

Replacement Essex Minerals Local Plan

2025 to 2040

(Regulation 18 – Issues and Options)

February 2024

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Policy S6 - General Principles for Sand and Gravel Provision

Policy S7 - Provision for Industrial Minerals

Policy S8 - Safeguarding Mineral Resources and Mineral reserves

Policy S9 - Safeguarding Mineral Extraction Sites and other Mineral Infrastructure

Policy S10 - Protecting and Enhancing the Environment and Local Amenity

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Policy DM1 - Development Management Criteria

Policy DM2 - Mineral Development Incorporating Primary and Secondary Processing Plants

Consultation Process

This document is the Regulation 18 consultation draft new Essex Minerals Local Plan 2025. The Minerals Local Plan 2025 will supersede the Minerals Local Plan 2014 upon adoption. Following a review of the Plan in 2019, the Council determined to produce a new Minerals Local Plan. Through the new Plan, the Council has reviewed and updated all policies and is extending the end date of the Plan to 2040.

To support the production of the Plan, Call for Sites consultations were undertaken in March and September 2022. The suitability of all submitted sites has been assessed. The results of all of these site assessments have been published as part of this Regulation 18 public consultation alongside this full draft of the Replacement Minerals Local Plan 2025 to 2040, and an associated evidence base justifying the policy approaches taken within this Plan. This can be found on the ECC website

The Replacement Local Plan evidence base includes the Council's response to all consultation representations received as part of the previous Minerals Local Plan review consultation (April 2021) and the informal engagement on sand and gravel provision (March 2022).

Whilst this Regulation 18 public consultation presents the Replacement Minerals Local Plan; including Plan provision figures and the assessments of submitted sites, this draft Plan does not present a list of preferred site allocations to meet the newly quantified minerals need for the County. Preferred site allocations will be presented in the next version of the Replacement Minerals Local Plan, following any reassessment required as part of consultation responses received on the methodology and its application across each site.

Following this Regulation 18 public consultation, we will assess all representations received to inform the next stage of production for the Plan.



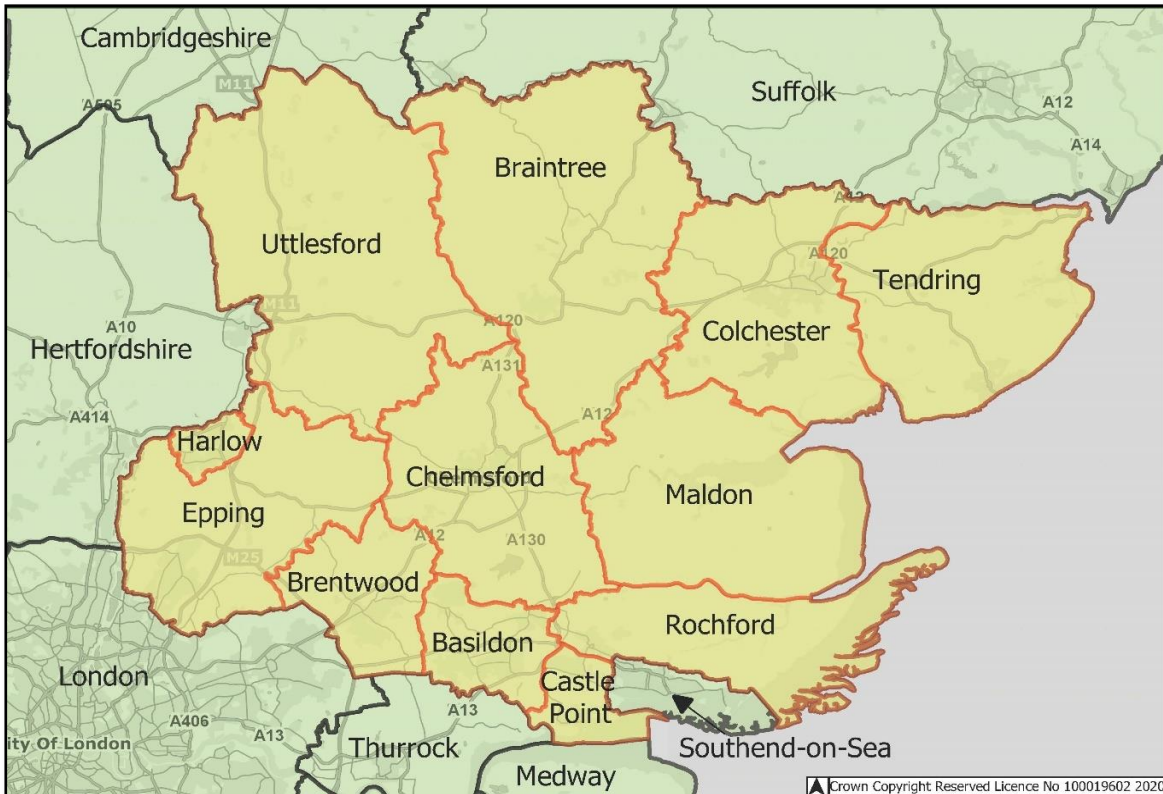
1.0 Introduction

Introduction

Background

- 1.1 Essex County Council (ECC) is the Minerals and Waste Planning Authority (MWPA) for the County of Essex, as defined in Map 1: It is to this area that this Plan applies.

Map 1: Essex Administrative Area



- 1.2 Future minerals supply and waste management are key challenges facing Essex, both now and in the future. The County Council has a statutory responsibility to determine mineral and waste planning applications. To facilitate this responsibility, ECC is preparing, monitoring and reviewing separate Minerals and Waste Local Plans, which supports the achievement of sustainable development within the County.
- 1.3 The planning system has an important role to play in achieving this goal. Planning helps to ensure the new facilities required are sited in the most suitable locations, are well designed and are carefully managed. Furthermore, the MWPA must consider the need to provide an adequate and steady supply of minerals. This is essential, both for the national economy and to support the County's economic growth. This can be in the form of enabling vital new development to take place, supporting key manufacturing processes, or ensuring the maintenance and improvement of our existing built and natural environment. This plan sets out how our future mineral needs will be met.

The Economic Importance of Minerals

- 1.4 Minerals underpin our entire way of life. They provide the construction materials upon which we all rely for the homes we live in, our places of work, our transport infrastructure and essential services such as health, education, water and sewage systems and recreational facilities. They are essential to energy generation, agriculture, manufacturing and many other businesses. Every new home requires an average of 60 tonnes of mineral products. In short, we could not maintain our current way of life without them.
- 1.5 However, minerals are a finite natural resource and can only be worked - extracted from the ground - where they are found. It is vital we only extract what is needed, prevent unnecessary sterilisation of mineral resources, and make best use of them to secure their long-term availability and conservation.
- 1.6 The mineral sector works a valuable economic resource¹, and the community of Essex is well placed to benefit from its mineral assets; in particular sand and gravel, silica sand, chalk, brick clay and brickearth, with sand and gravel being the largest contributor.
- 1.7 The Plan comprises an important part of the 'Development Plan' in Essex, for it sets out how we will provide for our future mineral needs through local planning policies and land allocations. It provides the basis on which future planning applications for minerals development will be considered and determined. This provides greater certainty for both local communities and the minerals industry as to where future minerals development might take place. The Plan sits alongside other Development Plan documents produced by district, borough, and city authorities.

About the Minerals Local Plan

- 1.8 As set out in Map 1: , the Plan area comprises the administrative area of Essex County Council, covering an area of 3,737km². Essex is located to the northeast of London, within the East of England region, and borders the counties of Hertfordshire, Suffolk, and Cambridgeshire. To the south, the Plan area borders the unitary authorities of Southend-on-Sea and Thurrock, the London Boroughs of Enfield, Waltham Forest, Redbridge and Havering. Within the County of Essex, the two-tier administrative system includes 12 district, borough, and city Councils. Under the two-tier system, the County Council is the 'local planning authority' for all minerals and waste planning matters for the whole of the County, whilst each of the 12 Essex district, borough and city councils take responsibility for the majority of other local planning decisions, such as for housing, commercial, retail, and recreational development in their respective areas.
- 1.9 This is a positive 'spatial plan' which aims to deliver sustainable development. The Plan has a central role in supporting economic growth in the County

¹ See Mineral Products Association website for the latest statistics regarding the contribution that minerals make to the UK economy (<https://www.mineralproducts.org/>)

through the delivery of land, buildings, and infrastructure to meet our future needs. At the same time, it ensures positive steps are taken to protect and enhance the County's unique natural, historic and environmental assets and resources. It also has a key role to play in supporting the strong, vibrant and healthy communities in Essex to make them sustainable for the future.

- 1.10 The Plan provides a picture of how we see minerals development in the County taking place up to 2040, the steps needed to make this happen and the measures necessary to assess our progress. It further provides a clear policy framework for all parties involved in future minerals (and minerals related) development.
- 1.11 The Plan should be read and interpreted in its entirety with due regard paid to all of the relevant policies and proposals included within it.
- 1.12 The plan-period covers 15 years between **2025-2040**.

The Plan's Legal Status

- 1.13 The Plan has been prepared to comply with the legal requirements of legislation and provisions of national planning policy. Although the UK has now departed from the European Union (EU), EU Directives still provide much of the legislative context for minerals (and waste) planning, that is then transposed into national legal documents. These national documents include the Town and Country Planning Act 1990, the Town and Country Planning (Local Planning) (England) Regulations 2012, the Localism Act (2011) and Environmental Assessment of Plans and Programmes Regulations (2004). This Plan has also been prepared to be in conformity with the National Planning Policy Framework (NPPF). Particular regard has been paid to the NPPF's emphasis on supporting economic growth through the plan-led system and its presumption in favour of sustainable development, albeit within the context of conserving and enhancing the natural and historic environment.
- 1.14 This Plan forms part of the statutory 'Development Plan' for Essex and should be read in conjunction with each of the Local Plans/Local Development Frameworks prepared by the 12 Essex district, borough and city planning authorities. Where policies in this Plan refer to the Development Plan this means:
 - All the policies in this Plan;
 - All the policies in the adopted Essex and Southend Waste Local Plan;
 - All the policies in the Local Plan/ Local Development Framework prepared by the relevant Essex district, borough and city council; and
 - Where it exists, all the policies in the Neighbourhood Plan pertaining to the area of interest.

The Minerals Supply Hierarchy

- 1.15 The Plan's overarching strategic ambition is to deliver the mineral supply hierarchy in Essex. The hierarchy aims firstly to reduce, as far as practicable,

the quantity of mineral used, and the construction, demolition and excavation waste generated (Policy S4). Secondly, to use as much secondary and recycled mineral as possible (Policy S5), before finally securing the remainder of mineral needed through new primary extraction (Policy S6 and Policy S7). The rationale behind the minerals supply hierarchy has underpinned all plan preparation work undertaken since 2005 and continues to provide a coherent and sound foundation for this Plan.

Minerals Development Covered by Plan

1.16 Minerals are natural substances (solid and liquid) that can be extracted from the earth at surface level or underground by means of mining, quarrying, and pumping. In Essex, the key minerals found and worked are sand and gravel, silica sand, brickearth, brick clay, and chalk; all are worked at surface level in solid form. The geology does not support underground mines in the County. Minerals development differs from other forms of development because minerals can only be worked where they occur naturally, as a viable resource.

1.17 The following definitions are provided for guidance:

- 'Mineral working' or 'mineral extraction' refers to the quarrying of mineral;
- 'Mineral Infrastructure' are facilities that support the extraction and distribution of minerals, such as transshipment facilities (rail aggregate depots and coastal wharves), facilities for aggregate recycling, and secondary processing facilities (such as coated roadstone and concrete/mortar batching plant);
- 'Minerals development' includes all of the above, as well as other ancillary development, such as site offices and weighbridges.

1.18 The Replacement Minerals Local Plan is applicable to all mineral development within the County. There are no hard rock deposits within the County (from which crushed rock is derived), with all our 'needs' imported from other areas of the UK. In particular, the Plan covers the following minerals that can be extracted economically in Essex:

- **Sand and Gravel.** This material, when processed, is an aggregate used by the construction industry. It is defined by its individual particle size, rather than what it is made of. The County is one of the largest producers of sand and gravel in the UK.
- **Silica Sand.** This is higher value sand, which contains a high proportion of silica in the form of quartz and has a narrow grain size. Silica sand is used for a variety of industrial uses and is currently extracted from one site in the Plan Area, located in the north-east of Essex.
- **Brick Clay.** This is sedimentary material (not classed as an 'aggregate') and is the term used to describe clay, shale, mudstone and other such materials used in the manufacture of structural clay products. Brick manufacture is by far the largest tonnage use, with other uses including clay tiles for roofing and cladding and vitrified clay pipes.

- **Brickearth.** Brickearth is a term which describes a specific material, used to make bricks comprised of the clay and silt deposits associated with the First River Terrace of the Thames. Within Essex this is located primarily in Rochford District, although there are currently no brickworks in this location. Typically, they are used as a feedstock for the golden yellow 'London Stock' brick. Brickearth is also not classed as an aggregate.
- **Chalk.** Is similarly not classed as an aggregate. It is a form of sedimentary limestone rock produced mostly for agriculture, but also used in small amounts in the pharmaceutical industry. Chalk outcrops only occur in the north-west of the County, where one extraction site currently produces white chalk.

Marine Aggregate Provision

- 1.19 Both the terrestrial and marine planning systems apply to the intertidal area (between Mean High Water Spring tides and Mean Low Water Spring tides). This Plan, therefore, does not apply to the maritime, coastal, and estuarial areas that adjoin the County, beyond the level of mean high water at spring tides. These marine areas are administered separately as stated in the Marine & Coastal Access Act 2009.
- 1.20 Proposals for marine dredging of aggregates are determined by the Marine Management Organisation (MMO) under these policy arrangements. They make decisions in accordance with national maritime policy, set out in the UK Marine Policy Statement (March 2011). However, in accordance with national policy, the Replacement Essex Minerals Plan does have a role in the safeguarding of transshipment sites and therefore it will safeguard marine wharves and associated facilities.



2.0 Spatial Portrait and Key Mineral Planning Issues

Spatial Portrait

Essex at a Glance

2.1 It is necessary to understand the characteristics of Essex and key drivers for future development. The purpose of this chapter is to set out the spatial context for the Replacement Essex Minerals Local Plan (RMLP), by providing a summary of the Plan area characteristics that have an influence on future minerals and minerals related development.

Population and Economy

- Essex had an estimated population of 1.5 million people in 2021, an increase of 7.6% since the 2011 census. ²
- South Essex, including the Essex Thames Gateway, Southend and Thurrock is the largest growth corridor, accounting for 36% of the Greater Essex economy. It is made up of the Essex Thames Gateway (19% of Gross Value Added (GVA)), and Southend and Thurrock each accounting for 8% of GVA. Essex Haven Gateway contributes nearly a quarter of the county's GVA; Heart of Essex 21% and West Essex 19%.³
- Local authorities are preparing Local Plans to deliver approximately 150,500 new homes in Essex up to 2036 and beyond.
- Most people live in the main urban areas, consisting of the large/key settlements and more dispersed smaller settlements. The population of Essex stands at 1.5 million (2021). The county's population is expected to increase to 1,666,077 by 2043.⁴
- According to the 2021 Census, Colchester has the largest population within Essex at approximately 192,000 people, followed by Basildon (approx. 187,000 people).
- There is a substantial employment base, including major manufacturing enterprises, service sector functions, logistics and international transport gateways.
- While mineral working directly accounts for a small proportion of economic output (quarrying provides several hundred jobs) it plays a vital strategic role in facilitating the County's economic growth and regeneration.

Transport Infrastructure

- The strategic road and rail network forms a 'wheel and spoke' pattern reflecting the economic dominance of London and the importance of the

² Office for National Statistics (ONS) (shorturl.at/qzIU4)

³ <https://www.essexgrowth.co.uk/media/1020/enterprising-essex.pdf>

⁴ From ONS 2020-based subnational population projections

main distribution networks.

- Aggregate is mainly exported by rail from rail transshipment facilities at Harlow and Marks Tey (near Colchester). There are some cross-boundary movements of aggregate by road into and from neighbouring areas.
- There is an extensive road and rail network in Essex, but the rail network is considerably less flexible for practical aggregate movement around the County. Trunk roads and rail routes all suffer from congestion and capacity limitations.
- Despite the potential impacts to the road network as a consequence of mineral development, there are limitations with alternative transport modes as the rail network is also under pressure and mainly geared for passengers. Transporting minerals by water is another alternative to road transport but opportunities in the Plan area are small due to the absence of wharf facilities managing aggregate within the Plan area.

Environment

- Essex has an exceptionally rich historic environment, including sites of archaeological importance, contributing significantly to the character of the County.
- There are 13,989 Listed Buildings, 300 Scheduled Monuments, 39 Registered Parks & Gardens and 32,642 recorded archaeological sites.
- 86% of the land area of Essex is productive farmland. Half of this land is graded as Grade 1, 2 or 3 under the Agricultural Land Classification, meaning it is of a high quality.
- Much of the 350 mile long coastline (excluding shorelines along the various river estuaries) is of international/ national biodiversity importance.
- Essex contains 27 Priority habitats (four of which are marine) and over 350 Priority species.
- An extensive part of the south and west of the County is covered by the Metropolitan Green Belt. There are two Areas of Outstanding Natural Beauty (AONB) at Dedham Vale in the north east and Suffolk Coast and Heaths, which has been extended (2020) along the south side of the Stour estuary.
- The County expects to face challenges arising from changes in climatic conditions, including flood events, droughts, coastal erosion and sea level rise.
- Despite most of the population living in urban areas, three quarters of Essex's land area is rural, consisting of undulating countryside, rolling fields, picturesque and historic villages, internationally significant coastline, ancient woodlands and a number of important rivers that meander through the low-lying topography of the county eastwards towards the coast.

- Protection of the environment is a key objective with significant areas of land designated as protected landscapes, open spaces, and areas of ecological, historical, and geological value.
- The Metropolitan Green Belt encircles Greater London and covers most of the districts of Epping, Brentwood, Basildon and Rochford, about a third of Chelmsford City and parts of the administrative areas of Castle Point, Harlow, Uttlesford and Southend-on-Sea. The Green Belt covers approximately 86,000 hectares; approximately 22% of the County.
- Essex hosts a variety of important lowland habitats, which are protected nationally and internationally. In particular, the Essex coast is recognised as a significant area, with great importance also attached to the wood-pasture of Epping Forest and the wetlands of Abberton Reservoir and the Lee Valley.
- In total, there are 81 Sites of Special Scientific Interest (SSSI) covering 31,056 hectares of the Plan area, ten Special Protection Areas and three Special Areas for Conservation designated for wildlife covering 59,109 hectares and ten other international sites (Ramsar sites) covering 26,662 hectares. There are also two AONB's in the plan area; the Dedham Vale on the Essex and Suffolk border and Suffolk Coast and Heaths, which extends from the north bank of the river Stour in Tendring, to Kessingland in East Suffolk. These protected areas are supported by a network of sites of county/ district value for nature conservation which are known as Local Wildlife Sites (LoWS) and Local Geological Sites (LoGS).

Geology & Mineral Infrastructure

- Essex has extensive deposits of sand and gravel.
- There are more localised deposits of silica sand, chalk, brickearth and brick clay.
- Marine dredging takes place in the extraction regions of the Thames Estuary and the East Coast, whilst aggregate is landed at marine wharves located in east London, north Kent, Thurrock, and Suffolk. Essex has no landing wharves of its own.
- There are no hard rock deposits in the County so this material must be imported into Essex. This currently occurs via rail to the existing rail depots at Harlow and Chelmsford.
- Essex is the largest producer and consumer of sand & gravel in the East of England. As of 31st December 2021, there were 20 active sand and gravel quarries, one of which also extracts silica sand, two brick clay and one chalk site extraction sites.
- As of 31st December 2021, there were no active marine wharves, but there were four active rail depots capable of handling aggregate. At this time,

construction, demolition and excavation waste was also recycled at 71 active aggregate recycling sites in Essex.

- Aggregate is both imported into Essex (hard rock, and sand and gravel) and exported (sand and gravel, primarily to London). Map 3 shows the movement of aggregate in and out of Essex.

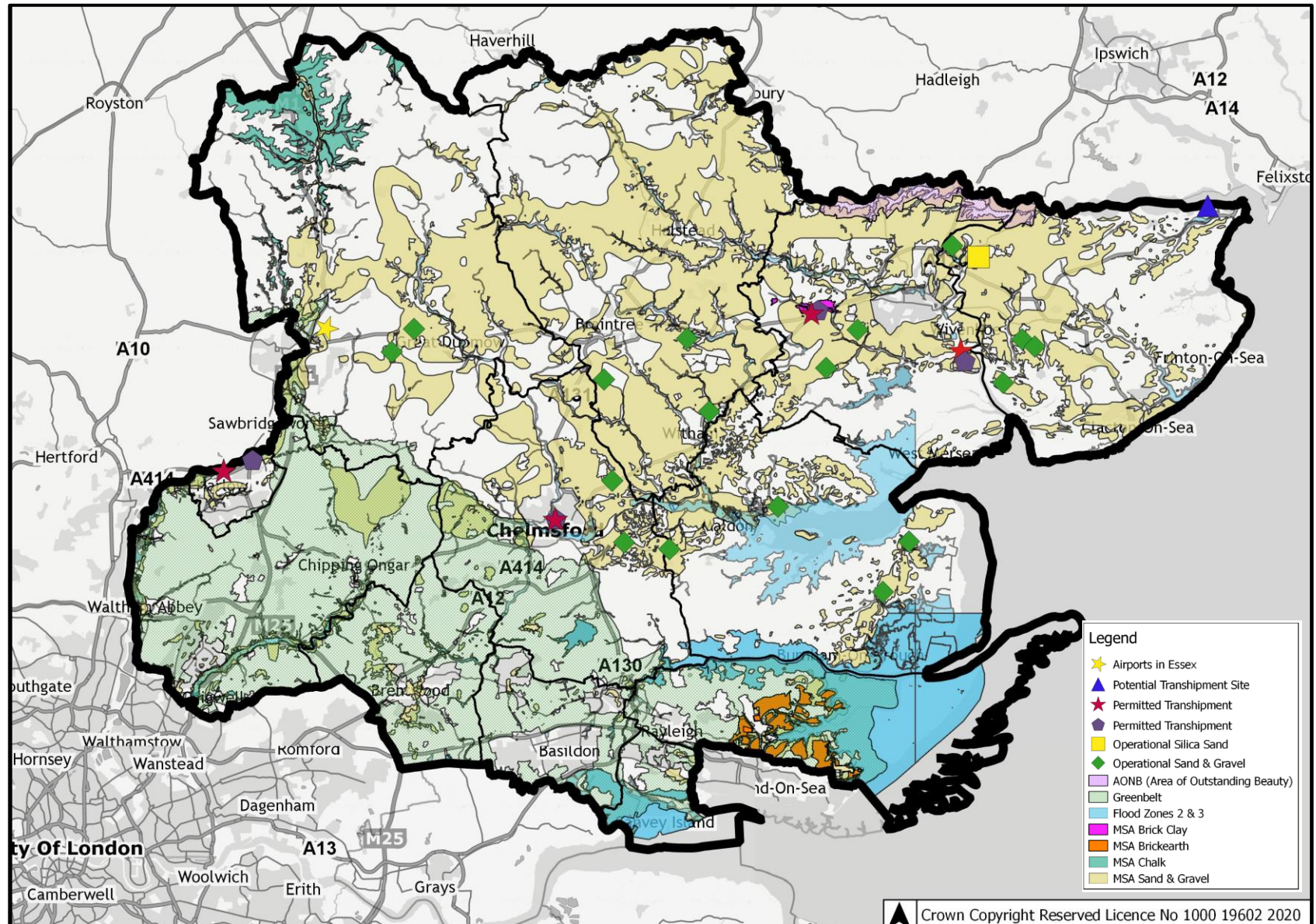
Climate Issues

- Essex lies within a particularly dry part of the country, with an average rainfall that is 35% less than that of England and Wales as a whole. However, the low-lying coastline is susceptible to flooding and the many coastal estuaries spread this risk inland. The risk of flooding is likely to increase with climate change without appropriate mitigation because of rising sea levels, climatic instability and more frequent extreme weather events.

