraction can provide numerous benefits, consistent with Garden City or general planning concepts, and which therefore contribute to an attractive sense place, including:

- Formal and informal recreational land,
- Lakes rivers, ponds and wetlands,
- Forestry, woodlands, hedgerows,
- Habitat for flora and fauna,
- Public open space and rights of way.

**3.144** All of these can enhance the value of the development by making it a more attractive place to live and result in positive legacy benefits for the relevant developer(s). Such benefits are consistent with green and blue infrastructure principles and mandatory biodiversity net gain requirements. This allows developments to be set within a



multifunctional natural environment and provide space for nature, including its recovery, and therefore contributes to future communities being resilient to climate change and capable of promoting healthy lifestyles.

3.145 Prior extraction can therefore contribute to the realisation of positive economic, social and environmental outcomes as well being a measure to avoid the sterilisation of a finite natural resource.

### **Consultation between district, borough, and city planning authorities and the Minerals Planning Authority**

~~3.146~~ ~~3.134~~ Planning law requires that applications for planning permission must be determined in accordance with the Development Plan unless material considerations indicate otherwise.

~~3.147~~ ~~3.135~~ Local government in Essex operates within a two-tier structure and it is important that there is policy consistency between the tiers. MSAs and MCAs provide a means to ensure that appropriate policy dialogue takes place between Essex district/-borough/-city councils and the Minerals Planning Authority when local planning decisions are made.

~~3.136~~ Essex borough/ district/ city councils are responsible for the spatial planning of most land-uses within their areas. In doing so, they should not include policies and proposals in their own Local Plans which would require development in MSAs, unless there has been effective prior consultation with the Mineral Planning Authority.

~~3.137~~ When consulted on development proposals within MSAs or MCAs, the Mineral Planning Authority will be able to provide the Local Planning Authority with its views regarding whether it is considered that a proposed development would cause unacceptable sterilisation of a proven mineral resource within a MSA, or would prevent or prejudice the operation of a safeguarded mineral site. In some circumstances, a strategic objection may be raised to the proposed development. This process would be done on a case by case basis with all proposals being considered on their own individual merits.

~~3.138~~ In such instances, where the sterilisation of a mineral resource is at stake, it would be necessary for the development proposal to include a mineral resource assessment to enable the economic importance of the resource to be evaluated.

~~3.139~~ Each decision would take into account factors such as the mineral importance of the MSA resource, the particular use of a safeguarded mineral site, the nature of the proposed development, and the compatibility or degree of conflict. Any mitigation which could address any adverse impacts would also be relevant.

~~3.140~~ Where a proposal is made for development within a MSA or MCA identified in this Plan, then the district/ borough/ city council as the local planning authority must formally consult the County Council for its views before making a planning decision about the

proposal, and must subsequently take these views into account.

~~3.141 As previously stated, for clarity and consistency, Essex district/ borough/ city councils should identify any safeguarded sites on their own Policies Map for their relevant administrative area.~~

~~3.148 Further details with regards to the practical application of the safeguarding policy can be found in Appendix Two. This includes consultation mechanisms and determination processes for applications containing an element of prior extraction.~~

## **Policy S8 - Safeguarding Mineral Resources and mineral reserves**

By applying Within Mineral Safeguarding Areas (MSAs) and/or Mineral Consultation Areas (MCAs), as defined on the Policies Map, the Mineral Planning Authority will safeguard mineral resources of national and local importance will be safeguarded from surface development that would sterilise a significant economic resource or prejudice the effective working of a permitted mineral reserve, Preferred or Reserve Site allocation within the Minerals Local Plan these resources. The Minerals Planning Authority shall be consulted, and its views taken into account, on proposed developments within MSAs and MCAs except for the excluded development identified in Appendix 5.

Mineral with the potential to be sterilised by non-mineral surface development equates to that designated as an MSA which covers the area of the application site and 100m beyond.

The Mineral Planning Authority will object to proposals that unnecessarily sterilise a nationally or locally important mineral resource when it would be practical and environmentally feasible to extract it. Any assessment of viability is to be made within the context of the development as a whole.

### **Mineral Safeguarding Areas**

Mineral Safeguarding Areas are designated for mineral deposits of sand and gravel, silica sand, chalk, brickearth and brick clay considered to be of national and local importance, as defined on the Policies Map.

Unless the development and/or allocation is excluded under Appendix Two, The the Mineral Planning Authority shall be consulted, and its views taken into account, on:

- a) all planning applications for development on a site located within an MSA and/or MCA that is would have the potential to sterilise 5ha or more for sand and gravel, 3ha or more for chalk and greater than 1 dwelling for brickearth or brick clay; and
- b) any land-use policy, proposal or allocation relating to land within an MSA and/or MCA being considered by the Local Planning Authority for possible development as part of preparing a Local Plan ~~(with regard to the above thresholds).~~

Non-mineral development proposals that meet or exceed these thresholds shall be supported by a minerals resource assessment Minerals Resource Assessment, produced in conformity with the schedule set out in Appendix Two of this Plan, to establish the existence or otherwise of a mineral resource of economic national and/or

local importance and whether it is viable to extract within the context of the non-mineral development as a whole. If, in the opinion of the Local Planning Authority, surface development should be permitted, ~~consideration shall be given to the prior extraction of existing minerals.~~ the Mineral Planning Authority would require the prior extraction of minerals where this is assessed as being environmentally feasible and practical in the context of the development as a whole.

Unless excluded under Appendix Two of this Plan, development proposals within an MSA and/or within an MCA, which have the potential to sterilise land within an MSA below the relevant thresholds as set out above will be expected to assess the practicality of prior extraction to support the development being applied for.

If it is assessed that prior extraction is practical or environmentally feasible, applications are to set out the methodology for the prior extraction proposed.

If the assessment concludes otherwise, applications are to provide sufficient justification as to why prior extraction is neither practical or environmentally feasible and justify why the need for the development outweighs the national principles of mineral safeguarding as part of supporting information.

The relevant Local Planning Authority should also address this matter as part of its decision.

If non-mineral surface development is to be permitted, the prior extraction of minerals shall be carried out where it is assessed as being environmentally feasible and practical to do so in the context of the development as a whole.

#### ~~Mineral Consultation Areas~~

~~MCAs are designated within and up to an area of 250 metres from each safeguarded permitted minerals development and Preferred and Reserve Site allocation as shown on the Policies Map. The Mineral Planning Authority shall be consulted on:-~~

- ~~a) Any planning application for development on a site located within an MCA except for the excluded development identified in Appendix 5,~~
- ~~b) Any land-use policy, proposal or allocation relating to land within an MCA that is being considered as part of preparing a Local Plan~~

~~Proposals which would unnecessarily sterilise mineral resources or conflict with the effective workings of permitted minerals development, Preferred or Reserve Mineral Site allocation shall be opposed.~~

**Spatial Vision:** Policy links to the delivery of theme G.

**Strategic Objectives:** Policy links to the delivery of objective 5a 9.