2.2 A portrait of Greater Essex, highlighting the spatial location of much of the information above, is presented as Map 2.⁵

⁵ While the Plan area does not include the unitary authorities of Southend-on-Sea and Thurrock, given the inter-relationships with the County, they are shown for indicative purposes. Please note, straight-line boundaries shown in the sand and gravel resource data are as a result of a series of resource mapping programs undertaken during the 70s and 80s which reported by Industrial Assessment Mapping Unit (IMAU). For the IMAU study areas, numerous sand and gravel specific boreholes were drilled, meaning these areas have a much higher level of confidence for the presence of resources compared to other areas. The straight lines represent the boundaries of the IMAU study areas and reflect the data which informs the British Geological Survey's Mineral Resource maps.

Map 2: Spatial Portrait of Greater Essex



Spatial Portrait

County of Essex

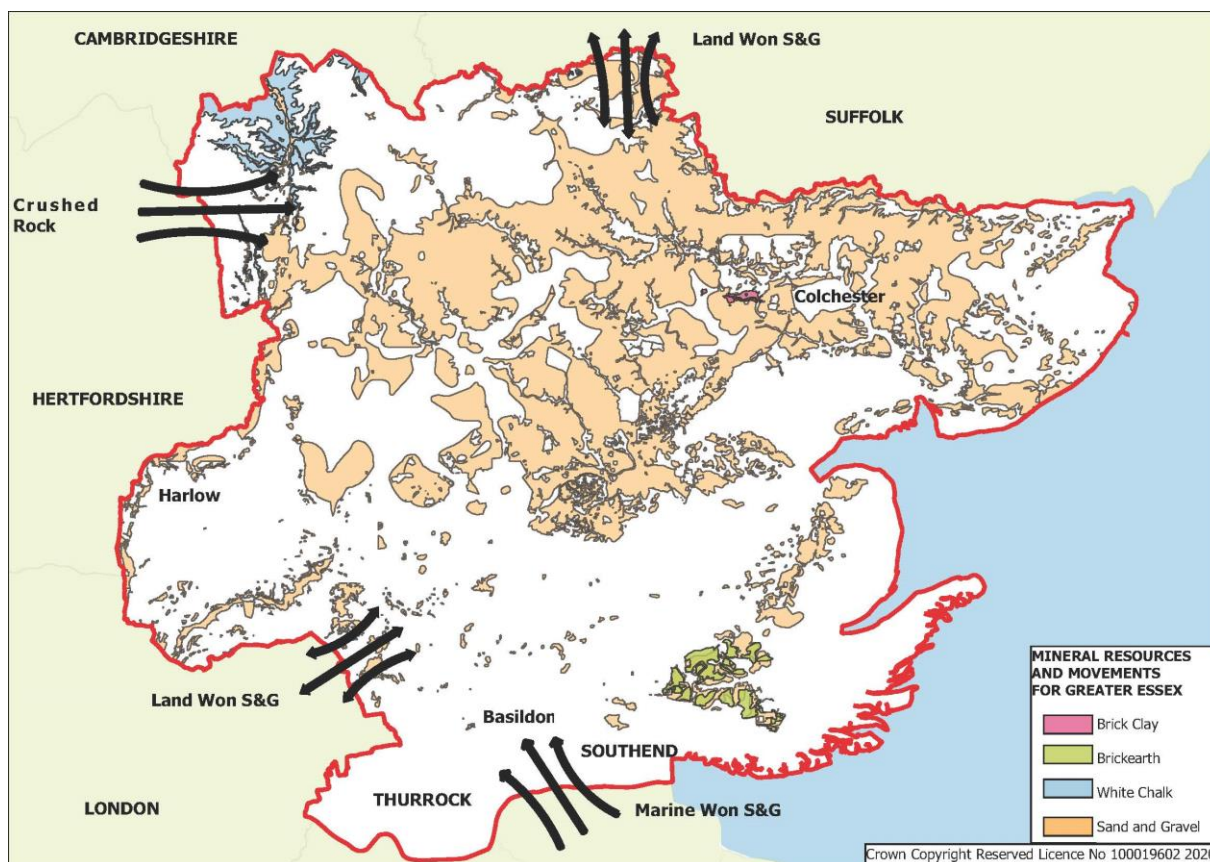
- 2.3 The County of Essex is located to the north east of London and is bordered to the east by the North Sea and to the south by the River Thames. The County's northern boundary is delineated by the River Stour for much of its length adjoining Suffolk; and to the west the boundary is defined by the River Lea for much of its length, adjoining Hertfordshire. The River Lea extends south to London.
- 2.4 The County itself holds an excellent strategic location in the prosperous south east of England and has access to large domestic markets, a close proximity to London and good transport connections to mainland Europe. The north of Essex is close to the world leading academic, research and development, and life sciences cluster in the Cambridge area.
- 2.5 Essex is well connected to these economic markets by both road and rail. The M25, M11, A12, A127, A120, and A13 provide the main road arteries. These road corridors, with the exception of the London orbital M25 motorway, are also matched by national rail corridors providing for passengers and freight (London to Cambridge; London to Norwich; and London to Southend).
- 2.6 Harwich International Port, one the UK's most important sea ports, is located to the north-east of the County and provides regular services to the continent. In north-west Essex, Stansted Airport adjacent to the M11 motorway is London's third largest airport for passengers and freight. Although just beyond the Plan area boundary, Southend Airport to the south-east is developing its role as a regional airport serving Greater Essex, London and the wider South East.
- 2.7 The Association of South Essex Local Authorities (ASELA) is a partnership of six neighbouring councils that have come together to promote growth and prosperity. ASELA consists of Basildon, Brentwood, Castle Point, Rochford, Southend-On-Sea, and Thurrock Councils. The southern part of Essex is heavily urbanised, with a complex pattern of large to medium-sized towns. This area is notable for its large economic base and strong focus on port and logistics activities. London Gateway port forms part of the Thames Gateway, which is a national growth area and the largest multi-modal logistics and business park in the South East of England.
- 2.8 The major centres are Chelmsford and Colchester, both located on the A12/Great Eastern rail corridor with over 100,000 residents each. Chelmsford, Colchester and Basildon are identified for major growth with annual housing requirement being the highest in these areas. Garden Communities would provide 40,100 new homes across Harlow and Gilston, North East Chelmsford and the Tendring/Colchester borders.
- 2.9 Braintree, Colchester and Tendring in north-east Essex are, along with parts of neighbouring Suffolk, within the national growth area of Haven Gateway. They

are associated with significant urban growth, major ports and logistics activities, Information and Communications Technology (ICT), and research and development activities.

- 2.10 Rural areas, which comprise three-quarters of the County's administrative area, contain environmental assets of considerable importance. There are extensive areas of high quality agricultural farmland (within grades 1, 2 and 3a of the Agricultural Land Classification), of which much is underlain by sand and gravel, a network of ancient woodland and major sites of international and national importance for biodiversity. There are numerous historic towns and villages as well as many archaeological sites and heritage features of national significance.
- 2.11 Dedham Vale in north Essex/south Suffolk and Suffolk Coast and Heaths are the two designated AONB's in the County.
- 2.12 Several important rivers and parts of river systems meander through the low-lying, gently undulating topography of Essex. These are associated with local designations of valued landscape worthy of protection and enhancement. The undeveloped Essex coast is subject to stringent policy protection from future development because of its biodiversity, landscape and heritage importance.
- 2.13 The Metropolitan Green Belt extends over substantial parts of the western, central and southern parts of the County. The stated purpose of the Green Belt is to avert urban sprawl by, for example, limiting the outward spread of London, preventing the joining together of existing settlements and safeguarding the countryside from urban encroachment. The Green Belt prevents urban sprawl by ensuring that land within designated Green Belt boundaries is kept permanently open. The NPPF states that minerals development need not be inappropriate development in the Green Belt so long as the openness of the Green Belt is preserved, and proposals do not conflict with the purpose of including land in the Green Belt.
- 2.14 Essex is likely to face challenges arising from future changes. Predicted increases in rainfall intensities will make surface water and fluvial flooding increasing likely. However, as well as increasing rainfall intensities and sea level rise, there will also be longer spells of dry weather which could conversely lead to water scarcity across the county. The County must adapt and mitigate for these impacts, and all proposed new development, including mineral development, must be mindful of this. All local authorities in Essex have declared a climate emergency, and Essex County Council has established the Essex Climate Action Commission to advise on tackling climate change.
- 2.15 During the Plan period a significant amount of growth and a range of major infrastructure projects are proposed to be developed, which will impact the minerals needs for the area. The current major growth locations are Basildon, Braintree, Chelmsford, and Colchester, a number of local planning authorities in Essex are working together on the production of Joint Strategic Plans. When these plans are adopted, they may impact on historic patterns of growth. The current major growth locations will continue to be the main drivers of significant economic and housing growth in Essex in the short term. They will be the focus for employment, retailing and other commercial activities, education, health

care, administration, culture, and tourism. They will continue to provide good access to interchange facilities for public transport serving both urban and inter-urban travel. Additional growth will be focussed on the market and coastal towns elsewhere in the County. The Growth Locations and Projected Growth in Essex 2025-2040 Topic Paper examine the level of growth which we are planning for in the County, and the associated impacts upon the amount of mineral development required to meet our needs.

Map 3: Spatial Pattern of Mineral Resources in Essex



County Mineral Resources

2.16 Map 3 sets out the spatial supply pattern and indicative movements of aggregates into and out of Essex, as explained below.

Sand and Gravel

2.17 Essex has extensive Kesgrave formation sand and gravel deposits, which was laid down during the Ice Age and in river terraces. The river terrace deposits are found not only along current river valleys, but also in historic river channels that are now dry.

2.18 The sand and gravel resources in Essex are:

- Significant in national, sub-national and local terms - Essex is one of the

largest producers in the UK;

- Most geographically extensive and significantly mixed within the centre and north of Essex – namely the districts of Uttlesford, Braintree, Chelmsford, Colchester and Tendring;
- Least extensive in south-east Essex, where deposits appear smallest and least workable, such as in the districts of Maldon and Rochford;
- Present along the River Lea valley terraces adjoining Harlow and Epping Forest districts;
- Mixed deposits are capable of being processed to supply a range of construction products, including building sand, sharp sands and gravel; and
- Used as a raw material to produce concrete, mortar, asphalt and construction fill, which is used in the construction industry and for roads.

2.19 The majority of the sand and gravel produced in Greater Essex (81% as of 2019) is used within Greater Essex⁶. This position looks unlikely to change over the long-term. Consequently, the main factor influencing production of sand and gravel in the future will be the need to meet the minerals demand for the whole of Essex, created by development (including new significant infrastructure projects) within Essex itself.

Silica Sand

2.20 Silica sand is another significant mineral resource found in Essex. It is classified as an 'industrial sand' and its distinction from construction sand is based on its applications/uses and market specification. Silica sand contains a high proportion of silica in the form of quartz and has a narrow grain size distribution compared to other sand in Essex.

2.21 Silica sand resources are:

- Processed for industrial purposes at Ardleigh, north-east of Colchester, from a mixed resource of silica sand and sand and gravel (as described above);
- Normally command a higher selling price above that of regular construction aggregates, allowing them to serve a wider geographical market as the relatively high price off-sets transport costs;
- Used in industrial processes such as glassmaking, foundry casting, ceramics, chemicals and water filtration.

Brickearth and Brick Clay

2.22 Brick clay is extracted at two sites in Essex, namely Bulmer Brickworks in north Essex and Marks Tey Brickworks, west of Colchester.

2.23 Brickearth is found in shallow seams in south-east Essex, particularly in

⁶ Greater Essex is the lowest reporting tier, specific information for the county of Essex is not possible, due to the commercial confidentiality of operations in Thurrock and Southend-on-Sea.

Rochford District, although this is not currently worked. There is, however, the potential for this material to be extracted economically at some point in the future, so the resource needs continued protection.

2.24 The brick clay and brickearth resources in Essex are:

- Capable of economic use in the small-scale manufacture of bricks, roof tiles and clay materials;
- For brick clay, present in isolated and localised pockets within the County whereas the extent of brickearth is wider although largely confined to Rochford district;
- Used for specialist uses, such as the construction and restoration of buildings and serving markets of a more sub-national and local character; and
- Required to be safeguarded to conserve its continued availability for future generations.

Chalk

2.25 Chalk underlies the whole of Essex although over much of the area it is overlain by London Clay and younger deposits. It is the oldest rock exposed at the surface. The chalk resources in Essex are:

- Present under the whole of Essex but outcrops only in the north west, particularly in Uttlesford District;
- Currently extracted at only one site in the form of white chalk at Newport Quarry;
- Used mostly for agricultural use, although small quantities can be used by the pharmaceutical industry;
- Not associated with a landbank in Essex as it is extracted as an agricultural mineral rather than as an industrial mineral.

Mineral Links with Other Areas

Hard rock

2.26 Greater Essex does not have any indigenous hard rock, so this resource is imported into the County, predominantly by rail. For example, imports include igneous hard rock imported from the East Midlands and limestone from the South West. This mineral arrives by train at rail depots in Harlow and Chelmsford.

Marine dredged aggregates

2.27 Marine dredged aggregates provide an important additional source of material for construction aggregates, beach replenishment and some industrial processes. This material is sourced from the seabed off Britain, which is

controlled and licensed by the Marine Management Organisation.

- 2.28 No marine dredged aggregates are landed in Essex, but there are marine landing points located in neighbouring authorities, in north Kent, east London, Thurrock and Suffolk (Ipswich), which are potentially able to serve parts of Essex and contribute to the overall supply coming into Essex.

Sand and Gravel

- 2.29 Although the County is one of the largest producers of sand and gravel in the UK, there are also imports of this resource into Greater Essex. In 2019, Greater Essex imported 0.1 Million tonnes (Mt) of land-won sand and gravel, whilst the area 'consumed' 2.48Mt of land-won sand and gravel. This equates to the importation of 4% of the total land-won sand and gravel consumed and is a figure which is reported on annually through the Local Aggregate Assessment.

What mineral resources do we export?

- 2.30 In 2019, 12% of the sand and gravel produced in Greater Essex is exported to the remainder of the East of England region and 7% is exported 'Elsewhere' in the UK. This means that the total exported from Greater Essex is 19% of total production. Imports and exports are reviewed annually through the Local Aggregate Assessment, but this detail is presented in the national survey for the year 2019.

How are our Minerals Transported?

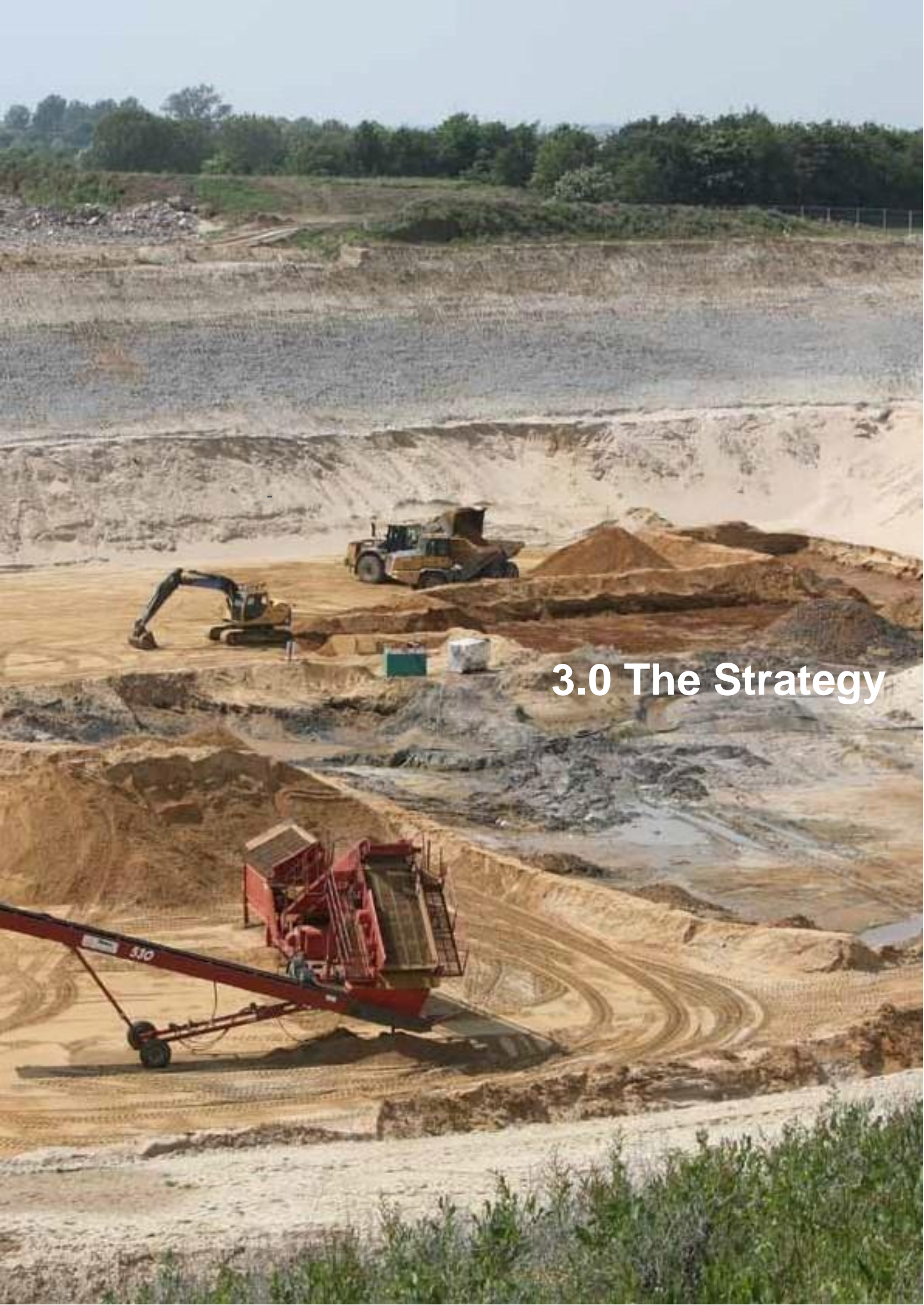
- 2.31 Most mineral produced in Essex is transported within the County by Heavy Goods Vehicles (HGV's) on the road network. Only certain roads are appropriate for HGV traffic and the Highway Authority has defined a main road network where such traffic is acceptable. For road movements, mineral policy requires mineral-transporting HGVs to access the main road network upon leaving a mineral site at the earliest practical opportunity. Rail is more commonly used to transport bulk minerals over longer distances such as when importing hard rock and exporting sand and gravel in and out of the County. Water-borne transport is encouraged in the Plan.
- 2.32 Minerals are capable of being exported by rail from rail transshipment facilities at Harlow and Marks Tey (near Colchester). There are some cross-boundary movements of aggregate by road into and from neighbouring areas. Evidence suggests it is more efficient to transport aggregate by road over short distances of up to 60 km (36 miles) and therefore this pattern is expected to continue. The export of sand and gravel to London is mainly undertaken by road, and rail.
- 2.33 There is an extensive road and rail network in Essex but the rail network is considerably less flexible for local movements around the County. The movement of people takes much of the available rail capacity. Unlike neighbouring areas such as London, Thurrock, north Kent, and Suffolk, the County has no water-based transport networks and loading/unloading facilities.

Key Mineral Issues to be Addressed by This Plan

2.34 The character of the County, policy and guidance, the evidence base and consultation feedback has resulted in the Spatial Vision in the next chapter. This provides a picture of how mineral and mineral related development will be provided in the County during the period up to 2040. The nine strategic priorities to achieve this aim are set out in Policy S2. The Vision is broken down into eight aims comprised of fourteen Strategic Objectives.

2.35 The Aims and Strategic Objectives presented in the next chapter have been identified from the following sources:

- National, sub national and local policies and guidance, which provide background policy context about what the Plan's scope and content should cover;
- The technical evidence base and specialist assessments, which have identified the issues to be addressed;
- The results of consultation, which have enabled stakeholders to express views about issues, different policy approaches, and relative priorities;
- Co-ordination with other forward planning documents, which are relevant in influencing and shaping the Plan's content; and
- Active engagement with the Essex district, borough and city councils, other mineral planning authorities and other public bodies, including engagement under the Duty to Co-operate, as well as key stakeholders including the mineral industry and Aggregates Working Party.



3.0 The Strategy

The Strategy

Spatial Vision

- 3.1 The Vision provides a picture of how mineral and mineral related development will be provided in the County during the period up to 2040. It is the MWPA's view of sustainable mineral development in Essex, following public and stakeholder engagement.

Table 1: Vision Themes for Essex to 2040

a) Sustainable Development

Minerals development will make a positive contribution to Essex, through a planned, collaborative approach that promotes the sustainable use, re-use, recycling and extraction of minerals. Sustainable mineral and mineral-related development will be approved without delay, when in accordance with this Plan.

b) Primary Mineral Provision

Essex will continue to be a major producer and user of sand and gravel, with the majority of that produced being used within the County itself. This will enable planned growth within district, borough and city authority plans to occur, and facilitate the maintenance of existing infrastructure. A steady and adequate supply of sand and gravel will be provided, having regard to the Local Aggregate Assessment and the targets agreed with the East of England Aggregates Working Party. Phasing has been introduced so as to avoid over-supplying in order to protect Essex's environment and our finite mineral resources. Plan provision and/or policy approaches will also be set out for silica sand, chalk, brickearth and brick clay, such that the Plan flexibly responds to market requirements

c) Co-ordinating the Supply of Minerals into Essex

Sources of aggregate, whether primary, secondary or recycled, will be planned to serve the whole of the county. Wherever possible, these will be located in proximity to the County's main growth centres, as set out within existing or future adopted Local Plans and/or Joint Strategic Plans, to maintain an appropriate match between mineral supply and demand. Proposals for borrow pits, linked to significant infrastructure projects, will be assessed on a case-by-case basis. The lack of primary aggregate resources in the south and west of the County will continue to require the movement of mineral to these locations from other parts of the County, or beyond, and an appropriate spatial distribution and effective routing of this mineral onto the main road network will be key in facilitating county-wide coverage.

The long distance importation of mineral resources, including those non-indigenous to Essex, will be maintained to ensure that the local economy has access to these essential minerals. The existing infrastructure of rail depots in Essex will be safeguarded and flexible, criteria-led policies will allow the market to increase transshipment capacity. It is however likely that rail depots and marine landing wharves in neighbouring Thurrock, and beyond, will remain important with regards

to the long distance movement of minerals.

d) Protecting Amenities and Communities

All minerals development will be well-designed to afford protection to local communities and to contribute to the enhancement of the built, natural and historic environment. Mineral developers will engage with communities to create the most appropriate local solutions.

e) Climate Change

Ensuring all minerals development is located, operated and managed whilst having regard to climate change mitigation and adaptation, so the County plays its part in reducing greenhouse gas emissions and is resilient to potentially more extreme future weather conditions.

f) Reduce, Re-use and Recycling of Minerals

Minerals previously extracted from the ground will be used sustainably as far as is practicable. The recycling and reuse of construction, demolition and excavation waste will be maximised by safeguarding existing soil and aggregate recycling facilities and locating new facilities in proximity to for growth locations, as set out in existing or future adopted Local Plans and/or Joint Strategic Plans. Proposals for minerals infrastructure, linked to significant non-mineral infrastructure projects, will be assessed on a case-by-case basis. The Council promotes sustainable procurement and construction techniques and the use of alternative building materials in accordance with national and local policies.

g) Protecting Mineral Resources and Facilities

The unnecessary sterilisation of mineral resources by non-mineral development will be avoided by designating 'Mineral Safeguarding Areas' (MSA's) for sand and gravel, chalk, brick clay and brickearth. These MSAs will be supported by Mineral Consultation Areas (MCA's). Existing, permitted and allocated mineral sites, and mineral supply infrastructure, will be safeguarded to ensure that sensitive or inappropriate development that would conflict with the effective operation of these sites is not established in close proximity. Mineral Infrastructure Consultation Areas (MICAs) will be designated to prevent incompatible development taking place close to existing or allocated minerals development to prevent significant adverse impacts on future occupants or operators of the existing minerals infrastructure.

h) Restoration and After-use

Mineral workings are temporary in nature. Restoration and after-use schemes will continue to be integral to site selection and the consideration of planning applications, with progressive working and restoration schemes expected. The focus of after-use will shift from purely agricultural uses, important though they remain, towards integrating the cross-cutting benefits of green and blue infrastructure and natural capital growth, by means of increased provision for biodiversity and geodiversity, climate change adaptation and outdoor recreation, including Public Rights of Way. Where working is proposed on the best and most versatile agricultural land, restoration schemes should show, where practicable, how the methods used in the restoration and aftercare enable the land to retain its longer term

capability for agriculture. Restoration proposals should also reflect local priorities in existing or emerging green and blue infrastructure strategies where they exist to align proposals with the wider Development Plan.

i) Communities

Collaborative working arrangements will forge stronger links with communities, stakeholders and local planning authorities, as well as neighbouring and more distant planning authorities on whom we rely for non-indigenous minerals. Collectively we will address the sustainable long-term supply of primary aggregates and the protection of public amenity.

j) Economy and Long Term High Quality Environment and Landscape

As well as bringing economic advantages, effective collaborative working will ensure minerals development makes a positive contribution to our environment and biodiversity, through the protection and creation of high quality habitats and landscapes that contribute to a high quality of life for present and future generations.

Aims and Strategic Objectives

- 3.2 The Vision outlined above will be expressed and delivered through the aims and objectives set out below. Individual Plan objectives respond to the three objectives of sustainability as set out in the NPPF by aiming to facilitate positive impacts across economic, environmental, and social principles.

Aims	Strategic Objectives
<p>1. To promote sustainable development.</p>	<p>a) To ensure sustainable minerals development can be approved, without delay, in accordance with the presumption in the National Planning Policy Framework.</p> <p>b) To ensure minerals development supports the proposals for sustainable economic growth, regeneration, and development outlined in adopted Local Plans and Joint Strategic Plans prepared by Essex district, borough, and city councils.</p> <p>c) To maintain a plan-led approach to future provision, providing reassurance for Essex residents, the minerals industry, key stakeholders and future developers that future needs can be met, whilst also providing a degree of certainty as to where minerals development will take place.</p>
Aims	Strategic Objectives
<p>2. To promote social inclusion, human health and well-being.</p>	<p>a) To ensure that local communities are consulted and their views considered during the development of minerals proposals and in the determination of planning applications for minerals development.</p> <p>b) To ensure that the impacts on amenity of those people living in proximity to minerals developments are rigorously controlled, minimised and mitigated.</p>
<p>3. To promote the efficient use of minerals by using them in a sustainable manner and reducing the need for primary mineral extraction.</p>	<p>a) To reduce reliance on primary mineral resources in Essex, firstly through promoting the mineral supply hierarchy to reduce the need for primary extraction of minerals and, secondly, by minimising waste by requiring that as much demolition, construction and excavation waste is re-used and/ or recycled, as far as is practicable.</p>

Aims	Strategic Objectives
<p>4. To protect and safeguard existing mineral resources and permitted mineral reserves, existing permitted mineral sites and Preferred Sites for mineral extraction, as well as existing and proposed sites for associated mineral development.</p>	<p>a) To identify and safeguard the following in Essex:</p> <ul style="list-style-type: none"> • Sand and gravel, silica sand, brickearth, brick clay and chalk resources which have potential local and/ or national importance to ensure that the practicality of prior extraction of mineral is appropriately assessed when other necessary non-mineral development might unnecessarily sterilise viable mineral resources; and • Existing permitted and allocated mineral infrastructure to prevent sensitive or inappropriate development that would conflict with the use of these sites, in accordance with the Agent of Change principle.
<p>5. To provide for a steady and adequate supply of primary minerals to meet future requirements.</p>	<p>a) To provide for a steady and adequate supply of primary aggregates and industrial minerals by:</p> <ul style="list-style-type: none"> • Identifying sufficient land-won minerals to meet our future needs to 2040 in the Replacement Essex Minerals Local Plan and to maintain appropriate landbanks (having regard to past levels of sales, likely future demand and any future sub-national apportionment requirement, as monitored through the Local Aggregates Assessment and Authority Monitoring Reports). • Participating in the relevant Aggregates Working Party and taking its views into account. • Safeguarding transshipment sites for importing and exporting mineral products in accordance with Strategic Objective 7a.

Aims	Strategic Objectives
<p>6. To protect and enhance the natural, historic and built environment in relation to mineral extraction and associated development.</p>	<p>a) To provide protection from minerals development to designated areas of landscape, biodiversity, geodiversity, cultural and heritage importance, in a manner which is commensurate with their importance.</p> <p>b) To promote the provision of multifunctional green and blue infrastructure and natural capital growth, by securing high quality restoration of extraction sites with appropriate after-care to achieve new after-uses, which are beneficial and enhance the local environment.</p> <p>c) To maintain and/or enhance landscape, biodiversity and residential amenity for people living in proximity to minerals development.</p>
<p>7. To reduce the impact of minerals extraction and associated development on the transport system.</p>	<p>a) To achieve more sustainable patterns of minerals transportation by:</p> <ul style="list-style-type: none"> • Giving preference to identifying local sources of aggregate as close as reasonably possible to growth locations. • Optimising how mineral sites gain access to the strategic road network. • Mitigating the adverse traffic impacts of mineral extraction and associated development by appropriate traffic management measures. • Support the use and availability of rail and water facilities for the long-haul movement of mineral products.

Spatial Priorities for Minerals Development

Role of the strategic priorities

3.3 The strategic priorities in this Plan are designed to deliver the collective Vision and Objectives for the County of Essex set out above and have been prepared to support and encourage sustainable development. They provide the essential framework to ensure that the right amount of minerals development takes place in appropriate locations, and at the right time, whilst respecting the constraints and maximising the opportunities provided by our unique environment. To this end, the Plan will identify Preferred Sites for future development. The strategy provides an investment, delivery and decision-making framework for the minerals industry, our partner local authorities, public bodies, and other interested stakeholders.

Achieving sustainable development

3.4 ‘Sustainable development’ has been defined at many levels. International and national bodies define sustainable development ‘as meeting the needs of the present without compromising the ability of future generations to meet their own needs’. The NPPF contains a ‘presumption in favour of sustainable development’ to ensure that sustainable development is pursued in a positive way.

3.5 The need to achieve sustainable development is a key driver and the policies in the NPPF taken as a whole constitute the Government’s view on what sustainable development in England means in practice for planning. In essence, there are three dimensions to sustainable development, set out in the NPPF, which give rise to the need for planning, and these are all applicable to minerals planning. These three dimensions set out as objectives in the NPPF are social, economic, and environmental.

3.6 For minerals development in Essex, these three dimensions can be broadly interpreted and summarised as follows:

Table 2: Sustainable Mineral Development in Essex

Dimension	Key features
Economic	<p>Safeguarding known sand and gravel, brickearth, brick clay and chalk resources.</p> <p>Safeguarding mineral infrastructure.</p> <p>Making planned provision for a steady supply of aggregates and other minerals to meet identified requirements.</p> <p>Providing an effective county-wide network of mineral extraction sites and related mineral infrastructure.</p> <p>Supporting areas for growth and regeneration, and major development and infrastructure projects with an adequate supply of mineral products.</p>
Social	<p>Ensuring there are adequate reserves available to meet the County's housing, commerce, transport and community infrastructure needs, on which we depend for our way of life.</p> <p>Promoting public health, wellbeing, and safety.</p> <p>Encouraging the people and businesses of Essex to influence decisions on mineral development and shape their communities.</p> <p>Using mineral proposals, site restoration and aftercare schemes to deliver benefits to local communities, including outdoor recreation, environmental assets, biodiversity, green and blue infrastructure, and landscape enhancements.</p>
Environmental	<p>Reducing greenhouse gas emissions by minimising the distance of mineral extraction and mineral infrastructure to markets and adapting to climate change impacts.</p> <p>Promoting the mineral supply hierarchy to reduce the need for the primary extraction of minerals.</p> <p>Minimising the environmental impacts of mineral development and encouraging minerals development to reach high environmental standards.</p> <p>Protecting communities from adverse environmental impacts.</p> <p>Using mineral proposals, site restoration and after-care schemes to deliver positive environmental enhancement and new assets including biodiversity and habitats, green and blue infrastructure, and landscape enhancements.</p>

3.7 This plan applies these three dimensions when guiding development.

Presumption in Favour of Sustainable Development

- 3.8 At the heart of the National Planning Policy Framework (NPPF) is a ‘presumption in favour of sustainable development’, which should be seen as a golden thread running through both plan-making and decision-taking. The wording of the presumption is set out in the NPPF (2023).
- 3.9 The policies in this Plan will deliver what is considered to be sustainable development in Essex.
- 3.10 The strategic policy below has been included to clarify the operational relationship between national policy in the NPPF and this Local Plan. The NPPF is a material consideration in the determination of planning applications.

Policy S1 - Presumption in Favour of Sustainable Development

The Mineral Planning Authority will take a positive approach to minerals development that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework. It will work proactively with applicants to find solutions which mean that proposals can be approved wherever possible, and to secure minerals development that improves the economic, social, and environmental conditions in the area.

Planning applications that accord with the site allocations and policies in this Local Plan will be approved without delay unless material considerations indicate otherwise.

Where there are no policies relevant to the application or relevant policies are demonstrably out-of-date at the time of making the decision, the Mineral Planning Authority will grant permission unless material conditions indicate otherwise – taking into account whether:

- Any adverse impacts of granting planning permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the National Planning Policy Framework taken as a whole; or
- Specific policies in the National Planning Policy Framework indicate that development should be restricted.

Spatial Vision: Policy links to the delivery of vision theme A.

Strategic Objectives: Policy links to the delivery of objectives 1, 1b and 1c.

The Strategy

- 3.11 The Strategy is underpinned by the presumption in favour of sustainable development.
- 3.12 The aim of the spatial strategy is to support key growth areas, reduce mineral miles and secure legacy benefits following mineral extraction. The strategy respects that minerals can only be extracted where they occur and that there are specific localised constraints that would inhibit mineral developments in certain localities. Whilst it is not for the Mineral and Waste Planning Authority to restrict the market that minerals may be sold to, the spatial strategy ensures that the mineral sites as a whole are well placed to serve all of Essex. This is by ensuring an appropriate geographical distribution of allocations, as well as directing mineral traffic onto the main road network as efficiently as possible. It is recognised that mineral extraction typically takes place in rural locations and therefore there will be a need, proactively addressed through policy, to minimise the use of more local road networks, as far as is practicable.
- 3.13 The strategy further requires that larger extraction sites are worked in phases and each phase will begin restoration after the mineral has been extracted. Progressive working and restoration can lessen the overall impact of mineral working on the environment. The phasing and direction of working can also be particularly relevant to minimising the impact on residential and local amenity. It is also important that mineral extraction leads to long-term benefits for the local environment and community following the cessation of mineral working. After-uses will be expected to provide opportunities to enhance the variety and quality of environmental features and increase the wider benefits available to communities. Such benefits could include enhanced recreational opportunities, or priority habitat creation. This Plan requires mineral development applicants to consider the range of benefits that mineral restoration and after-use proposals might deliver, including its on-going stewardship. Green and blue infrastructure strategies and local plan objectives, including those for built development, must be referred to when proposing restoration and after-uses.

The Strategy of the Plan therefore is:

To provide for the best possible geographic dispersal of sand and gravel sites across the County, to support key areas of growth and development, whilst accepting that due to geological factors the majority of mineral extraction will be located in the central and north eastern parts of the County.

To counter geographic imbalance, a focus is placed on minimising mineral miles and ensuring that mineral traffic accesses the main network as efficiently as possible.

Progressive working and restoration is required to reduce the overall impact of mineral working on the environment and minimise the reduction of land in agricultural use. After-uses will provide enhanced variety and quality of life features, and therefore result in long-term benefit to the environment and its

communities. Infilling of the mineral void by waste materials shall only be at a scale considered necessary to achieve a beneficial restoration.

3.14 The strategic priorities to achieve this strategy are set out in Policy S2 below.

Policy S2 - Strategic Priorities for Minerals Development

The strategic priorities for minerals development are focused primarily on meeting the mineral supply needs for Essex, whilst achieving sustainable development.

The Mineral and Waste Planning Authority will promote sustainable development by requiring new development, where relevant, to accord with the following principles:

1. Seeking to ensure that minerals development makes a contribution towards reducing greenhouse gas emissions, is resilient and can demonstrate adaptation to the impacts of climatic change;
2. Ensuring there are no unacceptable adverse impacts arising from proposed minerals development for public health and wellbeing, public safety, amenity, the quality of life of nearby communities, and the environment;
3. Reducing the quantity of minerals used and waste generated through appropriate design and procurement, promoting good practices and encouraging the re-use and the recycling of construction materials containing minerals;
4. Improving access to, and the quality and quantity of, recycled/secondary aggregates, by developing and safeguarding a well distributed County-wide network of aggregate recycling facilities;
5. Safeguarding all known mineral resources of national and local importance so that non-mineral development does not sterilise mineral resources for future use;
6. Maintaining mineral landbanks at required levels across the Plan period by designating site allocations equating to a steady and adequate supply of aggregates and industrial minerals to meet identified national and local mineral needs in Essex.
7. Providing for the best possible geographic dispersal of sand and gravel sites across the County to support areas of growth and development, infrastructure projects and to minimise mineral miles;
8. Ensuring progressive phased working and the high quality restoration of mineral extraction developments, so as to:
 - a) significantly reduce reliance upon the use of landfill materials;
 - b) provide beneficial after-use(s) that secure long lasting community and environmental benefits, including net-gain in biodiversity;

- c) reflect objectives in relevant green and blue infrastructure strategies; and
 - d) protect the best and most versatile agricultural land.
9. Safeguarding transshipment sites within the County to provide appropriate facilities for the importation and exportation of minerals. Primary and secondary processing facilities will also be safeguarded, with safeguarding provisions linked to the length of mineral operations at the host site where relevant. Additional transshipment and recycling capacity will be supported in principle, when proposed in locations that are in conformity with the Development Plan.

Spatial Vision: Policy links to the delivery of all themes.

Strategic Objectives: Policy links to the delivery of all objectives.

Adapting to Climate Change

- 3.15 Climate refers to average weather conditions such as rainfall, temperature and humidity expected at a particular place. In recent years our climate and weather patterns have become more disrupted and unpredictable, and long-term projections suggest further climatic changes.
- 3.16 These include milder and wetter winters and hotter, drier summers. By 2080 sea levels may have risen by 36cm on the Essex coast, altering the physical extent of unprotected coastlines. There are likely to be more frequent severe weather conditions (such as storms, flood events, strong winds and extreme hot or cold temperatures). Drought periods may become more commonplace with implications for the availability of water supplies and impacts on water tables and river levels.

Key Policy Drivers

- 3.17 The key policy drivers to reduce greenhouse gas emissions and build adaptation and resilience to the effects of climate change are the Paris Agreement, the Kyoto Protocol, the Climate Change Act 2008, the UK Low Carbon Transition Plan, the Civil Contingencies Act 2004, the Flood and Water Management Act 2010, the National Planning Policy Framework, the United Nations 17 Sustainable Development Goals, the Environment Act 2021, and local plans. The UK has a statutory target for reducing greenhouse gas emissions to net zero by 2050 (as set out in the Climate Change Act 2008, as amended). The Climate Change Act also sets, through the Sixth Carbon Budget⁷, a further legal target of a 78% reduction in emissions by 2035, which builds upon the commitment to reduce emissions by 68% from 1990 levels by 2030. The Climate Change Committee⁸ warns that the UK is off target and rapid and deep cuts to emissions must be made in all sectors.
- 3.18 Tackling Climate Change is a priority for all tiers of Government in the UK. Whilst not wholly minerals development specific, a target for all planning permissions for new buildings to be net zero carbon by 2025 and carbon positive by 2030 was recommended by the Essex Climate Action Commission (ECAC) in July 2021⁹ and endorsed by Essex County Council (ECC) in November 2021. The ECAC recommendations form the basis of the ECC Climate Action Plan¹⁰ and are relevant to all Essex Local Planning Authorities

⁷ www.gov.uk/guidance/carbon-budgets#setting-of-the-sixth-carbon-budget-2033-2037

⁸ www.theccc.org.uk/wp-content/uploads/2022/06/Progress-in-reducing-emissions-2022-Report-to-Parliament.pdf

⁹ www.essexclimate.org.uk/sites/default/files/DS21_7178%20ECAC_Commission_Report-Final.pdf

¹⁰

www.essex.gov.uk/sites/default/files/migration_data/files/assets.ctfassets.net/41hrw6uXe2g19YxYWkfsk6/eba8f76776738b010f21d3e7f3b9add2/9422_Climate_Action_Plan_Report_v3_-_Digital_Accessible.pdf

(LPAs).” The Essex Design Guide¹¹ also includes sections on climate change either as part of specific interventions or as recommended best practice, and includes an Essex specific net zero evidence base which has been established in collaboration with the Greater Essex local authorities.

- 3.19 Section 19 of Planning and Compulsory Purchase Act 2004 states that ‘Development plan documents must (taken as a whole) include policies designed to secure that the development and use of land in the local planning authority’s area contribute to the mitigation of, and adaptation to, climate change’.
- 3.20 It is vital that Local Plans ensure that new development does not increase vulnerability to the range of impacts arising from climate change and support appropriate measures to ensure the future resilience of communities and infrastructure. The NPPF makes it clear that Local Plans should take a proactive approach to mitigating and adapting to climate change, considering the long-term implications for flood risk, water supply, coastal change, the risk of overheating from rising temperatures, biodiversity, and landscapes. It is however important to note that this Local Plan needs to address these issues as they relate to mineral development and associated impacts only.

How Can Minerals Development Adapt?

- 3.21 Proposals for minerals development should consider the need to reduce greenhouse gas emissions and build-in resilience and adaptability to climate change effects. Possible measures will vary depending on the particular circumstances of each minerals development proposal. Nevertheless, there are a number of key ways that minerals development can respond to climate change issues.
- 3.22 **Greenhouse gas emissions.** Increased emissions contribute to global climate change effects. The increased use of recycled minerals will reduce the amount of minerals development required to support our needs. Minerals development that does come forward, should be located, and designed to help reduce emissions, wherever possible, through good design and fuel efficient and well-maintained processing plant and vehicles. Approaches to mineral safeguarding and reducing the use of minerals, as articulated in other sections of the RMLP, may also mitigate against negative climatic impacts.
- 3.23 All ‘Transport Assessments’ and ‘Transport Statement’ submitted in support of planning applications for minerals development should provide information on the consideration given to the sustainable transport of minerals and to the measures proposed to achieve a significant reduction in emissions to align with climate targets. This may include seeking to reduce the frequency and distance of trips.
- 3.24 **Energy supplies.** The move towards zero-carbon development requires comprehensive monitoring of energy demand and carbon emissions to ensure

¹¹ <https://www.essexdesignguide.co.uk/overarching-themes/climate-change/>

that planning commitments are being delivered. Developers should consider whether the use of renewable and low carbon energy generation on-site is feasible and viable for their mineral development. Proposals may provide the potential to generate electricity to meet some or all of their energy needs, such as through solar panels wind turbines and heat pumps.

- 3.25 Water efficiency.** Where appropriate, mineral site operators should install water efficient plant and utilities, make use of water recycling and storage facilities, and use best practice methods to improve water efficiency. For instance, this includes the use of winter storage reservoirs to ensure a reliable supply of water for mineral washing throughout the summer months.
- 3.26 Sustainable Drainage Systems (SuDS).** In April 2015, Schedule 4 of the Town and Country Planning (Development Management Procedure) (England) Order 2015 was updated to include Lead Local Flood Authorities (LLFAs) as a statutory consultee on all major development with surface water drainage requirements. The appropriate use of SuDS encourages the provision of more sustainable water and drainage systems. This brings potential benefits including reducing water demand, through recycling and re-use, to increasing resilience to flood events, and mitigating flood impacts if they do occur.
- 3.27** Surface water drainage systems should always be designed in accordance with current policy (with regard to both national and local principles and standards) and good practice.
- 3.28 Unexpected climatic events.** Proposals for minerals development should consider the adaptation measures required to deal with the possible impacts of excess heat and drought, storm events and high winds. Site operators should consider the future climate over the lifetime of the development to ensure on-site resilience.
- 3.29 Coastal change.** Historically, mineral developments have been located close to the Essex coast, and some active mineral sites remain located there. Future mineral development close to the coast must have regard to coastal change issues. These include sea level rise, coastal storm events and the risk of coastal flooding, erosion and subsidence. In coastal areas, developers should have regard to the UK Marine Policy Statement, the South East Marine Plan (including the emerging revisions to the South East Marine Plan), Shoreline Management Plans, Coastal Change Management Areas, Strategic Flood Risk Assessments, Thames Estuary 2100 Plan and relevant local plan policy guidance.
- 3.30 Restoration and after-use.** Restoration and after-use schemes for mineral workings provide new opportunities to mitigate and adapt to future climate change. Examples include through the provision of green and blue infrastructure, including flood water storage and resilience measures, biodiversity and habitat creation and the provision of natural landscape features including tree planting. Trees can also act as living carbon sinks. Any feature which absorbs carbon from the atmosphere is known as a carbon sink, acting as a reservoir which can accumulate and store carbon compounds for an indefinite period. Living carbon sinks are natural examples of these, and as well as trees,

include the absorption of carbon dioxide from the atmosphere by other plants and reed beds.

3.31 Consideration of mineral proposals. Proposals for minerals development should demonstrate to the MWPA whether they can contribute towards a reduction in greenhouse gas emissions and provide for resilience and adaptability in responding to the effects of climatic change in line with local and national climate targets. The information supplied and the measures to be incorporated/implemented should be proportionate to the scale and nature of the proposals, such that large-scale mineral proposals will provide more information and be expected to show greater mitigation and adaptation measures than small-scale mineral proposals. Where proposals are subject to the Environmental Impact Assessment (EIA) Regulations, some information regarding climate change will be provided through this procedure, and this need not be duplicated.

3.32 Proposals for minerals development, including extraction and ancillary development, should demonstrate that they have been designed to ensure that any adverse impact on climate change is minimised. Opportunities for reducing non-renewable energy, water consumption and maximising energy efficiency should be considered alongside the reduction of mineral waste, other wastes and waste-water during site construction/preparation and for the lifetime of the development/operations. Mitigating the impacts of climate change by designing measures into schemes to offset greenhouse gas emissions and environmental damage such as, but not exclusively, tree and shrub planting, renewable energy sources, habitat creation/ecological enhancement, biomass crop production and SuDS should also be considered.

Climate Change Statement

3.33 Proposals for all minerals development should include a Climate Change Statement by a competent person, which outlines how the development will support the achievement of national and local climate targets in line with Policy S3. The carbon emissions from the proposed development should be calculated using a nationally recognised whole life-cycle carbon methodology. Applicants should submit details and reasoning of any measures that have been considered and included within the Climate Change Statement, having regard to relevant legislation and guidance.

Policy S3 - Climate Change

Minerals development (including extensions to existing sites) shall incorporate effective measures to minimise greenhouse gas emissions in line with local and national climate targets, and to ensure effective adaptation and resilience to future climatic changes, for the lifetime of the development (including restoration and aftercare), having regard to:

1. Siting, location, design, site operation and transport arrangements;

2. Take account of landform, layout, building orientation, massing, and landscaping to minimise energy consumption, and avoiding solar gain in the summer;
3. On-site renewable, decentralised, and low and zero carbon energy technologies, where feasible and viable, in order to reduce the consumption of energy and natural resources;
4. Minimising greenhouse gas emissions from transport and machinery through the use of low emissions technology;
5. National and local principles/design standards for Sustainable Drainage Systems, including measures to enhance on-site water efficiency and minimise flood impacts both on-site and in relation to adjacent land and ‘downstream’ land-uses;
6. On-site resilience to unexpected climatic events;
7. The implications of coastal change, where relevant;
8. The potential benefits from site restoration and after-use schemes for biodiversity, habitat creation, flood resilience, water supply, countryside enhancement, green and blue infrastructure strategies, the provision of living carbon sinks, resilience to and adaptation to climate change, geological conservation, and the reinstatement of soil resources to provide the highest possible achievable grade of best and most versatile agricultural land; and
9. Restoration that supports sustainable development and will not limit the range of possible satisfactory after-uses in order to secure long term community and environmental benefits.

In addition, all new permanent buildings associated with the development proposals:

- a) Shall be designed and built to be Net Zero Carbon in operation. They shall be ultra low energy buildings, fossil fuel free, and generate renewable energy on-site to at least match annual energy use; and
- b) Shall be designed to be adaptable, facilitate re-use and enable deconstruction (rather than demolition), in order to reduce embodied carbon emissions.

The Mineral Planning Authority will support minerals development that increases the resilience of communities and infrastructure to climate change impacts and is consistent with climate change principles and mandatory requirements.

Spatial Vision: Policy links to the delivery of vision themes C, D and E.

Strategic Objectives: Policy links to the delivery of objective 2a.

Reducing the Use of Mineral Resources

3.34 The Plan is in full adherence with the Minerals Supply Hierarchy and therefore aims to reduce the demand for, and use of, mineral resources by minimising the amount of mineral waste created from the extraction, processing, and transportation of minerals, as well as through the construction process.

3.35 In this regard, the Plan is consistent with:

- **National waste policy and legislation** – This aims to minimise waste in the first instance and then increase the re-use of waste materials. For waste that cannot be re-used, national policy prioritises re-use and recycling followed by treatment and the recovery of value (including energy from waste) in order to divert more waste from landfill, which is to be a last resort. There is also a strong emphasis on planning for net self-sufficiency and managing waste close to its source in waste management.
- **Essex & Southend-on-Sea Waste Local Plan (2017)** – The Approach adopted in the plan is to actively promote waste reduction, the re-use of waste, waste recycling, composting, energy recovery from waste and finally waste disposal in that priority order. The commitment is made to work in partnership with Essex district, borough and city councils, Environment Agency, industrial and commercial organisations and the voluntary sector to minimise the use of raw materials, reduce waste, and re-use and recycle materials.

3.36 Waste policy at the national and local level aims to ensure that as much demolition, construction and excavation waste is re-used or recycled as possible at development/redevelopment sites, in order to provide a supply of recycled mineral products into the future. Ideally, construction waste produced at a redevelopment site will be reused in the new development at the same site.

3.37 These national and local aims are directly relevant to the Plan as they act to both reduce the amount of new primary mineral required but also reduce the volume of inert waste available for the restoration of mineral extraction sites upon the completion of extraction.



- 3.38 Initiatives that promote the sustainable use of primary minerals, including the following:
- Trade association best practice;
 - Building Regulations;
 - Home Quality Mark and the BREEAM building standards;
 - 'Waste and Recycling Action Programme' (WRAP);
 - Aggregate Levy;
 - Landfill Tax; and
 - Environmental Management Standard ISO 14001.
- 3.39 These policy drivers and initiatives collectively promote the minimisation of waste in mineral extraction, processing and transportation, encourage the use of alternative building materials in development and construction as well as providing for the increased use of recycled and secondary materials.
- 3.40 All Essex planning authorities have an important role to play in promoting waste reduction, re-use and recycling, sustainable building design and the use of sustainable materials in development.
- 3.41 To reduce the amount of Construction, Demolition and Excavation (CDE) waste further, all types of development proposals should provide information on how CDE wastes will be reduced, re-used and/or recycled during construction and operation of the development, at an appropriate level of detail as part of a planning application. This requirement for sustainable construction should be addressed and promoted through local plan policies.
- 3.42 Policy S4: Reducing the Use of Mineral Resources applies to all development across Essex and should be applied by all local planning authorities to promote a reduction in mineral use when determining planning applications for housing, commercial and other development in their area. For example, conditions might be imposed on planning consents requiring:
- Construction and deconstruction practices that preserve building materials for future re-use;
 - On-site recycling and re-use of construction, demolition and excavation wastes on redevelopment sites, where this is environmentally acceptable.
- 3.43 All developers have the potential to reduce over-ordering of construction materials and encourage more sustainable construction practices through their own procurement practices.
- 3.44 The policies of the Plan promote the reduction of mineral use by all parties involved in minerals development in Essex, as follows:
- **Mineral sites** – Reducing the volume of mineral waste produced at mineral sites during the extraction, processing, and transportation of mineral products through effective pre-application discussions and the imposition of planning conditions and legal agreements on planning consents;
 - **Redevelopment sites** – Encouraging the re-use and recycling of construction, demolition and excavation wastes on-site;

- **Recycling facilities** – Where on-site recycling is not environmentally acceptable, ensuring developers have access to alternative recycling facilities within reasonable proximity.

On-site re-use and recycling at redevelopment sites

- 3.45 Minerals are a finite natural resource which should be conserved prudently for the benefit of future generations, and they should not be needlessly consumed by unsustainable practices. A key approach to reducing the demand for minerals in new developments is through encouraging and supporting aggregate recycling.
- 3.46 Mobile crushing and screening plant are now commonly used on demolition and construction sites where redevelopment is taking place. The recycled aggregate material produced may be re-used in the new development or used on nearby sites, saving primary aggregates for other higher quality uses. The approach varies between redevelopment sites due to the nature of the previous development, on-site practicality and other environmental constraints.
- 3.47 On-site recycling and re-use is most common in existing urban areas and is considered a major source of recycled aggregates.
- 3.48 The use of mobile plant is strictly controlled and subject to suitable safeguards imposed by the Environment Agency and environmental health departments of local councils. Proposals should not cause unacceptable impacts or harm to neighbouring land-uses by virtue of noise, vibration, dust, light pollution or heavy road traffic.
- 3.49 Essex district, borough and city councils should promote this policy for on-site recycling in their local plans, and in development management decisions on planning applications, where appropriate.
- 3.50 The following strategic policy is designed to increase the rate of aggregate re-use and recycling in Essex and provide the necessary mineral facilities to help achieve these aims. This Policy is complementary to the approach set out above and it is relevant to all developments and district, borough and city local plans.

Policy S4 - Reducing the Use of Mineral Resources

All development proposals shall demonstrate that mineral waste is minimised and that minerals on development/redevelopment sites are re-used and recycled through:

1. The use of best practice in the extraction, processing and transportation of primary minerals to minimise mineral waste;
2. The application of national and local standards for sustainable design and construction in proposed development;

3. The application of procurement policies which promote sustainable design and construction in proposed development; and
4. The maximum possible recovery of minerals from construction, demolition and excavation wastes produced at development or redevelopment sites. This will be promoted by on-site re-use/recycling, or if not environmentally acceptable to do so, through re-use/recycling at other nearby aggregate recycling facilities in proximity to the site.

Spatial Vision: Policy links to the delivery of vision themes A and F.

Strategic Objectives: Policy links to the delivery of objective 4a.

Creating a Network of Aggregate Recycling Facilities and New Transshipment Sites

The importance of aggregate recycling

- 3.51** The sustainable re-use and recycling of CDE waste makes an important contribution to the Essex economy, it ensures a balanced supply of aggregates for the County and helps reduce the amount of re-usable ‘materials’ from being wasted and disposed to landfill. It avoids unnecessary primary mineral extraction and the disturbance that this entails.
- 3.52** The Waste Regulations 2020¹² require waste management authorities to plan on the basis that over time there should be a significant reduction in the amount of CDE waste that is sent for disposal to landfill. This is a key policy driver behind increasing the proportion of CDE waste that must be re-used and recycled. However, it is noted that re-used, recycled and secondary aggregates cannot always remove the need for new land-won and marine dredged aggregates or new industrial mineral supplies.
- 3.53** The County Council, as both the minerals and waste planning authority, positively encourages the re-use and recycling of CDE wastes. It is essential that this Plan enables and encourages the construction industry and minerals industry to provide enough investment in creating and maintaining an effective network of aggregate recycling facilities/sites across the County to meet demand.

Recycled and secondary aggregates

- 3.54** Recycled aggregates are recovered from road, rail, construction and demolition sites and include damaged bricks, broken concrete, brickwork, masonry, spent rail ballast and tarmac. The materials can be recycled to be used in new developments rather than being disposed of in landfill. Aggregate can be recycled to form materials including concrete, brick, plasterboard and ceramic items.
- 3.55** Secondary aggregates are created as a by-product of a construction or industrial process. Examples include power station ash resulting from combustion (fly ash) which can be turned into bricks and cement, and slag from iron smelting which can be manufactured into mineral wool and subsequently used as a heating pipe insulator.

Construction, demolition and excavation waste

- 3.56** Re-used and recycled aggregate forms only part of the Construction, demolition, and excavation (CDE) waste stream. CDE waste is mainly inert material such as

¹² The Waste (Circular Economy) (Amendment) Regulations 2020

concrete, brick rubble and soils. Some of the harder materials can be recovered using mobile crushing plant and screeners, either on the development site itself or at a nearby permitted aggregate recycling facility. Higher quality recycled aggregate can be produced at larger aggregate recycling facilities, where it is more economical to install such processing and washing equipment.

3.57 A small proportion of CDE waste comprises wood, plastics and metals. These can be dealt with at non-hazardous waste management facilities. Policies for these particular waste streams are not included in this Plan but appear in the Essex and Southend-On-Sea Waste Local Plan (2017).

Construction, demolition and excavation waste recycling capacity in Essex

3.58 Successive AMRs show the capacity of existing and dedicated inert waste treatment facilities in Essex. This position is updated through periodic monitoring, as published in the AMR.

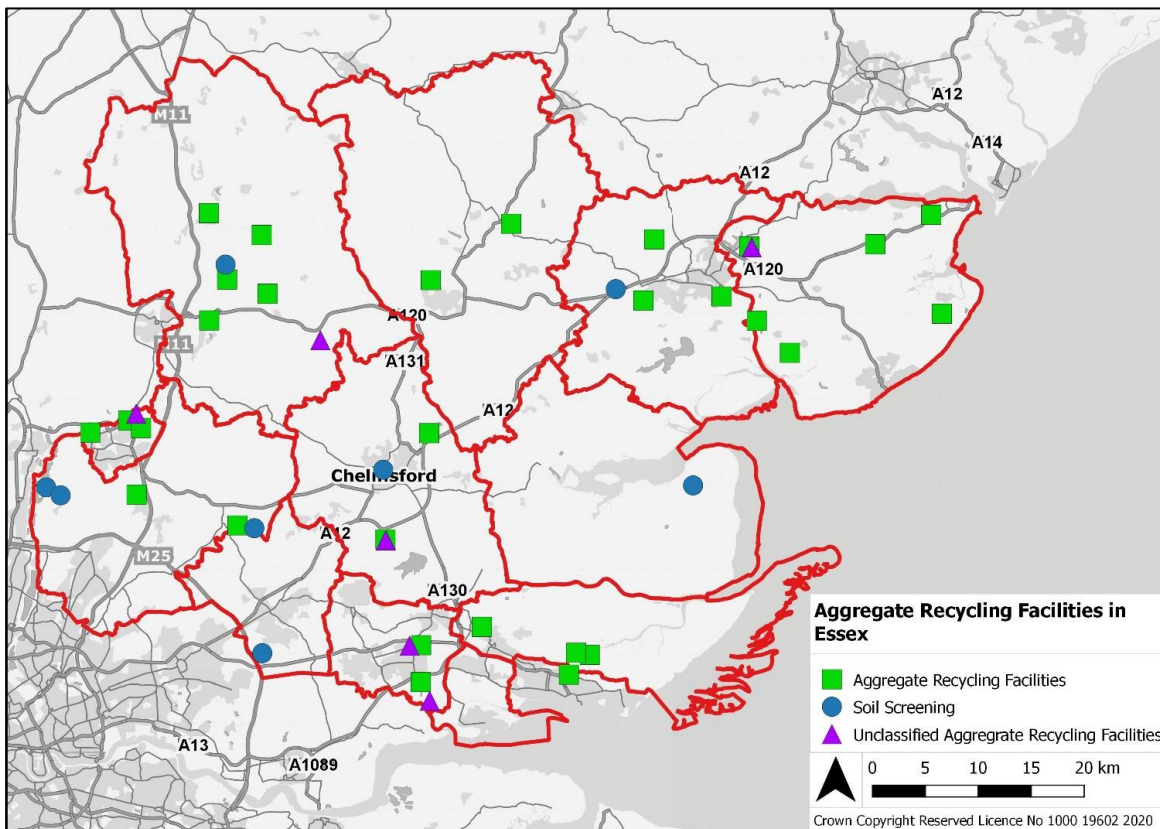
3.59 Unless new permissions are granted for additional CDE recycling facilities, there will be a reduction in the total permitted capacity in CDE recycling facilities during the period up to 2040, as temporary permissions expire.

3.60 Capacity gaps arise when the amount of waste to be managed exceeds the permitted capacity to do so. Capacity is increased through new permissions and reduced when facilities close and temporary permissions expire. The amount of permanent and temporary CDE capacity is monitored and reported on through the Authority Monitoring Report and compared to the CDE waste arising.

Creating and Safeguarding an effective County-wide aggregate recycling network

3.61 The distribution of existing aggregate recycling facilities in Essex is shown in Map 4 below. Some of these facilities are temporary, and many are smaller-scale enterprises only capable of producing a basic product. Most local councils in Essex have some existing aggregate recycling capacity with planning approval.

Map 4: Aggregate Recycling Facilities in Essex



3.62 New and improved facilities will be needed to achieve sufficient aggregates recycling capacity in the County up to 2040, in order to:

- See a reduction in the amount of CDE waste sent to landfill;
- Increase the general availability of recycled aggregate products;
- Ensure high quality aggregate products, which meet industry standards and protocols are produced in sufficient quantity;
- Provide for more certainty for both producers and consumers; and
- Provide a geographic distribution of facilities to support the future strategic pattern of development and growth in Essex up to 2040, having regard to the short distances travelled by CDE waste and the availability of other facilities over the County’s borders.

3.63 The opportunity for the provision of larger, more sophisticated aggregate recycling facilities is considered feasible in areas where the volume of CDE waste arisings will be greatest. This is considered to be where major regeneration/redevelopment is planned and therefore proximity and appropriate road access to major development sites is important.

Future site requirements and approach to safeguarding

3.64 There are broadly two approaches to promoting a County network of aggregate recycling facilities:

- Temporary on-site re-use and recycling at redevelopment sites; and
- The development of bespoke, and likely permanent, aggregate recycling facilities.

On-site re-use and recycling at redevelopment sites

3.65 The use of mobile crushing and screening plant is discussed earlier in relation to Policy S4: Reducing the Use of Mineral Resources, above.

Aggregate recycling facilities

3.66 Aggregate recycling facilities can be particularly important in the local economy as the process has multiple financial beneficial impacts: It reduces the amount of material that must be landfilled, which is subject to tax, and reduces the need for primary extraction as existing material can be re-used.

3.67 Most aggregate recycling facilities have a capacity of less than 100,000 tonnes per annum. These recycling activities typically take place in the open air as smaller-scale operations which are static, dedicated, and with permanent or temporary planning consent. The majority of these sites that are temporary, are located within existing mineral workings and have an end date attached to the end date of either the excavation or restoration of the site.

3.68 This Plan intends to safeguard all existing aggregate recycling facilities in the County, in conformity with the NPPF, through RMLP Policy S9. Any proposals for their expansion, removal or redevelopment for other land-uses is best dealt with on a case by case basis, having regard to Local Plan Reviews or the Development Management process. Detailed local circumstances can then be taken into account with each proposal considered in relation to its individual merits. When proposals are being considered it is important that the development needs of the area are met. It is also important that the MPA focuses development in places that are considered sustainable or can be made sustainable.

General Characteristics of Aggregate Recycling Sites

3.69 Aggregate recycling sites typically demonstrate one or more of the following characteristics:

- A permanent facility, or a temporary facility linked to the end date of the associated development;
- Of sufficient size to accommodate a washing plant, in addition to a crushing and screening plant, with dedicated storage areas for feed waste, processing plant and stockpiles of raw and processed material;
- Located in proximity to growth areas in the County, which are expected to generate the majority of future CDE waste arisings during the plan-period, and be the focus of the Essex market for recycled aggregate products;
- Compatible with existing and permitted neighbouring land-uses, so there

are no issues of noise, vibration, pollution, disturbance, loss of amenity or serious adverse environmental impact;

- With good road connections to the main road network in the County, and/or with access to rail or waterborne transport, for the receipt of CDE waste and subsequent distribution of recycled products.

3.70 The continuation of a temporary permission would be subject to a planning application being in conformity with the Development Plan.

3.71 It is often difficult to find suitable sites for aggregate recycling activities should they cease and the facilities have to be replaced with capacity elsewhere. Each facility makes a contribution to aggregate recycling capacity in the County and the availability of quality recycled products. Therefore, the Plan intends that all facilities should be positively safeguarded to protect their current purpose wherever possible. Re-development for non-mineral development on safeguarded sites should only be approved in exceptional circumstances.

3.72 Having regard to the implementation of CDE/aggregate recycling targets the background evidence points to a need for the provision of more aggregate recycling sites in the County during the plan-period to 2040. This Plan considers that aggregate recycling sites would be most appropriately located:

- Within permanent waste management sites;
- In commercial areas used for general industrial or storage purposes (subject to compatibility with existing neighbouring land-uses);
- On previously developed land;
- At mineral extraction sites (on a temporary basis in conformity with the Development Plan);
- At landfill sites (on a temporary basis in conformity with the Development Plan);
- Within major planned development areas.

Mineral transshipment sites

3.73 Mineral transshipment sites provide for the movement of minerals over long distances by road and rail so offer a more sustainable transport option than the road network. Essex has a number of rail depots although there are no marine wharves handling minerals currently in Essex. Policy S5 allows the Plan to respond to any such proposals to increase transshipment capacity that may be submitted in the future.

3.74 Essex has no deposits of hard rock, so it relies on imported supplies to serve the County's needs. Most imported mineral comes from the East Midlands and South West regions, and the existing mineral infrastructure that makes this importation possible is a vital feature of the County's mineral supply network. The MWPA will continue to establish, as far as it is able, that these imported supplies will continue to arrive through the plan period.

3.75 A proportion of the sand and gravel produced in Essex will continue to be

exported for use elsewhere, particularly in London, the East of England and the South East. Given the proximity of London – a large consumer with limited indigenous supplies of its own – aggregates produced in Essex will serve this market and beyond for the foreseeable future.

The Plan-led approach to locating mineral infrastructure

3.76 The Waste Local Plan (2017) contains information relating to CDE arisings and management capacity. It would therefore be inappropriate for this Plan to set a numerical policy target for aggregate recycling capacity in the County during the plan-period of this RMLP, or to identify any site-specific proposals for new aggregate recycling facilities. With there being no marine wharfs in Essex, and their development requiring significant private investment outside of the control of the MWPA, it would also not be appropriate to set a numerical policy target or allocate sites for such facilities in the absence of any interest to develop such facilities. The broad approach of this Plan is to:

- Safeguard the County’s existing network of aggregate recycling sites from redevelopment for non-minerals development to maintain their aggregate recycling capacity into the future, and
- Set out positive policy criteria to enable developers to bring forward proposals for new aggregate recycling sites and wharfs in appropriate locations in response to the market.

3.77 The NPPF states that all existing, planned, and potential sites for the bulk transport, handling and processing of minerals, the manufacture of concrete and concrete products, and the handling, processing and distribution of substitute; recycled and secondary aggregate material, are to be safeguarded. All mineral infrastructure safeguarding considerations are addressed by RMLP Policy S9 and its supporting text

3.78 Proposals for new aggregate recycling sites and new transshipment sites, should not be located where they would cause unacceptable impacts or harm to neighbouring land-uses by virtue of noise, vibration, dust, light pollution, or heavy road traffic. Given the volume of material being handled and the heavy vehicle traffic associated with this activity, proposals would need to be well located in relation to the main road network to minimise road traffic impacts.

Policy S5 - Creating a Network of Aggregate Recycling Facilities and New Transshipment Sites

1) Aggregate Recycling Facilities

The increased production and supply of recycled/secondary aggregates in the County is supported to reduce reliance on land-won and marine-won primary aggregates.

All aggregate recycling sites will be safeguarded from development that might result in their closure earlier than their permission expires. There is a general presumption

that existing aggregate recycling sites shall remain in operation for the life of the permission, and will be safeguarded accordingly.

Where intended to be permanent, proposals for new aggregate recycling facilities shall be located in proximity to the main road network and not cause any unacceptable highway impact. Such proposals shall be permitted in the following preferred locations, when the proposal is environmentally suitable and sustainable:

- a) on demolition and construction sites (on a temporary basis);
- b) within permanent waste management sites;
- c) in commercial areas used for general industrial or storage purposes, subject to compatibility with neighbouring land-uses;
- d) on previously developed land;
- e) on current mineral workings and landfill sites, provided the development does not unduly prejudice the agreed restoration timescale for the site and the use ceases prior to the completion of the site.

2) New Transshipment Sites

- a) New wharf and rail depot development will be supported where it:
- b) has a connection to the road network rail network, or access to water of sufficient depth, to accommodate the vessels likely to be used; and
- c) demonstrates, in line with the other Policies in this Plan, that proposals do not pose unacceptable harm to the environment and local amenity.

Spatial Vision: Policy links to the delivery of vision theme F.

Strategic Objectives: Policy links to the delivery of objective 4a.

Provision of Primary Minerals

3.79 The MPA is required to plan for a steady and adequate supply of aggregates. This Plan provides the framework for identifying mineral sites to meet these requirements and the landbank provides the mechanism for securing and maintaining mineral supplies at the County level. Landbanks work by reflecting the time taken to obtain planning permissions and bring sites into production. The extent of the landbank provides a useful indicator for deciding when new permissions for extraction are required.

National policy on landbanks

3.80 A 'landbank' is a current stock of permitted mineral reserves with planning permission for extraction. The size of a landbank is measured in terms of a number of years. It is calculated by working out:

- The total capacity (in tonnes) of all permitted mineral reserves with planning permission; and then,
- Dividing this total capacity by the annual rate of mineral supply provision (in tonnes per year) proposed in this Plan for the plan-period; and then,
- Expressing this calculated figure in terms of years' equivalent.

3.81 Policies providing for the maintenance of sufficient landbanks are an important feature of this Plan. They enable the minerals industry to respond to changes in market demand and also provide a secure long-term, steady and adequate supply of permitted mineral reserves to justify capital investment in plant, machinery and manufacturing capacity. They also enable the wider planning and environmental consequences of long-term provision to be considered in an orderly, timely and effective way through periodic reviews of this Plan.

3.82 The NPPF provides instruction on the minimum length of sand and gravel landbanks, as follows:

- At least a seven-year landbank for sand and gravel, ensuring that the capacity of operations to supply a wide range of materials is not compromised. Longer periods may be appropriate to take account of the need to supply a range of aggregates, locations of permitted reserves relative to markets and productive capacity of permitted sites.
- Ensuring that large landbanks bound up in very few sites do not stifle market competition.



The Plan's approach to landbanks

- 3.83 The Plan maintains a single County-wide landbank of at least seven years for sand and gravel based on plan provision up to 2040. It is considered unnecessary and impractical to maintain separate landbanks for County sub-areas or to distinguish between building sand and concreting aggregates.
- 3.84 Planning permissions secured on the sites allocated in this Plan will increase the permitted landbank which otherwise decreases through sales of aggregate.
- 3.85 The Plan will be monitored annually and reviewed every five years to ensure that the Essex sand and gravel landbank is maintained to at least seven years throughout the plan period to 2040. The results will be published through the Authority Monitoring Report (AMR) and annual Local Aggregate Assessment (LAA), which includes a rolling ten-year average assessment of sand and gravel sales. A second trigger is also in place; should the AMR show that minimum landbanks are not being maintained (of at least seven years for sand and gravel, ten years for silica sand or 25 years for brick clay – see Policy S7), the MWPA will explicitly consider whether an early review of the RMLP is required outside of the five year cycle, or whether there are mitigating circumstances that account for the landbank drop, and publish the conclusion in the AMR.

National guidelines on aggregate supply provision

- 3.86 The NPPF requires the MWPA to plan for a steady and adequate supply of aggregates by:
- Preparing an annual 'Local Aggregate Assessment' based on a rolling average of ten-years sales data and other relevant local information, and an

assessment of all supply options (including marine dredged, secondary and recycled sources),

- Taking part in the operation of the relevant Aggregate Working Party (East of England AWP) and taking the advice of the Working Party into account when preparing the Local Aggregate Assessment,
- Making provision for land-won and other elements of the Local Aggregate Assessment in the Minerals Local Plan, having taken into account the advice of the Aggregate Working Party and the National Aggregate Coordinating Group,
- Taking account of the latest published National and Sub-National Guidelines on future provision and using this guideline when planning for future aggregate demand and supply.

Land Won Sand and Gravel Sales

3.87 Information on aggregate sales is co-ordinated on an annual basis for all MWPAs in the East of England by the East of England Aggregates Working Party (EoEAWP), and this information is included in individual MWPA Authority Monitoring Reports and Local Aggregate Assessments.

Plan provision for future sand and gravel extraction

3.88 The RMLP Topic Paper 'Forecasting the Need for Mineral Provision in Essex 2025-2040' sets out the NPPF-derived methodologies for the provision of the five extracted mineral types in Essex. Through application of these established methodologies, the paper then quantifies the provision requirements for each of these minerals across the plan period. For these calculations, 'provision' is synonymous with 'need' and 'sales' i.e. the Plan is required to provide for a provision rate which equates to the need for that mineral, with itself equates to the sales of that mineral.

3.89 With respect to sand and gravel, planning policy requires an average of the last ten years of sales to be the basis for the sand and gravel provision calculation. Subsequently, an assessment of whether other factors justify an increase or decrease of this base rate is undertaken to ensure that there will be a 'steady and adequate supply' across the Plan period. The provision paper concludes that a proportional uplift of 20% is required to the base provision rate, primarily to accommodate the forecasted rise in housing provision set out in adopted and emerging district local plans. This results in a provision rate of sand and gravel of 3.98mtpa, or a need for 59.7mt of sand and gravel across the 15-year plan period.

3.90 To further increase plan flexibility, and in light of the NPPF requirement to maintain a landbank of seven years, the provision paper concludes that an additional seven years of provision should be made, such that the landbank at the end of 2040, assuming mineral is extracted at the provision rate of 3.98mtpa, is seven years. This increases the provision to be made through allocations to 87.56mt.

3.91 This total does not, however, account for the existing sand and gravel reserves in the County, as it is not the case that the County will have zero reserves at the point of Plan adoption. The amount of provision actually required is the total amount needed to satisfy a Plan period of 15-years (plus seven years at the end of the plan period to maintain an adequate landbank), based on a provision rate of 3.98mtpa (87.56mt), minus the amount forecasted to remain in reserve at the anticipated Plan adoption date of 2025. The provision paper sets out a number of scenarios for forecasting the volume of permitted reserves in 2025 ahead of forecasting this permitted reserve value to be 22.95mt. This value is to be subtracted from the total identified need of 87.56mt.

Therefore, to ensure a steady and adequate supply of sand and gravel across the Plan period, the Plan needs to identify an additional 64.56mt of sand and gravel through new site allocations in order to satisfy the forecasted provision (sales) rate of 3.98mtpa.



Self-sufficiency of the County

3.92 The majority of sand and gravel extracted within the County will serve the local Essex market and this is considered unlikely to significantly change over the long-term, should current rates of import remain stable. Under this scenario, the main economic drivers of future production will be the mineral demands created by development, including new significant infrastructure projects in Essex, and the ongoing need for building and infrastructure maintenance and repair. The LAA monitors mineral import and export information on an annual basis at the Greater Essex level.

Links with neighbours

- 3.93 Essex's strategic location to the north-east of London means that there will always be some market demand for the County's mineral resources from neighbouring areas. Essex also imports both land won and marine sourced sand and gravel, as well as crushed rock, and as such it is important that our current links can be maintained.
- 3.94 The Greater London conurbation is highly urbanised and relies on imported minerals for its development, growth and regeneration and this will likely continue into the future. The capital will continue to rely on imported aggregates delivered by sustainable transport modes (rail and water). Inter-regional movements have already been accounted for in the sand and gravel provision made in this Plan.
- 3.95 London is likely to be heavily dependent on marine aggregate supplies to meet its aggregate requirements, particularly as marine aggregate can be shipped directly into wharf facilities within London. The Local Aggregate Assessment and data received from the British Geological Survey will allow for the monitoring of sales of sand and gravel within Essex to ascertain whether sales begin to reduce as a result of an increase in usage of aggregate sourced from the marine environment elsewhere based on marine aggregate landings in London.
- 3.96 The members of EoEAWP, of which Essex and all the other Mineral Planning Authorities within the former East of England region are a part, recognise that there will be some cross-boundary movement of mineral supply as this is the nature of the market. EoEAWP provides an effective forum for ensuring the ongoing cooperation of participant authorities, industry and other stakeholders such as the Marine Management Organisation and the Environment Agency, in addition to being a forum for the formal Duty to Cooperate process.

MPA consideration of non-allocated sites

- 3.97 To ensure future sand and gravel extraction is clearly focused on the Spatial Strategy and the identified Allocated Sites in this Plan, other proposals for sand and gravel extraction at locations situated outside of the areas identified for future working will normally be resisted by the MWPA unless there is an 'over-riding justification' and/or 'over-riding benefit' as set out in Policy S6.
- 3.98 A potential overriding justification or benefit for mineral extraction on these non-allocated sites may include, but is not limited to:
- Agricultural irrigation reservoirs – where mineral is extracted and exported to create the reservoir landform;
 - Borrow pits – where extraction takes place over a limited period for the exclusive use of a specific construction project, such as for a specific road scheme;
 - Prior extraction to prevent mineral sterilisation – this may be required on occasions where non-mineral development takes place on mineral bearing

land, as defined through a safeguarding designation that meets the safeguarding triggers set out in Table 3 and is defined as ‘Included’ development through Table 6. Qualifying non-mineral developments are subject to the provisions of Policy S8. This policy aims to avoid the unnecessary loss of a finite, workable mineral resource that could otherwise be permanently lost through sterilisation.

- 3.99 Such proposals containing an over-riding justification’ and/or ‘over-riding benefit’ for extracting outside of allocated sites will be considered on their own individual merits. The MWPA will pay particular regard to the justification/need that is cited by applicants when determining planning applications. The MWPA must be satisfied that there are exceptional reasons for permitting such applications, after having considered all the relevant circumstances, so as not to prejudice the overall Plan provision strategy of the document. All proposals will be considered against policies in the Development Plan and permissions granted on this basis will potentially be conditioned. For example, agricultural irrigation reservoir proposals involving extraction and exportation may be granted permission but clauses may be imposed to ensure that the after-use is restricted for agricultural use.
- 3.100 Where proposals are put forward on non-allocated sites on the basis of fulfilling some form of ‘mineral need’ for minerals extraction, then the MWPA will always require consideration of the whole of the County’s need for the purposes of estimating the adequacy of the landbank or the sufficiency of the Plan’s provision. The MWPA does not consider that information relating to the individual commercial business needs of a mineral operator to continue production at a particular mineral extraction site to be relevant or material to its decisions in respect of non-allocated sites.
- 3.101 No allowance for non-allocated sites coming forward has been made in determining the Plan’s provision up to 2040. This is because the location, timing and quantity of these sites cannot be predicted, and they would therefore not normally contribute to meeting the spatial strategy, which is central to this Plan.
- 3.102 A plan-led approach excluding such an allowance and identifying Preferred Sites for allocation also provides greater certainty for local communities and the minerals industry about where minerals development will take place over the long-term. The Plan will however be reviewed at regular intervals and as such the emergence of any non-allocated sites will be taken account of through their impact on the landbank and the future need for minerals as the Plan is updated.

Policy S6 - General Principles for Sand and Gravel Provision

The Mineral Planning Authority shall endeavour to ensure reserves of land won sand and gravel are available until 2040, sufficient for at least seven years extraction or such other period as set out in national policy. The plan requirement is set at 3.98mtpa.

Mineral extraction outside Allocated Sites will be supported by the Mineral Planning Authority providing the applicant can demonstrate:

- a) An overriding justification and/or overriding benefit for the proposed extraction and;
- b) The proposal is environmentally suitable, sustainable, and consistent with the relevant policies set out in the Development Plan.
- c) Where mineral extraction is ancillary to another development, except in the case of prior extraction to avoid sterilisation, the scale of the extraction is no more than the minimum essential for the purpose of the proposal.

Spatial Vision: Policy links to the delivery of vision theme B.

Strategic Objectives: Policy links to the delivery of objective 6a.

Plan Provision for Other Minerals

Silica sand

3.103 Silica sand is extracted at one site in Essex at Martells Quarry from the raw material in Ardleigh. The NPPF requires the maintenance of at least a ten-year landbank to safeguard investment and continued production at existing silica sand extraction sites. Current forecasts demonstrate that there is an unfulfilled need for silica sand. Policy S7 allows this Plan to respond appropriately in the future to any market interest in additional silica sand extraction.

Brick clay

3.104 Brick clay is extracted at two sites in the County, namely Bulmer Brickfield and Marks Tey. It is important that an adequate and steady supply of brick making clay remains available to support development in the County and preserve its heritage assets. As such, the NPPF requires that the MWPA must take account of the need for provision of brick clay from a number of different sources to enable appropriate blends to be made.

3.105 The NPPF further requires the maintenance of at least a 25-year landbank at both sites.

3.106 Both Marks Tey and Bulmer Brickworks were granted permissions prior to the adoption of this Plan to extract sufficient reserves to support the level of investment to maintain extraction (at the current rates) beyond the Plan period. As such, no further provision is currently planned for over the period covered by this Plan.

Brickearth

3.107 There is no extraction of brickearth within the County at the present time, but there is no compelling reason why it could not be extracted economically at some point in the future. The Plan does not make any site-specific allocations for this mineral.

Chalk

3.108 Chalk is currently extracted at only one site in Essex, in the form of white chalk at Newport Quarry, for agricultural and pharmaceutical purposes. There is only limited interest in chalk extraction in the County and there is no national policy requirement to maintain a landbank for this type of mineral, as it is not extracted as an industrial mineral in Essex. The Plan does not make any site-specific proposals for this mineral to be extracted.

3.109 Although this existing chalk extraction site in Essex is considered to be sufficient to meet current and future demand, new proposals for the small-scale

extraction of chalk may still be promoted during the plan-period. Therefore, a policy framework that allows planning applications to be considered on their individual merits is still necessary.

Conclusion

3.110 Proposals for the extraction of other minerals in the County – silica sand, brick clay, brickearth, and chalk – may come forward on other ‘non-allocated sites’ during the plan period. Such proposals will be considered on their own individual merits, having regard to the economic need for the mineral concerned and the relevant policies in this Plan. Policy S7 allows this Plan to respond appropriately in the future to any additional market interest in additional extraction sites for these three minerals.

Policy S7 - Provision for Industrial Minerals

The MPA will seek to maintain a silica sand landbank of at least ten years, and a brick clay landbank of at least 25 years.

Chalk extraction will be supported in principle, where there is a justification or benefit for the release of the site. The MPA will seek to maintain a landbank of at least 15 years for chalk when used as cement primary (chalk and limestone), or at least 25 years for cement primary to support a new kiln.

Brickearth extraction will be supported in principle where there is a justification or benefit for the release of the site. The MPA will seek to maintain a landbank of at least 25 years for brickearth.

Proposals for the extraction of industrial minerals on non-allocated sites will be permitted where:

- The reserves comprising the landbank are insufficient and/or there is some other over-riding justification or benefit for the release of the site;
- The proposal would be environmentally acceptable, and
- The proposal is environmentally suitable and sustainable.

Spatial Vision: Policy links to the delivery of vision theme B.

Strategic Objectives: Policy links to the delivery of objective 6a.

Policy S8 - Safeguarding Mineral Resources and Avoiding their Sterilisation

Minerals of National and Local Importance in Essex

3.111 Minerals are a finite natural resource and essential for the delivery of the infrastructure, buildings, energy, and goods that the country needs. They must be used prudently and conserved so that there are adequate resources for future generations. 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.

Sterilisation of Minerals

3.112 'Mineral 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:

- Best use can be made of minerals to secure their long-term conservation for future generations.
- Mineral resources of local and national importance are not sterilised by non-mineral development where prior extraction is practical and environmentally feasible.
- The need for the allocation of new mineral sites is decreased through a reduction in the amount of mineral effectively lost under permanent built development in cases where land is being developed in any event.

Mineral Safeguarding Areas

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

3.114 The NPPF requires MWPA's to define 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. The MWPA should be consulted by Essex district/borough/city councils regarding all development proposals within MSAs that meet the thresholds in Table 3 and are not otherwise excluded by virtue of Table 6.

3.115 Land containing sand and gravel, silica sand, chalk, brickearth and brick clay are where MSAs are required to be designated in Essex as they have the potential to contain a workable resource with a market use. The British

Geological Survey (BGS) provide the best available geological information on the broad extent of these mineral resources in Essex. The spatial extent of these minerals has been deduced from the latest information available, which at this time is the BGS Digital Mineral Resource V3 data-set. This was then used to define the Mineral Safeguarding Areas associated with sand and gravel, chalk, brickearth and brick clay.

- 3.116 The BGS Mineral Assessment Reports 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.
- 3.117 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, by definition, at least locally important.
- 3.118 The purpose of MSAs is to ensure that mineral resources are adequately and effectively considered in land-use planning decisions such that the sterilisation of resources that are of national and local importance, and which are environmentally feasible and practical to extract, does not unnecessarily occur. As such, the MWPA will normally object to development that would sterilise resources contrary to these principles.
- 3.119 Proposed site allocations within an MSA meeting the appropriate threshold set out below should trigger discussions with the MWPA 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.
- 3.120 As stated above, land covered by an MSA designation is considered to potentially hold a mineral of at least local importance by virtue of the land being designated as an MSA. However, the true extent of safeguarded resources does need to be tested through more localised exploration, and this safeguarding policy does not 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 MSAs if it might constrain potential future use for mineral working.
- 3.121 Where issues of environmental feasibility are raised, since built development would follow any prior extraction, mitigation measures that make the primary non-mineral 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 is to be made is through a Minerals Resource Assessment, as discussed below.

- 3.122 Unless excluded by virtue of Table 6, non-mineral development proposals of any size which have the potential to sterilise mineral within a MSA will be expected to justify why sterilisation is warranted as part of supporting information. The determining authority should also address this matter as part of its determination, whether approval is granted or not.
- 3.123 A Minerals Resource Assessment (MRA) and consultation with the MWPA will be required for applications for ‘included development’¹³ made within an MSA where the relevant threshold of Table 3 is triggered by that 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 the mineral present and how that influences the practicality and environmental feasibility of its prior-extraction. MRAs are discussed in more detail below. A schedule of general information to inform a MRA is set out in Table 7 and should be tailored as relevant to the application in hand.
- 3.124 The following MSAs and consultation thresholds have been established:

¹³ As set out in Table 6

Table 3: Definitions and Thresholds of Mineral Safeguarding Areas

Mineral Type	Geographic Definition of MSA Extent	Consultation Threshold Requiring MRA
Sand & Gravel (including silica sand)	All glacial sand and gravel resources, glaciofluvial sand and gravel resources and river terrace deposits as identified from BGS Digital Mineral Resource Data.	Where the proposed area of the non-minerals development* plus a buffer zone of 100m around the site area covers more than 5ha in a sand and gravel MSA.
Brickearth and Brick Clay	<p>The boundaries have been set by BGS Digital Mineral Resource Data.</p> <p>Brick Clay and Brickearth are terms that have been used interchangeably in the past.</p> <p>Specifically, Brickearth is a term used to describe a specific material used to make bricks comprised of the silty clays associated with sandy gravels around the Thames Estuary.</p> <p>Brick Clay is more of a generic term for any clays that can be used for the production of bricks (and similar products such as tiles and pipes).</p> <p>Brickearth and Brick Clay resources have been distinguished separately in the key of the MSA maps. The difference between them is the type of bricks that can be produced. This merits separation of the MSAs due to the importance of brick supply from the two discreet geological units within Essex.</p>	Where the proposed area of the non-minerals development* plus a buffer zone of 100m around the site area covers more than the equivalent area of one-dwelling in a brick clay/brickearth MSA.
Chalk	<p>Only higher purity (upper chalk) is currently worked, and only one mineral resource area has been identified (predominantly in Uttlesford district).</p> <p>Where the chalk is overlain by Quaternary clays and silts, these have been discounted as a resource and removed from the BGS Digital Mineral Resource Data. It is unlikely that these low value resources would be extracted where significant amounts of overburden are required to be removed.</p>	Where the proposed area of the non-minerals development* plus a buffer zone of 100m around the site area covers more than 3ha in the chalk MSA.

* Unless defined as Excluded in Table 6 of this Plan.

3.125 The area of land potentially sterilised by a non-mineral development for the purposes of requiring a MRA to be carried out is calculated as the area of land

subject to the planning application, and land up to 100m from the application site which is within an MSA expressed in hectares. As set out below, the justification for a buffer around the application site is that non-mineral development sterilises not just the land that it is immediately built on, but also land surrounding the application site as mineral extraction cannot take place right up to the boundary of potentially sensitive non-mineral development. The MWPA is proposing a buffer of 100m around each non-minerals application to accommodate this. As set out below, the MWPA notes that mineral extraction is not automatically precluded within 100m of existing development, but this is a reasonable figure to apply as part of a proportionate, desk-based assessment approach to mineral sterilisation.

- 3.126 The consultation threshold for non-mineral development within a MSA requiring a Mineral Resource Assessment (MRA) represents a reasonable threshold for the prior extraction of mineral ahead of non-mineral development taking place to potentially be practical. The MWPA 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 do not have a reasonable potential of being practical to prior extract. The determining authority should however consider whether the sterilisation of minerals is justified as part of the planning balance even when the MRA threshold in Table 3 is not met.
- 3.127 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 in their own Policies Maps.
- 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 safeguarding. Table 6 sets out the types of planning applications or proposals within MSAs for which it is not required to consult the MWPA. It follows that safeguarding policy should be applied to all development proposals in MSAs which are not defined as being excluded by the Appendix. It is reiterated that safeguarding provisions should still feature in the planning balance applied by the determining authority even if the MRA consultation threshold is not met.
- 3.129 When considering the weight to be given to safeguarding mineral resources as part of the planning balance, it is important to consider the non-mineral application in the context of proximal MSAs. MSAs can be many times greater than the application site proposed within them, and an application for mineral extraction can be many times greater than a housing application. Mineral underlying a non-mineral development may be a viable resource where it is able to be extracted on a scale more representative of a mineral development. Mineral MSAs are designed not only to require the consideration of the mineral below the non-mineral site, but also bring awareness to the piecemeal loss of larger mineral deposits that could be potentially workable in the future on a scale more reflective of mineral development. To ensure that piecemeal loss of finite resources are appropriately factored into the planning balance, where an assessment is made of whether the non-mineral development might constrain potential future use for mineral working, this is to be assessed as part of the

wider MSA within which the land pertaining to the application sits within, and not the application site in isolation.

Mineral Consultation Areas

- 3.130** The extraction of minerals may create impacts on their immediate surroundings and local communities through, for example, vehicle movements and dust or noise emissions. 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, food processing, painting and furnishing. 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 to that mineral bearing land, if prior extraction is not undertaken.
- 3.131** It is therefore necessary to safeguard land in proximity to the MSA to prevent the possibility of new incompatible neighbours being established and ultimately restricting future mineral extraction opportunities. Proposed development (even a single dwelling) on the edge of, or in proximity to, 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. The NPPF requires that MPAs define Mineral Consultation Areas (MCAs) to address this potential issue.
- 3.132** Planning Practice Guidance further requires that these MCAs are based on MSAs. The MWPA has therefore designated land within 100m of the boundary of the MSA as an MCA. This reflects a typical minimum distance that the MWPA 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, the MWPA have adopted a pragmatic approach when designating MCAs, due in part to the spatial extent of mineral resources in the county and the need to take a proportionate approach as part of the planning balance. It is considered that 100m represents an appropriate balance for the purposes of designating the MCAs. Land designated as an MCA is shown on the Policies Map.
- 3.133** Proposed site allocations within an MCA that have the potential to sterilise land within an MSA that meet the thresholds set out in Table 3 should trigger discussions with the MWPA 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.
- 3.134** Where the 100m buffer applied to the application site intersects with the MCA but does not intersect with the MSA, this means that the application site itself is

not within 100m of a safeguarded resource. In these instances, safeguarding provisions are not required to be applied.

3.135 Regarding applications for development, unless excluded by virtue of Table 6, 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 determining authority should address this matter when the non-minerals development is considered.

3.136 Where sites come forward in an MCA with the potential to sterilise land in an MSA equal or greater to the relevant threshold in Table 3, and are designated as included development in Table 6, then 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. Where mineral sterilisation is not considered to be practical and/or environmentally feasible 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. Such evidence should be based on the information schedule for Mineral Resource Assessments as set out in Table 7, tailored as relevant to the application in hand. The MWPA 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.

3.137 The MWPA should be consulted regarding all development proposals within MCAs that meet the thresholds for MRA. It is reiterated that safeguarding provisions should still feature in the planning balance applied by the determining authority even if the MRA consultation threshold is not met.

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

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

3.139 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 MWPA when local planning decisions are made. Consultation with the MWPA is only required when the proposed non-mineral development exceeds those thresholds set out in Table 3. Please see the summary table below and [Appendix Two](#) for more details around the operation of Policy S8.

Table 4: Consultation Test for the Application of Policy S8

Scenario	Application of Safeguarding Policy
Application site plus 100m buffer exceeds Table 3 threshold*.	MRA required and MWPA to be consulted.
Application site plus 100m buffer does not exceed Table 3 threshold* but includes land within MSA.	Determining authority to consider mineral sterilisation as part of the planning balance. MWPA do not need to be consulted.
Application site plus 100m buffer does not exceed Table 3 threshold*, includes land within MCA but not in MSA	Application site is over 100m from safeguarded resource so policy not relevant to application determination.
Application site plus 100m buffer does not fall within land designated as a MSA or MCA	Policy not relevant to application determination.

* Threshold, e.g. 5ha for sand and gravel, is the sum of land covered by the application site plus a 100m buffer around the red line boundary. Threshold only applies for development not specifically excluded by Table 6

Mineral Resource Assessments

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

- which meet the sterilisation thresholds set out in Table 3, and
- are not defined as ‘excluded development’ under Table 6.

3.141 are required to include a Minerals Resource Assessment (MRA) as part of its evidence base to assess the practicality and environmental feasibility of the prior extraction of mineral ahead of the primary development such that mineral resources are not sterilised where this is unnecessary.

3.142 Where these tests are met, whether it be development proposed through the preparation of a DPD, Masterplan or planning application, the need for an MRA is expected to form part of early engagement, including pre-application discussions, between the relevant LPA, the prospective developer and/or the MWPA as relevant. The MWPA requires an MRA to be undertaken as soon as practical and for it to demonstrate that it was prepared at such a time that there was at least the potential for it to have shaped and informed the early stages of the design of the proposed development. The need for an MRA should be included in the Validation Checklist of each LPA and therefore be submitted as part of the evidence base of qualifying applications. The MRA should be informed by the general information set out in Table 7 to the extent relevant to the application as well as any previous engagement.

3.143 Safeguarding and prior extraction is described in the NPPF as being a conservation measure and therefore the mineral resources safeguarded through this designation should be seen as a constraint on development that should be positively addressed in a similar manner to any other conservation

measure. That is to say that there should be a record in the MRA of how the design of the proposed development sought to reduce or avoid impact on the safeguarded resource, even when prior extraction is not practical. The MRA itself should include when and how mineral safeguarding matters were assessed as part of the design of the proposed development. As set out above, this would be expected to be completed prior to the finalisation of the applied-for development such that the conclusions of the MRA would be able to guide the design of that development.

- 3.144 The MWPA 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 MWPA with regards to the scope and requirement for an MRA as well as when planning a schedule of borehole locations. Please see Appendix 2 for further details regarding the application of Policy S8 and the schedule of requirements for MRAs in Table 7.
- 3.145 As previously mentioned, the role of the MRA is to conclude on the practicality and environmental feasibility of prior extraction ahead of the implementation of the non-mineral development. When making these conclusions, it is important to note that if the non-mineral development was not being proposed on safeguarded land, then there would be no need to consider prior extraction. As such, the practicability and environmental feasibility of prior extraction and restoration must be viewed in the context of the development as a whole, and not as a standalone commercial mineral extraction activity. To do otherwise is to carry out an assessment of 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 potential benefits of prior extraction to the residential development as a whole, is a false equation. Depending on the size of the application site, prior extraction can provide a significant contribution to sustainability credentials and costs by allowing the sourcing of much of the aggregates required to build the development from locations on-site. There are also a number of further sustainability benefits related to prior extraction, as set out in the next section, which can also create places more desirable to live. Prior extraction is also an opportunity for landowners to essentially profit from their land twice, once for mineral extraction and then a second time for the delivery of the non-mineral development creating the need for prior extraction.
- 3.146 It is also noted that the test required by national policy of whether prior extraction should take place is not explicitly linked to a financial profitability test in either the NPPF or PPG. It is however accepted that the cost of prior extraction clearly has viability impacts, up to and including making the primary development itself unviable. Where the impacts that would be caused by prior extraction would erode the viability of the non-mineral development to the point that it would compromise delivery, the MWPA would, without prejudice, accept such circumstances as demonstrating that prior extraction fails the test of being 'practical' which is part of the test set out in the NPPF. This is however on the proviso that the prior extraction and non-mineral development have been treated holistically and the MRA demonstrates that a borehole-informed mineral assessment was carried out, at a sufficiently early time, to have

allowed the conclusion(s) of the MRA to have a meaningful impact on the design of the non-mineral development. A clearly retrospective MRA that demonstrates little iteration with the non-mineral development it supports will likely, without prejudice, be considered by the MWPA as a departure from the Development Plan in that the application has failed to consider the best use of finite mineral resources as required by local policy and the NPPF.

- 3.147 On a similar point, conservation measures, in of themselves, are not typically profit generating activities. As such the absence of profit directly related to the prior extraction activity is not, in of itself, an acceptable reason to conclude that the prior extraction of this mineral is unviable, now and/ or in the future. Evidence supporting a conclusion of prior extraction being ‘not practicable’ based solely on economic viability would be expected to be justified through a high-level financial appraisal of the value and costs of prior extraction, which should then be linked to the benefits/disbenefits of prior extraction in the context of the delivery of the proposed non-mineral development. The MWPA does not expect this wider assessment to be fully financially quantified however and respects that matters relating to the viability of non-mineral projects are resolved in discussions with the LPA during the formation of their Local Plans.
- 3.148 Where prior extraction is practical and environmentally feasible, applications are to set out a program for prior extraction to avoid unnecessary sterilisation. If the assessment concludes otherwise, applications are to provide sufficient justification as to why prior extraction is neither practical or environmentally feasible and/ or justify why the need for the development outweighs the national principles of mineral safeguarding, both now and into the future.
- 3.149 Regarding the NPPF requirement to assess whether prior extraction is viable in the future, the NPPF Paragraph states 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.’ As noted previously in this section,, the area covered by a mineral extraction application and MSA can be many times greater than a housing application. Mineral underlying a non-mineral development may be a viable resource where it is able to be extracted on a scale more representative of a mineral development. Mineral MSAs are designed not only to require the consideration of the mineral below the non-mineral site, but also bring awareness to the piecemeal loss of larger mineral deposits that could be potentially workable in the future on a scale more reflective of mineral development. To ensure that piecemeal loss of finite resources are appropriately discussed in the MRA, where an assessment is made of whether the non-mineral development might constrain potential future use for mineral working, this is to be assessed as part of the wider MSA within which the land pertaining to the application sits within, and not the application site in isolation.
- 3.150 As the determining authority for non-mineral applications, it is for the Local Planning Authority to consider, as part of the planning balance, whether need for the non-mineral development outweighs its impact on both the safeguarded resource within the application site as well as the immediate surrounds, particularly in the context of the future potential for extracting this finite

resource based, where relevant, on the spatial extent of the wider MSA.

The Benefits of Prior Extraction

3.151 Although primarily a conservation measure, the prior extraction of minerals 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 desirable places to live,
- opportunities for biodiversity net-gain and to 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.

3.152 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.

3.153 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.

3.154 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.

3.155 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. Prior extraction can allow 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.

- 3.156 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.

Determining if prior extraction is practical or environmentally feasible

- 3.157 Applications for non-minerals development within a MSA will be expected to provide sufficient information to determine if prior extraction is practical and environmentally feasible. In MSAs, every effort should be made to support the extraction of minerals which would otherwise be sterilised by non-minerals development.
- 3.158 Non-minerals development proposals within a MSA which do not include prior extraction should clearly demonstrate why this would not be practical or environmentally feasible. In doing so, proposals should take account of features and issues such as ecology designations, landscape character, heritage designations, geodiversity/ geological conservation, proximity to existing dwellings, highways infrastructure, proximal waterbodies, hydrology, land stability, restoration requirements, the impact on the future potential for mineral extraction, implications on the financial viability of the non-minerals development, any utilities present on the site which may hinder prior extraction, and any other matters which may be relevant to the specific circumstances of the site. Please see Table 7.
- 3.159 Further details with regards to the practical application of the safeguarding policy can be found in Appendix 2. This includes consultation mechanisms, general information requirements for MRA and determination processes for applications containing an element of prior extraction.

Policy S8 - Safeguarding Mineral Resources

Safeguarded mineral resources of national and local importance (sand and gravel, silica sand and brick-making clay) are shown on the Policies Map as 'Mineral Safeguarding Areas'. These resources are safeguarded against unnecessary sterilisation.

Unless defined as 'excluded development'¹⁴, proposed non-mineral development that exceeds the relevant thresholds¹⁵ shall be supported by a Mineral Resource Assessment¹⁶ demonstrating whether prior extraction is practical and environmentally feasible.

Proposed non-mineral development within Mineral Safeguarding Areas, shall, subject to other policies of the development plan, be permitted where:

¹⁴ Defined in Table 6

¹⁵ Identified in Table 3

¹⁶ Requirements of a Minerals Resource Assessment are set out in Table 7

- a. prior extraction of mineral forms part of the non-minerals development; or,
- b. the sterilisation of a mineral resource will not occur; or,
- c. prior extraction has been demonstrated as not being practical or environmentally feasible, now or in the future, and there are other benefits that outweigh the loss of part or all of the safeguarded mineral deposit.

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

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

Policy S9 - Safeguarding Mineral Extraction Sites and Other Mineral Infrastructure

Safeguarding Mineral Infrastructure

- 3.160 Ensuring that there are sufficient mineral resources to facilitate sustainable growth and development is not just about extracting minerals from the ground. There are a number of different types of mineral facilities that together provide a range of functions that contribute to ensuring that society has access to a steady and adequate supply of minerals. This range of facilities, including the extraction sites themselves, are collectively known as ‘mineral infrastructure’ within this Plan.
- 3.161 The NPPF states that when preparing their local plans, MWPA’s should include policies to safeguard existing, planned, and potential sites for: the bulk transport, handling and processing of minerals, the manufacture of concrete and concrete products, and the handling, processing and distribution of substitute, recycled and secondary aggregate material. Alongside these, the MWPA will safeguard mineral extraction sites either allocated through this Plan or already permitted. The NPPF is also clear that existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established, and this includes mineral infrastructure.
- 3.162 There are mineral transshipment sites at the following locations:
- Chelmsford Rail Depot;
 - Harlow Mill Rail Station (x2);
 - Marks Tey Rail Depot.
- 3.163 In addition to the dedicated mineral transshipment facilities, above, there are small wharves which could have the potential to transship a range of products including minerals, or which have the potential to transship minerals, which will need to be considered and safeguarded by the respective LPAs.
- 3.164 Existing rail depots and marine wharves contain mineral infrastructure that is of vital strategic importance for the future supply of aggregates needed in Essex. As such, their safeguarding needs to be continued to prevent their redevelopment for other land-uses.
- 3.165 In accordance with national policy, and given local circumstances in Essex, normally it will be reasonable to continue to safeguard mineral transshipment infrastructure as the consequences of their loss would be significant and irreversible. Safeguarding applies to the rail depots and marine wharves themselves, and also to the storage, handling and processing facilities associated with them.

Coated Roadstone Plant (Asphalt)

3.166 The number of coated roadstone plant within Essex is annually monitored through the LAA. As of 31st December 2021, there are five coated stone plants in operation, which together provide strong spatial coverage across Essex. They are located at Stanway (Colchester City), Bulls Lodge (Chelmsford City), Essex Regiment Way (Chelmsford City), and two sites within the transshipment site at Harlow Mill Rail Station (Harlow District). The sites at Harlow Mill Rail Station, and Essex Regiment Way are located outside existing mineral workings and have permanent planning permissions. The plant within existing quarries have temporary permissions, which would cease upon completion of the associated mineral working.

3.167 These five coated stone plants are considered to be of strategic importance due to:

- The limited number serving Essex;
- Their locational significance for promoting sustainable transport and distribution patterns due to their relative proximity to the strategic road network and consequent ability to reduce mineral miles; and
- The relative difficulty of providing for new alternative facilities due to environmental constraints.

3.168 The MWPA will safeguard these five plant as required by the NPPF. However, a safeguarded plant within a mineral development will not be allowed to remain beyond the life of the existing planning permission for extraction unless material circumstances demonstrate an overriding benefit. Safeguarding is not a means of retaining an 'industrial' use permanently, if it was originally permitted ancillary to other mineral development.

3.169 The safeguarding of any new plant will occur for the lifetime of the planning permission for the plant and would ensure the effective operation of the plant is not compromised by other incompatible development proposed in its vicinity.

Concrete and Mortar Batching Plant

3.170 The number of concrete batching and mortar plant within Essex is annually monitored through the LAA. As of 31st. Some are located on existing mineral workings whilst others are stand-alone facilities on industrial estates in urban areas. The numbers involved do not suggest that any individual plant is critical in its own right. In addition, most have permanent planning permission and are also physically re-locatable. However, each facility contributes to the total capacity available in the county to produce these products. In conformity with the NPPF, the MWPA will safeguard these facilities, where included on the RMLP Policy Map, and oppose their loss unless compensatory capacity can be provided in proximity to the facility being lost. Where such plant on industrial estates have been separately determined as non-county matters by the respective LPA, these would need to be considered for safeguarding in their own local plans as required by the NPPF.

3.171 The provision of any new plant in the future will be addressed through policies in this Plan and in the respective local plans prepared by Essex district/borough/city councils when these are a district matter.

Bagging Plants

3.172 The number of bagging plant within Essex is annually monitored through the LAA. The provision of any new plant in the future will be addressed through policies in this Plan. In conformity with the NPPF, the MWPA will seek to safeguard these types of facilities and oppose their loss unless compensatory capacity can be provided, where necessary, in proximity to the facility being lost.

Definintion of Mineral Infrastructure

3.173 The following are therefore defined as ‘mineral infrastructure’:

- Mineral extraction sites and their associated facilities with planning permission (implemented or otherwise), including those facilities which are dormant;
- Sites allocated in this Plan for future mineral extraction;
- Mineral transshipment sites;
- Aggregate recycling facilities (see Policy S5); and
- Stand-alone or co-located secondary processing facilities either in operation or dormant.

3.174 Policy S9 applies to all such mineral infrastructure as set out within the Policy Map associated with this Plan, or which benefit from a planning permission issued by Essex County Council.

The Agent of Change Principle

3.175 Safeguarding mineral infrastructure is not just about safeguarding against the loss of the facility itself. Mineral development 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 painting and furnishing), food processing and high-tech industries.

3.176 It is therefore necessary to safeguard allocated, permitted and existing mineral infrastructure sites to prevent the possibility of new incompatible neighbouring development being established and ultimately restricting mineral site operations. Incompatible/sensitive development should not be located in such close proximity that it puts constraints or limits upon current or future uses for mineral development where these are already allocated, permitted or existing.

For example, a proposed non-mineral development (even a single dwelling) on the edge of, or in proximity to, a mineral site or haul road can prevent part of that site from being worked or the haul road being used. Compromising the planned working of mineral infrastructure can sterilise the resource and/or make the infrastructure unviable, therefore prejudicing the steady and adequate supply of aggregate within the Plan area. Avoiding such impacts is in conformity with the NPPF - 'agent of change principle', which states that existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established.

Mineral Infrastructure Consultation Areas

3.177 Safeguarding will be implemented through Mineral Infrastructure Consultation Areas (MICAs) which are defined around all 'mineral infrastructure' fitting the description above. Mineral Infrastructure Consultation Areas (MICAs) 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. A list of safeguarded mineral infrastructure will be presented in the Authority Monitoring Report and these facilities and their associated MICAs will be shown on the electronic Policy Map associated with the RMLP.

Mineral Infrastructure Impact Assessments

3.178 In order to satisfy the provisions of Policy S9, non-mineral led applications made within MICAs are required to include a Minerals Infrastructure Impact Assessment (MIIA) as part of its evidence base. These would be required to cover both the potential impact of the non-mineral led development on the relevant mineral infrastructure, and the impact of the latter on the former. The MIIA should be carried out at such a time as to be capable of informing the planning application that it supports. The need for an MIIA should be included in the Validation Checklist of each Local Planning Authority, and the need for an MIIA is expected to form part of early engagement, including pre-application discussions between the relevant Local Planning Authority, the prospective developer and/or the MWPA as relevant.

3.179 The MWPA should be consulted by Essex district, borough and city councils about all development proposals and proposed allocations within MICAs, not excluded by virtue of Appendix 2, as even minor development occurring within such MICAs may have the potential to significantly impact upon the future operation of mineral infrastructure. Further details regarding consultation mechanisms supporting safeguarding policy can be found in Appendix 2.

3.180 The MWPA has designed a generic schedule of example requirements that should be addressed as relevant through an MIIA. This can be found in Table 8. The detail to be provided should be in proportion to the nature of the proposed application. It is noted that much of the information required to inform an MIIA may be collated through other supporting evidence. In such instances, it is acceptable for the MIIA to signpost to other evidence base documents.

- 3.181 An inadequate MIIA, or any other failure to demonstrate compliance with safeguarding policy could lead to an objection to the development by the MWPA, which will be a material consideration in the determination of the application by the Local Planning Authority.

Policy S9 - Safeguarding Mineral Extraction Sites and other Mineral Infrastructure

Mineral Infrastructure Consultation Areas (MICAs) are designated up to 250m from the site boundary of existing, permitted and allocated minerals infrastructure, including mineral extraction sites. MICAs are set out on the Minerals Local Plan Policy Map.

Non-minerals development within MICAs shall be supported by a Minerals Infrastructure Impact Assessment¹⁷. Non-minerals development within MICAs shall only be permitted where:

- a) suitable and effective mitigation would ensure that there would be no unacceptable impact on either the non-minerals development and/or the existing or proposed minerals infrastructure; or,
- b) a temporary permission for the mineral infrastructure has expired or will expire by the time of the operation/occupation of the non-mineral development, and there is no potential for mineral use to recommence; or
- c) the minerals infrastructure has otherwise ceased and there is no potential for the development to recommence, and the site is considered unsuitable for a subsequent minerals infrastructure or,
- d) redevelopment of the minerals infrastructure site or loss of the minerals infrastructure would form part of a strategy or scheme that has wider environmental, social and/or economic benefits that outweigh the retention of the site or the minerals infrastructure, and alternative provision is made for the displaced minerals infrastructure; or,
- e) a suitable replacement site for the minerals infrastructure has otherwise been identified and permitted.

Where planning permission is granted for new mineral infrastructure, those sites will also be safeguarded so that the minerals infrastructure is not compromised by sensitive or inappropriate development that would conflict with their use. Minerals infrastructure will be safeguarded for the life of the planning permission or, where located in a mineral working, for the life of the planning permission of the primary mineral workings unless there are significant reasons for doing otherwise.

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

Strategic Objectives: Policy links to the delivery of objective 6a.

¹⁷ Requirements of a Minerals Resource Assessment are set out in Table 8

Protecting and Enhancing the Environment and Local Amenity

Background

- 3.182** Mineral development can be an environmentally intrusive activity which can have a significant effect on the environment and the people who live and work close by. Mineral working can potentially cause the alteration of topography, landscape and localised hydrology (including the creation or alteration of waterways), noise, dust and traffic impacts, and the loss of both tranquillity and visual amenity. This can result in severance and disruption of landscape, habitat loss, adverse impacts on local host communities, including physical and mental health/wellbeing and amenity impacts, as well as impacts on sites of nature conservation, archaeological and cultural heritage value. Also, due to the concentration of mineral resources in certain parts of the county, working can cause cumulative impacts. Positive benefits can also arise following site restoration, notably through changes in topography and habitat creation, as well as creating open space, wetlands and recreational opportunities.
- 3.183** The capacity of a local area to accommodate minerals development is heavily dependent on the proximity of existing development, the type of operations proposed, how they are planned for and mitigated, and the programme of implementation and monitoring. These issues are addressed on a site-by-site basis under the Development Management policies found in Chapter Development Management Policies.



- 3.184** Any proposals for mineral development will be expected to show compliance with the relevant Habitat Regulations through completion of a Habitats

Regulations Assessment (HRA) where proposals have the potential to impact on a Habitats Site. Currently, where a proposal would result in an increase of 200 daily HGV movements within 200m of a Habitats Site, it will be required to undertake and submit an air quality analysis compliant with Environment Agency guidelines as part of the proposal.

- 3.185 Proposals should consider the wider context of possible adverse impacts and the possible cumulative effect with other development, within the vicinity of the site. The proposed scheme of minerals development, including processing, transportation and the impact of ancillary structures associated with minerals development, all need to be fully considered and addressed at the earliest stage of the planning process in order to ensure that any adverse impacts are reduced to an acceptable minimum.
- 3.186 Although mineral workings are traditionally associated with a range of negative environmental impacts, sensitive working and restoration schemes can make an important contribution to improving the quality of the environment. In accordance with the NPPF, emphasis is placed on the importance of community involvement in the planning process. Mineral operators are encouraged to have effective consultation and liaison with the local community and other stakeholders. This is expected both before planning applications are submitted and during the operation, restoration and aftercare of sites. The MWPA's strategic approach to minimising the impact of mineral development is set out in Policy S10. More detailed aspects regarding the protection of local amenity and the environment, including areas with specific designations, are addressed in the Development Management chapter.
- 3.187 The Environment Act 2021 establishes the principle of environmental gain as a requirement of all development. The Act requires a mandatory minimum of 10% biodiversity net gain. Applicants are expected to assess biodiversity net gain using the Government's published biodiversity metric tool. Biodiversity net gain delivers measurable improvements for biodiversity by creating or enhancing habitats in association with development and can be achieved on-site, off-site or through a combination of on-site and off-site measures.

Policy S10 - Protecting and Enhancing the Environment and Local Amenity

Applications for minerals development shall demonstrate that appropriate consideration has been given to public health, wellbeing and safety, amenity, quality of life of nearby communities, and the natural, built, and historic environment. Appropriate mitigation measures shall be included in the proposed scheme of development to ensure that no unacceptable adverse impacts would arise. Applications shall also demonstrate that opportunities have been taken to improve and enhance the environment and amenity, and to deliver a net gain in biodiversity, as an outcome of final restoration.

Spatial Vision: Policy links to the delivery of vision themes D, H and J.

Strategic Objectives: Policy links to the delivery of objectives 1c, 1d 4, 2a, 3a and 3b.

Access and Transportation

- 3.188 The transportation of minerals and associated traffic is one of the most significant impacts relating to mineral development, and it is what usually causes most concern to communities. It is of utmost importance when permitting new minerals related development (including new extraction sites, extensions to existing sites and transshipment sites) that Heavy Goods Vehicles (HGVs) use appropriate routes. Locating sites far away from the main road network, defined as the road network excluding secondary distributor roads, estate roads and other routes that provide local access, will require the use of these more local routes. Such use will normally be restricted.
- 3.189 It is recognised that the use of HGVs is generally disliked because they are noisier and more intimidating than other traffic and may add to congestion. The transportation of minerals over long distances is more sustainable by rail and water although the scope for this within Essex remains limited. The use of electric vehicles, or other low emission vehicles such as hydrogen, potentially presents a more sustainable transport option in the future. The MWPA will also continue safeguarding rail head facilities to enable the long-distance haulage of aggregate imported to, and exported from Essex to take place outside of the road network. Proposals for new sites for the moving of minerals by rail and water will be encouraged in policy-compliant locations.
- 3.190 The nature of the market in Essex means that the majority of minerals extracted in Essex are being used within the County. This means that the majority of minerals are and will continue to be distributed across Essex by HGVs, as this is the most effective and economic means of short haul transport.
- 3.191 Therefore, the MWPA considers that the promotion of sustainable mineral transport can best be served by seeking to minimise the road mileage associated with mineral movements. It is also recognised that there are distances beyond which it is not economic to transport minerals by road, the typical maximum distance for aggregates is 60 km (37 miles) and the average road delivery distances for ready-mix concrete and asphalt is 42 km (26 miles).
- 3.192 To promote sustainable transport, this Plan must also direct HGVs onto suitable routes, optimise the efficient use of the main road network and apply the route hierarchy. The route hierarchy catalogues roads by capacity, and mineral traffic will be expected to use those roads in the upper tiers, defined as trunk roads (including motorways), strategic routes and main distributors, and in some circumstances suitable secondary distributors. This is in conformity with the Transport policies contained within the Essex Transport Strategy (2011) Policy 6: Freight Movement and the Essex Highway Authority's Functional Route Hierarchy as set out in the Highways Development Management Policies (February 2011).
- 3.193 The three tiers of the hierarchical approach set out in the policy are equally applicable to any minerals related planning application, including new proposals for transshipment sites requiring connection to the road network. The

Highway Authority has a preference towards sites that utilise and make the most effective use of the upper tiers of the route hierarchy in order to keep traffic away from unsuitable minor roads. Where the movement of minerals are by road, the increase in traffic movement and effects on air quality shall be in accordance with published highway design guidance and national air quality objectives and strategies.

- 3.194 The first tier in the policy seeks to ensure access to the main road network via a suitable existing access or junctions with short connections to the highway from the site, and these should be as short as possible and improved if required to the satisfaction of the Highway Authority. The second tier involves the creation of new access/junctions directly onto the main road network, although instances should be minimised so as not to disturb the flow of traffic on the main roads. If either of these cannot be provided, then the third tier is then considered, which involves the use of a longer section of road to connect the mineral development to the main road network. This would only be acceptable if the section of road was of a suitable standard with available capacity as defined by the Highway Authority. This third tier involving the use of roads outside the main road network will also only be acceptable if there is no adverse impact on road safety and the environment, including local amenity.
- 3.195 It will continue to be unacceptable for new junctions to be created straight onto a trunk road, or for mineral traffic to use small and unsuitable roads for excessive distances. This approach should minimise HGV and Extra Long Vehicles (ELV) traffic on unsuitable roads so as to limit adverse impacts on communities and the environment. Achieving the access connection to the main road network may include significant road improvements, including junction improvements, road widening on short stretches of road, improvements to visibility around the access to a site or construction of a new access/junction, to be provided by, or on behalf of, a developer. It is important that minerals development does not compromise highway safety and that where costs for improvements are incurred, these are met by the developer and not the community. Equally the needs of other road users including pedestrians, cyclists and horse riders should be considered, especially where the highway forms a link in the rights of way network. Any improvements must be in accordance with the route hierarchy, as set out in the Highways Development Management Policies (February 2011).
- 3.196 The Highway Authority may require improvement works (at the developer's expense) to upgrade the road network to accommodate HGV traffic from the site. If roads are required to meet the Highway Authority's specification, it is unlikely that further contributions would be sought for maintenance. Where improvements to the road network have not already been requested by the Highway Authority, and that part of the road network would predominantly be used by HGV traffic associated with the proposed mineral development and is considered to be particularly sensitive to HGV movements, a legal agreement to secure a financial contribution to the maintenance of that part of the network, including repair of verge damage, may be appropriate.
- 3.197 Where evidence justifies it, conditions can be placed to limit the operational hours of a mineral development, which includes vehicles accessing and

leaving the site, should there be a justification based on local amenity. The implications of restricting HGV movements to or from a site will be considered against the impact this may have on the supply of materials from a site, such as when mineral is raised through prior extraction, requires processing in order to be of beneficial use, or to be transported to a site of sale.

- 3.198 The co-location of mineral-related development, where this would reduce the length and time of mineral journeys and bring environmental and community benefit and enable economies of scale, should be considered wherever practicable. An assessment of the cumulative impacts of mineral development would be necessary to support such an approach.
- 3.199 Planning applications for minerals related developments will be expected to show that alternatives to road-based movements have been considered as part of a Transport Assessment or Transport Statement, particularly with regard to the use of existing transshipment facilities when appropriate. An assessment of the impacts of transporting minerals and associated products to and from quarries is a key consideration when determining development proposals. However, it is accepted that the majority of mineral extracted in Essex serves the local Essex market and is therefore transported over shorter distances, meaning that HGVs are often the only practicable, cost-effective option.
- 3.200 When determining planning applications for minerals development, the MWPA may be required to use planning conditions to restrict the number of vehicle movements. Conditions may be used when it is considered necessary to minimise highways and amenity impacts from HGV transport. The operator may also enter into a unilateral agreement to ensure acceptable routing of its HGVs.
- 3.201 It is important to ensure that the effects of traffic on any local community, the environment and the local road network are carefully considered, including the cumulative impacts of these. Where development proposals or site allocations are extensions to existing quarries, these areas should be worked consecutively in order that mineral extraction in the existing quarry be completed prior to mineral extraction commencing in the new “extension area”. This is to ensure that there is no cumulative increase in associated vehicle movements (such as by having two areas operational), and that workings are progressive. Furthermore, the new extension areas should not involve an increase in vehicle movements at that site, when compared to vehicle movements under existing permissions. Where appropriate, consideration should be given to the need to manage the movement of traffic to the most appropriate routes and the mechanism available to achieve this, including legal agreements in consultation with communities. Local communities are able to monitor vehicle movements from mineral developments themselves and report these to the MWPA. The MWPA includes an Enforcement service which can act on any non-compliance with planning conditions.

Policy S11 - Access and Transportation

Proposals for the transportation of minerals by rail and/or water will be encouraged.

Where the movement of minerals are by road, HGV movements shall not generate unacceptable impacts on highways safety, highways capacity and air quality (particularly in relation to any potential breaches of National Air Quality Objectives and impacts on any Air Quality Management Areas). Proposals shall be in accordance with published highway design guidance. The use of electric vehicles, fuel efficient and/or low, ultra low or zero greenhouse gas emitting vehicles, will be supported where possible.

The following hierarchy of preference for transportation by road shall be applied:

- (i) Access to a suitable existing junction with the main road network via a suitable section of an existing road, as short as possible, without causing a detrimental impact upon the safety and efficiency of the network;
- (ii) Where (i) above is not feasible, direct access to the main road network involving the construction of a new access/junction when there is no suitable existing access point or junction;
- (iii) Where access to the main road network in accordance with (i) and (ii) above is not feasible, road access via a suitable existing road prior to gaining access onto the main road network will be permitted, having regard to the scale of the development, the capacity of the road and an assessment of the impact on road safety.
 - Planning applications for new minerals development proposals or proposals that generate traffic impact and/or an increase in traffic movements, shall be accompanied by a Transport Assessment or Transport Statement that demonstrates: Appropriate measures to reduce car travel to the site by workers and visitors, by encouraging walking, cycling and/or the use of public transport;
 - An assessment of the opportunities for providing electric vehicle charging infrastructure, including the use of electric HGV's or other low emission technologies;
 - If appropriate, information to demonstrate that the proposed development will avoid adverse air quality impacts on Habitats Sites;
 - Suitable highway access and egress, in accordance with published highway design guidance;
 - Consideration of all road users, including cyclists, horse riders and pedestrians;
 - Compliance with the above hierarchy of preference (i – iii); and

Considering any mitigation measures proposed, minerals development shall not cause:

- a) Unacceptable physical impacts on the highway network (e.g. kerbside or road damage);
- b) Unacceptable risks to the safety of pedestrians and road users;
- c) Unacceptable impacts on the efficiency and/or capacity of the highway network (including the trunk road network);
- d) Any other unacceptable highway impact.

Spatial Vision: Policy links to the delivery of vision theme D.

Strategic Objectives: Policy links to the delivery of objectives 1c, 2a, 3b and 8a.

Restoration and After-use of Mineral Extraction Sites

Background

- 3.202** Unlike many other forms of development, mineral extraction is a temporary use of land, although on larger sites it may be a long-term activity. Careful restoration of the site to beneficial after-use(s), often in a phased manner, avoids any permanent adverse impacts on the local environment and will provide opportunities for positive enhancement of the local area. It is therefore important that recognition is given to the opportunities that minerals development may present, particularly through site restoration and after-use, to enhance and extend the natural environment and increase the potential for its enjoyment.
- 3.203** Sustainable mineral development aims to preserve and enhance the land's long-term potential to support beneficial after-use into the future through high standards of working and restoration. Achieving timely and high-quality restoration and beneficial after-use is integral to the consideration of all proposals for mineral extraction.
- 3.204** The way land is restored, and its subsequent after-use and management provides a unique opportunity to enhance the character of land taken for mineral extraction. Properly managed restoration to an appropriate after-use will benefit communities and their local environment and ensure that valuable new assets are created. The weight given to environmental impacts must reflect the sensitivity and importance of the natural resource or environmental asset to be affected, and take account of the positive environmental, social, and economic opportunities that development may present.
- 3.205** It is an essential part of the spatial strategy to provide a strategic steer on how mineral extraction sites should be restored and put into beneficial after-use. There is a need for restoration schemes to reflect relevant strategies and Local Plan objectives for built development and countryside enhancement, including existing or emerging Green and Blue Infrastructure Strategies. More detailed policy appears later in the Plan to explain how applicants should prepare planning applications to achieve effective restoration and after-use. This includes the policy criteria that will be used by the Minerals Planning Authority in determining applications.

Restoration

- 3.206** The NPPF states that planning authorities should provide for site restoration and beneficial after-use at the earliest opportunity, and for it to be carried out to high environmental standards.
- 3.207** 'Restoration' covers any operations designed to return the land to an acceptable landform, environmental condition and/or beneficial after-use(s). It includes events that take place before and during mineral extraction (such as the stripping and protection of soils), and operations after extraction up until an

after-use is established on site.

- 3.208 Formerly, infilling was a common part of the restoration process. The final restoration level of sites will now generally be decided on a case-by-case basis, but must be sympathetic to the surrounding landscape. Infilling shall only be at a scale considered necessary to achieve beneficial restoration. This will allow the MWPA to consider the relative benefits that would be realised through a specified degree of importation. Restoration proposals for sites situated within an Impact Risk Zone (IRZ) for Habitats Sites should avoid using putrescible waste or be able to demonstrate that the use of such waste for infilling will not result in adverse effects on the integrity of any Habitats Sites alone or in combination, through a project-level HRA. This is to avoid Adverse Effect on Integrity (AEOI) on those Habitats Sites, such as by preventing the encouragement of predation on protected species by gulls and crows. Proposals for land raising with waste will only be permitted where in accordance with the policies of the Waste Local Plan (2017). Opportunities for habitat creation will be considered, to promote biodiversity and geodiversity, but regard still will be had for the local landscape.
- 3.209 It is normal practice to work extraction sites in phases and to restore each phase in turn shortly after its exhaustion has taken place. Progressive working and restoration can lessen the overall impact of mineral working on the environment and minimise the loss of land in agricultural production. The phasing and direction of working can be particularly relevant to minimising the impact on residential and local amenity.

After-use proposals

- 3.210 'After-use' means the land-use or land-uses that a former mineral working is placed into following its restoration. Once mineral extraction has been completed, a site may be returned to its former land-use or to a number of different new 'after-uses'. In all cases, site restoration will involve the removal of temporary buildings, plant and equipment previously associated with the mineral extraction, unless a further extension site obtains planning permission and it is sustainable for this to remain.
- 3.211 After-uses should be considered early in a proposal's development in order to maximise opportunities to enhance the variety, and quality, of environmental features and increase the wider benefits available to communities. For example, recreational opportunities, a unique range of wildlife, and offering relief from the higher temperatures expected as a result of climate change are all beneficial after-uses that could be integrated within a single site. This Plan requires both applicants and the MWPA to consider the range of benefits that mineral restoration and after-use proposals might deliver, including its ongoing stewardship. Green and blue infrastructure strategies and local plan objectives, including for built development, must be referred to when proposing restoration and after-use(s). The MWPA will consult the relevant local planning authority for its views when determining planning applications for minerals development.
- 3.212 Should a secondary proposal be submitted for an after-use, which would

interfere/conflict with an already approved restoration scheme or aftercare condition attached to an existing mineral/landfill permission, then two applications may need to be made. One of these would be to the relevant district, borough or city council for the non-mineral related newly proposed after-use and the other to the County Council for the amendment/variation to the approved aftercare scheme to accommodate the required change in restoration. Schedule 1 of the Town and County Planning Act 1990 also allows the County Council to deal with an application for development that affects the restoration of an existing or former minerals site. The County Council and relevant district, borough or city council should consult each other to determine the most appropriate way forward.

Agriculture

- 3.213** The PPG states that “Where working is proposed on the best and most versatile agricultural land the outline strategy should show, where practicable, how the methods used in the restoration and aftercare enable the land to retain its longer-term capability, though the proposed after-use need not always be for agriculture.”¹⁸. Likewise, the NPPF requires restoration and safeguarding of the best and most versatile agricultural land, and to provide for the conservation of soil resources.
- 3.214** Agriculture and biodiversity enhancement/habitat creation need not be incompatible land uses. A balance should be achieved between current and future agricultural need, site-specific biodiversity value and/or potential, and other considerations. Well-designed agricultural restoration can still deliver significant benefits for ‘farmland’ biodiversity in the form of hedgerows, lakes and ponds, habitat features and small woodlands. Moreover, many UK Biodiversity Action Plan grasslands, such as Lowland Meadows or Floodplain Grazing Marsh can be compatible with commercial livestock systems.
- 3.215** Water features in agricultural restoration can contribute to agricultural irrigation, biodiversity, flood resilience and storage, and landscape enhancement in a multi-functional way, and should all be considered. Essex County Council has a strategic role in overseeing the management of local flood risk, that is flooding from surface water runoff, groundwater, and ordinary watercourses, and works with the Environment Agency and the Water Companies on strategies to tackle this issue. In particular the Surface Water Management Plan that outlines the preferred surface water management strategy in a given location must be given regard by any proposal. Where restoration proposals are reliant on water, the application will be required to ensure that sufficient water resource will be available. If this cannot be demonstrated, proposals will be required to be adapted to accommodate this.

Biodiversity Enhancement and Habitat Creation

- 3.216** Biodiversity enhancement and climate change adaptation through the

¹⁸ Reference ID: 27-040-20140306

provision of natural landscape features is encouraged through Government policy and Environmental Stewardship Schemes. This includes off-site habitat creation for other development schemes being used to incentivise biodiversity after-use at mineral sites. The MWPA will facilitate the management and enhancement of populations of protected species and creation of priority habitats, with the overall aim to achieve a net gain in biodiversity. The minerals industry has always taken a leading role in this regard and is encouraged to continue to do so.

- 3.217 All mineral site restoration should provide a net-gain in biodiversity and contribute towards establishing a coherent and resilient ecological network through the creation of priority habitat, integrating with landscape-scale conservation initiatives where appropriate¹⁹. 'Stepping stones' or 'green corridors' can be created which link to each other and to wider green infrastructure across the plan area (and/or potentially in adjoining local authority areas).



Outdoor recreation

- 3.218 Improved public access to the natural environment can be provided by creating enhanced opportunities for all recreational users, including walkers, cyclists, and horse riders, as well as new leisure and amenity areas. This may include the creation of new green spaces (such as parks, green corridors or green wedges and woodlands), improvements to the strategic rights of way network, increased public access through the provision of footpaths and cycleways, and other outdoor recreation uses; especially with regard to the provision of bridleways as multi-user paths as part of any permission granted.

¹⁹ Priority Habitats are defined in the NPPF as being the Habitats of Principle Importance included in the England Biodiversity List published by the Secretary of State under section 41 of the Natural Environment and Rural Communities Act 2006. They are habitats identified as requiring action in the UK Biodiversity Framework habitats and continue to be regarded as conservation priorities.

- 3.219 In preparing their planning applications, developers should have regard to guidance set out in Natural England’s ‘Accessible Natural Greenspace Standard’ and the ‘Nature Nearby’ (2010) report, or similar up to date and best practice guidance relating to the provision of accessible outdoor recreational facilities.
- 3.220 The NPPF makes clear that the planning system has a role to play in facilitating social interaction and creating healthy, vibrant communities. The provision of new opportunities for outdoor recreation in site restoration proposals will support this role by providing greater opportunities for increased physical activity and improved mental health, as described further below.

Health and Wellbeing

- 3.221 The Mineral Planning Authority recognises that poorly managed mineral development can impact on the quality of life of residents in close proximity, with resultant impacts on mental health and wellbeing, particularly in the short-term. It is also recognised that the health impacts of mineral extraction are not always direct from operational activities, they can be indirect, such as fear of physical harm or stress due to perceived impacts on quality of life. Mental health impacts can however be positive in the long-term, offering outdoor recreational benefits from beneficial restoration and improving the quality of life and wellbeing for communities.
- 3.222 The Essex Design Guide reflects on the wider benefits that development can have on health, recognising how the positive characteristics and qualities of an environment can help people to achieve and experience better quality lifestyles.
- 3.223 Community spaces and movement corridors are key features of spaces, and these serve to shape how we feel about an environment. Where relevant, restoration schemes should contribute to creating socially inclusive, active communities, and seek to build in opportunities for communities to be active through their everyday lives.
- 3.224 Physical and mental Health and wellbeing from restored sites can be encouraged and improved by:
- supporting community leadership and participation through high quality planning, design, and management of the environment;
 - promoting sport & recreation facilities, environmental sustainability, and skill development;
 - providing interesting and stimulating open spaces and natural environments to encourage people to be physically active;
 - encouraging active travel, particularly cycling and walking;
 - ensuring that public spaces are sufficiently well designed to promote active and healthy lifestyles.
- 3.225 There is a clear link between the nature and quality of the environment and the mental health of those engaging with it. The urban environment may also act to

remove factors that maintain mental health and wellbeing: a commonly recognised issue is the reduction in opportunity to access open green space that comes with a more urbanised living environment.

- 3.226 Therapeutic and mental health benefits that have been attributed to interactions with green spaces and natural environments include reduced anxiety, increased self-esteem and psychological wellbeing, improved mood, improved academic performance and improved cognitive functions. It is therefore crucial that restoration schemes are considered in the context of the communities within which they sit. Opportunities should be taken to understand how restoration could best serve local communities by offering land use opportunities that may otherwise be lacking.
- 3.227 Nature-based therapy has also been suggested as a treatment to relieve mental and physical illness and improve recovery time from stressful situations or medical procedures. Simply being able to view nature can produce significant recovery or restoration from stress within 3-5 minutes.
- 3.228 Essex County Council is actively working to develop strategies aimed at making more effective use of green spaces, so as to better support the broad needs (including mental health needs) of Essex residents. These strategies aim to establish multifunctional priorities for green spaces across the county. Using green assets such as country parks and potential major development opportunities, such as new Garden Communities, to support the physical and mental health and wellbeing of residents is recognised as an opportunity to significantly improve health and wellbeing.
- 3.229 The Plan will seek to ensure that extraction sites, once they come to the end of operation, are positively planned and restored to deliver long term sustainable development, multifunctional social, economic, and environmental benefits in order to positively contribute to health and wellbeing.

Landscape enhancement

- 3.230 Opportunities may exist to provide new natural landscape features to enhance the local landscape or contribute to existing landscape character. Such features may include water bodies, woodland, copses, hedgerows, and grassland areas. Restoration and after-use schemes should be integrated with green infrastructure projects at a wider spatial scale (for example at the sub-regional or district-wide scale), to benefit the landscape as a whole. This would further enhance wider community and environmental benefits in terms of, for example, more robust biodiversity networks, improved corridors or linkages for open space, natural areas, biodiversity, and Public Rights of Way, as well as improved opportunities for outdoor recreation.

Heritage

- 3.231 Site restoration may enable improved access to historic sites, enhance the setting of historic features and/or provide the opportunity to present the results of archaeological investigations to the general public. Arrangements for the

conservation of geological or other features of interest should comply with best practice advice.

Climate Change

3.232 Site restoration provides an opportunity to create features that can help with mitigation or adaptation to the impacts of climate change (see Policy S3: Climate Change). Restoration may incorporate water management schemes (such as sustainable drainage, flood water storage, flood resilience measures, public water storage and irrigation), new areas of natural vegetation for carbon absorption, or the provision of natural landform or shade. These possibilities should be explored to help build the future resilience of the County.

Green and Blue Infrastructure

3.233 Restoration schemes must take into account green and blue infrastructure studies within Essex, alongside retaining a focus on priority habitat provision. The quality of life, health and wellbeing of residents, workers and visitors and the quality of the natural environment will be protected and enhanced. This will be achieved through maintaining, enhancing, connecting and expanding green and blue infrastructure. Consideration will be given to creating and enhancing networks of habitats, sustainable transport, greenway routes and water courses. These networks also contribute to reducing the impact of climate change by providing flood resilience measures and alternatives to using the private car. These can also assist in enabling healthier lifestyles.

Natural Capital

3.234 A Green Future: Our 25 Year Plan' (Defra, 2018) is predicated on the notion of enhancing natural capital, defined as the sum of our ecosystems, species, freshwater, land, soils, minerals, our air and our seas. Restoration proposals should take into consideration the six goals for environmental improvement, as set out in the 25 Year Plan. They should aim to value, conserve, and recover biodiversity whilst enhancing the natural environment. Proposals that may have significant adverse impacts on natural capital assets and services must demonstrate that they will avoid, minimise, mitigate, and compensate for significant adverse impacts, and deliver environmental net gain.

3.235 The MWPA will positively respond to any emerging guidance and legislation relating to the monitoring of natural capital through the use of nationally determined indicators.

Green Belt

3.236 The main purpose of the Green Belt is to prevent urban sprawl and to preserve 'openness'. Whilst this does not prohibit mineral development, proposals within the Green Belt would need to be carefully considered in light of their potential impacts, in line with the NPPF. Minerals can only be worked where they occur,

and where mineral development is situated in the Metropolitan Green Belt, the whole of the proposal (including after-use) shall comply with national policy.

Bird Strike

3.237 Mineral workings restored by landfill materials or, particularly, to water uses or wetland habitat, may attract large numbers of birds. Any planting schemes as part of the restoration should consider if the species selected would attract large flocks of birds. These may be a safety hazard to aircraft at sites close to airports and aerodromes because of bird strike. Applicants and the MWPA shall consult airport operators and military base authorities for their views before finalising restoration and after-use proposals.

Policy S12 - Mineral Site Restoration and After-Use

Proposals for minerals development will be permitted provided that it can be demonstrated that the land is capable of being restored at the earliest opportunity to an acceptable environmental condition to support Local Plan objectives and/or other beneficial after-uses, with positive benefits to the environment, biodiversity and/or local communities.

Mineral extraction sites shall:

1. Be restored using phased, progressive working and restoration techniques;
2. Provide net biodiversity gain following final restoration, demonstrating their contribution to priority habitat creation and integration with local ecological networks;
3. Only be infilled with imported materials at a scale necessary to achieve a beneficial restoration that outweighs any harm caused;
4. Provide a scheme of aftercare and maintenance of the restored land, including its ongoing stewardship, for a period of not less than five years to ensure the land is capable of sustaining its proposed after-use;
5. Where appropriate, proposals shall demonstrate the best available techniques to ensure that:
 - a) Soil resources are retained, conserved, and handled appropriately during operations and restoration;
 - b) In the case of minerals development affecting the best and most versatile agricultural land, the land is capable of being restored back to best and most versatile agricultural land, though the proposed after-use need not always be for agriculture;
 - c) Hydrological and hydro-geological conditions are preserved, maintained, and where appropriate, managed to prevent adverse impacts on the adjacent land's groundwater conditions and elsewhere;

- d) Flood risk is not increased;
- e) Important geological features are maintained and preserved;
- f) They enhance the form, quality of local character, and local distinctiveness of the landscape;
- g) Land stability is maintained;
- h) Any loss of, or harm to, the significance of a heritage asset (from development within its setting, or from its destruction or alteration) has been addressed, in a manner proportionate to its importance and the development's impact;
- i) Adverse effects on the integrity of local wildlife habitats, and wider ecological networks, including the hierarchy of international, national and locally designated sites are avoided, either alone or in combination with other plans and projects;
- j) Restoration schemes incorporate climate resilience measures;
- k) Community benefits are delivered, including new or improved corridors or linkages for open space, natural areas, biodiversity, and Public Rights of Way, as well as new or improved opportunities for outdoor recreation.

Proposals shall demonstrate that there will not be an unacceptable adverse impact on groundwater conditions, surface water drainage and the capacity of soils for future use. Proposals shall also have regard to any relevant Surface Water or Shoreline Management Plans. Proposals will also demonstrate that the working and restoration scheme is appropriate, and the implementation and completion of restoration is feasible.

Restoration schemes shall reflect strategies across Essex, including Local Plan objectives for growing natural capital and Green and Blue Infrastructure Strategies, or equivalent, where relevant.

Spatial Vision: Policy links to the delivery of vision themes E, H and J.

Strategic Objectives: Policy links to the delivery of objectives 1c, 3b,7b and 7c.



4.0 The Approach to Identifying Preferred Mineral Sites for Primary Mineral Extraction

The Approach to Identifying Preferred Mineral Sites for Primary Mineral Extraction

Sand and Gravel Requirements

- 4.1 The Strategy sets out the plan requirements for the provision of primary minerals for the County for the 15-year period covering 2025 to 2040 with at least a seven-year landbank in place for sand and gravel thereafter. The provision made ensures an adequate and steady supply of minerals for land won sand and gravel and silica sand. Policies S6 provides the policy framework for this, and the approach to identifying the requirements for the County is presented in the Forecasting the Need for Mineral Provision in Essex 2025-2040 RMLP Topic Paper.

Policies P1 and P2 - Preferred Sites for Sand and Gravel and Silica Sand Extraction

- 4.2 To provide for the mineral requirements outlined in Policy S6, the Council will allocate sites for mineral extraction in a future RMLP. The Council has not yet determined which sites should be allocated for future minerals extraction, therefore allocation policies (formerly Policies P1 and P2) are not presented within this Regulation 18 version of the RMLP. Allocations policies will state that the principle of extraction has been accepted and the need for the release of mineral proven. They will further state that the MWPA will grant planning permission for sand and gravel workings within the allocations listed, in a following table and as will be shown on the Policies Map. The policy will conclude by qualifying that any grant of planning permission will be subject to the proposal meeting any detailed development requirements, set out alongside the relevant allocation, as well as other relevant policies of the Development Plan for Essex and any other material considerations.
- 4.3 In March and November 2022, the Council undertook two ‘call for sites’ exercises, which invited sites to be submitted for consideration as potential future minerals development site allocations, in the RMLP. Following initial assessment, 52 candidate sites continue to be promoted for potential allocation through the site assessment process.
- 4.4 Not all of these 52 remaining candidate sites will be appropriate or needed to be allocated for minerals development, to meet the County’s mineral requirements. The MWPA is therefore currently assessing these submitted sites and the remaining undeveloped allocations from the MLP 2014, to determine which sites should be selected as site allocations in the RMLP. The first stage of assessment has been completed for public consultation and is presented within the ‘Assessment of Candidate Sand and Gravel Sites’ report. This Assessment has been undertaken by independent consultants, with technical support from ECC officers and consultants from Place Services. The Assessment has assessed all potential sites using a methodology to consider their suitability, in principle, for future mineral extraction. The Assessment report is a presentation of the assessment findings from the independent

consultants and **does not** provide recommendations regarding which sites should be allocated in the RMLP.

- 4.5 To support and inform the site allocation process, the Council is seeking views, through this Regulation 18 consultation, on the site assessment methodology and the application of the methodology to assess individual sites, as presented within the ‘Assessment of Candidate Sand and Gravel Sites’ report. The Assessment can be viewed on the ECC website within the RMLP evidence base.
- 4.6 Following this consultation, representations will be taken into account and amendments will be made to update the ‘Assessment of Candidate Sand and Gravel Sites’ report. The individual assessments of the candidate sites will be updated, as necessary, in light of the comments received. The re-graded assessment will then inform the selection of sites to be proposed for allocation within the Regulation 19 public consultation version of the RMLP. The site-specific detailed assessments in the report will be the primary method through which sites will be selected as preferred sites. There is also a need to take strategic planning issues into consideration, in order to serve the growth needs of Essex as a whole. This includes the spatial distribution of sites and when within the Plan period they would be expected to be worked.

A large pile of brown soil or sand is contained within a blue tarp. The soil is piled high, with some shadows cast across its surface. In the background, several other similar blue tarps are visible, some containing more soil. The scene appears to be outdoors, possibly at a construction or agricultural site. The text "5.0 Development Management Policies" is overlaid on the image in white, bold font.

5.0 Development Management Policies

Development Management Policies

Development Management Criteria

- 5.1 Mineral development, particularly mineral extraction, can have a considerable impact on its surroundings and this must be carefully considered. The impacts on the quality of life of local people and on the environment are key considerations when deciding where to locate new minerals development. A wide range of potential adverse impacts can arise and the specific nature of these impacts and the ways of addressing them will vary case by case. The planning policy framework provided by this Plan is considered flexible enough to deal with the variety of issues that may arise as well as variations in local circumstances.

Relevant Issues to be Considered

- 5.2 Whether proposals for mineral development come forward for determination in the form of standard planning applications, or as Review of Old Mineral Permissions (ROMP) applications for new schedules of conditions, the impact of proposals on the environment and amenity must be carefully assessed and considered by the MWPA. The following guidance is intended to assist developers in the preparation, design and submission of proposals which achieve high quality standards of development.

Transport

- 5.3 The transportation of minerals can potentially lead to substantial adverse impacts on the local environment. For example, the Essex coast is internationally designated for sensitive wildlife and habitats and proposals shall be required to be supported by an ecological assessment of potential impacts to avoid adverse effects on the integrity of these sites.
- 5.4 Once extracted, it is necessary to move minerals either to other sites for processing or to the customers who require them. Therefore, quarries within the Plan area are generators of HGV traffic, leading to noise, air pollution, vibration, dust and a potential road safety hazard. The MWPA will seek to encourage and, where practicable, enable the carrying of material by water and rail wherever possible. This would reduce carbon emissions from minerals transportation and lessen the contribution of minerals transportation to climate change.
- 5.5 Proposals for minerals development where the traffic is significant in both volume and area of impact shall be required to be supported by a transport assessment of potential impacts. This should include the movement of minerals within and outside the site, emissions control, energy efficiency and local amenity issues including impacts on highways safety and congestion. A transport assessment may need to include an assessment of potential air quality impacts to avoid adverse effects on the integrity of Habitats Sites. Where necessary the provision of a Site Transport Plan setting out the

developers' mechanisms to control traffic movements within the locality will be encouraged in consultation with local communities. A Site Transport Plan deals with issues including routeing, hours of mineral-related traffic movement and ensuring considerate driving to help minimise the environmental impacts of transporting minerals. Developers should also have regard to the ECC Development Management Policies (February 2011).

Pollution and Amenity Impacts

- 5.6 Minerals development can cause concern to residents, local communities and the environment because of noise, dust, fumes, vibration, illumination and debris on the highway from vehicle movements. When considering planning applications, the MWPA must be satisfied that those potential adverse impacts have all been satisfactorily investigated and addressed.
- 5.7 Levels of disturbance will vary according to the nature of the proposed development, the stage minerals development has reached and the relationship to the surrounding area. Some sites operate with very little plant or equipment and cause minimal impacts. Other developments are more major and can produce significant potential impacts which must be fully understood and fully addressed by the applicant in any planning application.
- 5.8 Factors to be taken into account include:
- The proximity of the proposed development to homes, schools, Habitats Sites and other sensitive and incompatible land-uses,
 - The location and siting of plant and other ancillary development,
 - The topography of the site and the surrounding area (including natural and man-made features which can reduce impacts, such as landscape features), and,
 - The site's relationship with roads, railways and waterways.
- 5.9 Local amenity can be protected by minimising work in sensitive areas and creating 'buffers' between residential areas and mineral workings. A minimum of a 100m 'buffer zone' from the extraction face to the wall of a residential property would normally be required to minimise the impact of working on local amenity.
- 5.10 Many potential pollution impacts can be overcome by using measures to remove or reduce emissions at source, or by adopting appropriate working practices. Examples of these measures include:
- Controlling working hours,
 - Locating plant away from neighbouring developments,
 - Housing machinery indoors or attaching silencers to plant,
 - Using water sprinklers to reduce dust, installing wheel washing for lorries, and,
 - Directing lighting downwards and away from properties.
- 5.11 However, the planning process should not seek to duplicate the requirements

of the pollution control regime, which is regulated by the Environment Agency.

Health and Wellbeing

- 5.12 A Health Impact Assessment (HIA) may be required to provide decision-makers with information about how a proposal may impact, directly or indirectly, on people's health. HIA in this context will be used to assess the possible significant health effects of a minerals development site, and this will be affected by a variety of influences including transport routeing, dust, noise, safety and local environment considerations. The HIA can then be analysed with its recommendations informing developers and the planning authority.
- 5.13 If any of these impacts cannot be satisfactorily mitigated against, development should not proceed. The HIA should connect with other impact assessments, including those associated with the environment and transport. An Environmental Impact Assessment may be required in support of a planning application, which would consider health impacts and also satisfy the requirements of HIA.

Flooding, Water Resources and Water Quality

- 5.14 Minerals development has the potential to impact upon surface water features such as rivers, ditches and lakes, groundwater levels, groundwater movement and has the potential to affect areas at risk of flooding. It is important that all such potential impacts are investigated and addressed. Any dewatering must not increase downstream flood risk and consideration must be given to the impact that rainfall will have on the rate and volume of discharge from the site. Evidence demonstrating that the dewatering process will not affect flood risk should be included within a surface water drainage strategy that accompanies any application. Where possible, consideration should be given to pausing dewatering activities following rainfall events in excess of the magnitude of a one in one-year event. Companies can only proceed without a Bespoke Discharge Permit, issued from the Environment Agency, if the discharge is clean water, containing no suspended solids (silt), and the discharge activity does not last for more than three consecutive months in total. The discharge must be made to surface water, such as a river, stream or the sea, and the company must have a method statement to minimise the risk of pollution. In all other circumstances, a permit is now required.
- 5.15 The PPG sets out national guidance to be followed in relation to flood risk. It requires that the sequential and exception tests are applied in relation to minerals development proposed in areas at risk from all types of flooding. Surface water flood risk guidance exists in the EA's Risk of Surface Water Flooding Maps and ECC Surface Water Management Plan, as addressed in the Strategic Flood Risk Assessment (SFRA), whilst Fluvial and Coastal flood risk is highlighted in the EA's Flood Map for Planning, Zone 2 and 3. It is noted that sand and gravel working is 'water compatible development' and mineral working and processing is 'less vulnerable' to flood risk. The MWPA will apply this guidance when assessing and determining planning applications for proposed minerals development in flood risk areas.

- 5.16 As stated earlier in the supporting text of Policy S12, Essex County Council has a strategic role in overseeing the management of local flood risk, that is flooding from surface water runoff, groundwater, and ordinary watercourses. Its powers now include working with organisations such as the Environment Agency and water companies and developing Surface Water Management Plans for managing surface runoff, groundwater, and ordinary watercourses throughout Essex. It must also be ensured that developments drain in a manner which does not increase flood risk elsewhere, as well as trying to reduce the overall risk of flooding wherever possible. A number of inter-related flood and water management strategies have been produced in Essex which seek to improve our understanding of surface water flood risk with the ultimate aim of reducing risk where possible. These include the Preliminary Flood Risk Assessment, used to designate Flood Risk Areas where there is significant flood risk, and Surface Water Management Plans which outline the preferred surface water management strategy in a given location. To prevent an increase in flood risk it is necessary to maintain the capacity of the floodplain and the free flow of floodwater. Increased risks of flooding associated with mineral working can be avoided by:
- Ensuring there is no net loss of floodplain storage area,
 - Managing the rate of surface water run-off from the site and releasing surface water run-off at an appropriate rate and volume to a watercourse or sewer,
 - Meeting the National and Local principles/-standards for SuDS design,
 - Ensuring that floodwater flows are not obstructed or impeded by earth bunds, ancillary structures, or stockpiles.
- 5.17 There may also be the potential to provide additional flood storage areas and therefore reduce flood risk in the surrounding area. This could be particularly advantageous when carrying out prior mineral extraction²⁰, in advance of built development, to create topographies to provide flood storage areas as well as offer sustainable drainage benefits.
- 5.18 Surface water and groundwater provide fresh water supplies which support the resident population, wildlife and the environment. This water is used for drinking, cooking, washing, agricultural and horticultural irrigation, manufacturing processes, recreational purposes and is essential for biodiversity and the landscape.
- 5.19 Essex on the whole has a very low vulnerability to water contamination, however, the north-western part of the County has a high vulnerability and is a designated Source Protection Zone. Mineral extraction, processing and aggregate recycling all have the potential to have adverse effects on the quality of groundwater, if not regulated correctly. If mineral extraction takes place in an area of high vulnerability, and de-watering is involved, this can have the direct effect of a loss of water from the local groundwater system, and a loss of storage capacity within the remaining saturated zone. Mineral processing and recycling can involve high usage of water, which can become contaminated

²⁰ To prevent mineral sterilisation in accordance with Policy S8 – Safeguarding Mineral Resources and Mineral Reserves

and subsequently affect any nearby groundwater sources if not managed properly. When considering proposals for mineral extraction it is expected that due regard will be made to the Water Framework Directive and relevant river basin management plans to ensure that it does not cause deterioration in the status of any water bodies.

- 5.20 Measures must be taken to protect these natural assets from the adverse impact of minerals development by:
- Ensuring there will be no significant change to the water environment, including potable water sources, as regulated by other regulatory bodies,
 - Carrying out detailed hydrological and hydro-geological assessments to establish the base line position and ensure operations are appropriately designed, monitored and managed,
 - Preventing the pollution of ground and surface water by chemicals and other contaminants. A considerable amount of water can be used when processing aggregates. Drainage during site operations and any discharge to local watercourses, must be controlled to comply with standards set by other regulatory bodies.
- 5.21 Consultation with the relevant regulatory bodies will be undertaken where there is a risk of pollution or any other identified impact(s) on the water environment.
- 5.22 Minerals development in proximity to the coast may have the potential to impact upon flooding from the sea. Regard, in this respect, should be had to the Essex and South Suffolk Shoreline Management Plan.

Visual and Landscape Impact

- 5.23 Minerals development can result in significant changes to the local landscape, not only while mineral working is in progress, but also over the longer-term depending on local circumstances. Changes may appear adverse whilst operations are underway but can be of benefit in the longer term if the working programme, restoration and after-use have been considered thoroughly. When excavation takes place over many years, impacts on the landscape will change as phased working progresses and as landscaping and screening grows and adapts. Whilst temporary landscape works such as bunds or earth mounds will affect the appearance of an area, they are usually essential to reduce local visual and noise impacts or allow valuable soils to be stockpiled for future use.
- 5.24 There are two areas of Outstanding Natural Beauty in Essex at Dedham Vale and Suffolk Heaths and Coast, which are both nationally important landscapes. There are also important areas of ancient woodland across Essex, often with veteran trees.
- 5.25 The undeveloped Essex coast is a unique feature of the County and is important for its landscape quality as well as biodiversity and heritage features. The pattern of river valleys crossing Essex towards the coast is also a distinctive landscape feature. All of these landscape features will be strongly protected from any adverse impacts arising from minerals development. The

intrinsic character and beauty of the Essex countryside should be recognised in preparing proposals for minerals development.

5.26 Mineral development in the countryside should pay particular regard to the local landscape and should aim to protect and enhance this, including through restoration and after-use. The Landscape Character Assessments undertaken by the local planning authorities should be used by developers to inform the design and working programmes of their mineral proposals. Impacts on the landscape can be avoided, reduced or overcome by a variety of measures including:

- Safeguarding local features (such as significant topography, woodland, veteran trees, hedgerows and viewpoints) to retain biodiversity networks and provide part of the framework for restoration,
- Using planting schemes and landscaped bunds and mounds to screen minerals development,
- Early design and planting of appropriate native species to enhance landscape character, support biodiversity networks and provide mature features to be later incorporated into restoration proposals,
- The careful siting of plant and machinery, including providing this at low level and using colour recessive paint.

Biodiversity and Geological Conservation

5.27 There are numerous sites of biodiversity and geological interest in Essex and these will continue to be afforded strong protection. The County has important international and national designations, namely Special Areas of Conservation, Special Protection Areas, Ramsar Sites, National Nature Reserves, Sites of Special Scientific Interest, LoWS and Marine Conservation Zones. There are also important areas of ancient woodland and areas of particular geological significance, some of which are designated as Local Geological Sites.

5.28 The degree of protection afforded will be consistent with the site's status in terms of its national or local importance, the presence and status of any protected species which may be affected and the site's biodiversity and geological interest in the wider environment. The strongest protection will be given to nationally important sites. Minerals development located some distance from a designated area can still have an adverse impact, including through pollution, flooding, transport movements and changes to water tables or drainage patterns. An assessment under the Conservation of Habitats and Species Regulations, or its replacement, may be required to see if an 'Appropriate Assessment' is needed in relation to a Habitats Site. It must be ensured that there will be no adverse effect on integrity to these sites either alone or in combination with other plans and projects. A project-level Habitats Regulations Assessment will be needed for any sites not allocated in the RMLP.

5.29 A baseline ecological survey will be necessary where biodiversity features are present on a proposed site. Flora and fauna of intrinsic local importance can also contribute to a wider network of habitats which are important for the health

and viability of other flora and fauna. Such surveys are essential in identifying what exists on a mineral site and establishing whether such features should be retained and managed. The List of UK Biodiversity Action Plan Priority Habitats provides useful background information in this regard.

- 5.30 The Environment Act 2021 established the principle of environmental gain as a requirement of all development. The Act requires a mandatory minimum of 10% biodiversity net gain. Applicants are expected to assess the biodiversity baseline and the consequent net gain to be achieved using the extant version of the Government's published biodiversity metric tool at the time that the application is submitted. Biodiversity net gain delivers measurable improvements for biodiversity by creating or enhancing habitats in association with development and can be achieved on-site, off-site or through a combination of on-site and off-site measures.
- 5.31 Mineral proposals must still include measures to avoid or minimise adverse impacts on existing biodiversity and geological conservation interests and should consider the scope to protect and enhance them in the long-term. Any measures arising through delivering net-gain through the metric are not a substitute for protecting existing biodiversity assets. Possible mitigation measures include maintaining existing habitats on or near the site during the duration of mineral working, proposals for habitat creation as part of restoration and protecting key features during working (such as geological features or nesting grounds).

Heritage Assets

- 5.32 Heritage, or the historic environment, includes archaeology, buildings and structures, areas of historic landscape, conservation areas, historic parks and gardens, and battlefield sites. Essex's identity and sense of place is closely linked with its rich heritage. This is an irreplaceable resource which is vulnerable to damage or loss from development.
- 5.33 Listed buildings of historic, architectural, and cultural importance, and their settings, will be protected from significant adverse impact. Conservation areas which contain groups of listed buildings and other areas of historic interest will be similarly protected. The emphasis will be on preserving the physical structure, visual setting, and any features of special architectural or historic interest of a listed building, and to preserving or enhancing the character or appearance of a conservation area.
- 5.34 Applicants preparing proposals for mineral development should refer to Historic Environment and Historic Landscape Character Assessments, local plan evidence base studies, Historic England records and information held on the Scheduled Ancient Monument Record before submitting an application.
- 5.35 Information on archaeological sites and material in Essex is held in the Historic Environment Record. However, not all archaeological remains are known about and recorded. To safeguard presently unknown remains, an archaeological assessment should be carried out by the developer if an area is likely to be of high archaeological potential (as implied by the Historic Environment Record).

The assessment must be carried out before a planning application is submitted as this will help determine the suitability of the proposal, appropriate methods of working and suitable conditions if planning permission is granted.

Recreation and Right of Way Network

- 5.36 Minerals development can affect public rights of way, open spaces and informal outdoor recreational land. Public access to such routes and areas may be restricted for health and safety reasons and to prevent criminal damage. Where rights of way are affected, arrangements for their temporary or permanent diversion must be put in place as part of proposals. This will apply to definitive routes used by cyclists, horse riders and walkers that either cross or are close to a site. Restoration of mineral workings may provide an opportunity to provide new or enhanced rights of way and outdoor recreational uses.

Land and Soil Resources

- 5.37 Rural land which supports farming, horticulture and forestry should be protected during mineral working to ensure this valuable finite resource is available for future generations. In Essex the presence of mineral resources (especially sand and gravel) often contributes to the good quality of the agricultural land. The County contains extensive areas of grades 1, 2 and 3a farmland (known as the 'best and most versatile') which is considered an important national resource. Proposals for mineral working on higher grade agricultural land must protect these soils in order to enable the site to have the potential to revert back to productive agricultural use in the future.
- 5.38 Top-soil and sub-soil should be carefully removed and handled with care and stored separately during the preparation and working of a mineral site. This will support later land restoration to agriculture and other beneficial uses. The overall integrity of land and soil should be protected during working and long-term use of the site once it is fully restored.
- 5.39 Measures must be taken to ensure quarry sides are stable and will not result in subsidence either on or off site. Surrounding areas and properties must not be adversely affected by the effects of subsidence or land slippage. Where mineral sites adjoin roads, railways, bridges, or energy transmission routes, appropriate land margins must be provided to ensure the continued structural integrity of this vital infrastructure.

Potential Hazard to Aircraft from Bird Strike

- 5.40 Whilst the process of mineral extraction does not in itself attract bird populations, the restoration and after-use of workings may involve the creation of water features, nature reserves and berry producing plants, all of which have the potential to attract flocks of birds. This can increase the risk of bird strike for aircraft in the vicinity of airports/airfields leading to concern about aircraft damage or danger to life.

- 5.41 There are safeguarding areas around the Stansted and Southend airports which must be taken into account when considering future areas for minerals development and these must be fully considered by potential developers. There are smaller airfields in Essex used for business aviation, recreational flying and military activities where similar safeguarding considerations also apply.
- 5.42 Proposals for site working, restoration and after-use must give careful consideration to the form of working and landscaping, planting and water features if located within an airport/aerodrome/or military safeguarding area.

Cumulative Impact

- 5.43 Minerals development, especially primary extraction, can have a significant impact upon the environment and on communities. This impact can be magnified if there are a number of permissions granted for mineral development within close proximity, or if permission to extract is extended, resulting in many years of mining activity in one location.
- 5.44 Minerals development proposals which require an Environmental Statement (ES) to be supplied can be required to address cumulative effects within an area. This would ensure the overall effects of a proposal are considered within the context of historic, existing, newly permitted and planned mineral operations within a locality. In addition to the direct effects of a development, the ES should also cover indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, and positive and negative effects. A particular project may however give rise to a small number of significant effects and therefore only require a full and detailed assessment in one or two aspects of the local environment within the proposal to demonstrate how those impacts have been adequately addressed, mitigated or compensated for.
- 5.45 Cumulative impacts could arise if mineral sites in proximity to one another were worked at the same time, or if working in a particular area was to continue over a long period of time. The MWPA will take steps to minimise the cumulative impacts of future mineral working in the County through the spatial strategy and by choice of location and phasing of site working.
- 5.46 Potential applicants should consider what other existing and proposed development will take place under their control, or otherwise, in the area when formulating their own proposals to avoid unacceptable cumulative impacts. The MWPA will normally require a primary site to have extraction completed and be undergoing restoration before a new extension area is prepared for extraction. Other mitigation measures include a restriction on the number of HGV movements or the timetabling of such movements, undertaking pre-extraction landscaping works to reduce cumulative visual impacts and addressing needed junction improvements.
- 5.47 Where cumulative impacts have not been or are unable to be satisfactorily addressed through the application, the MWPA could have grounds to refuse permission for that development.

Planning Conditions and Legal Agreements

- 5.48 Planning Obligations, or Section 106 agreements, are legal agreements negotiated between local authorities and developers, or are unilateral undertakings made by developers. The use of planning obligations will be in line with the prevailing legislation, guidance, and policies of the County. Planning conditions are the terms under which planning permission is granted and will include conditions that must be adhered to during the operation of mineral development. For example, conditions can be placed on the maximum daily number of vehicle movements in and out of the site, no dust or mud beyond the site boundary, hours of operation and the direction, intensity and duration of any lighting.
- 5.49 The MPA will require developers to enter into planning obligations to make a proposed development acceptable where planning conditions alone would not be appropriate.

Policy DM1 - Development Management Criteria

Proposals for minerals development will be permitted subject to it being demonstrated that the development would not have an unacceptable adverse impact, including cumulative impact with other developments, upon:

1. Local amenity (including demonstrating that the impacts of noise levels, air quality and dust emissions, light pollution and vibration are acceptable),
2. The health and wellbeing of local residents, as well as the wider community, who could be impacted by operation of the development,
3. The quality and quantity of water (including flood risk) within water courses, groundwater, surface water, and coastal areas,
4. Drainage systems,
5. The soil resource from the best and most versatile agricultural land,
6. Farming, horticulture, and forestry,
7. Aircraft safety due to the risk of bird strike,
8. The safety and capacity of the transport network,
9. Public Open Space, the definitive Public Rights of Way network and outdoor recreation facilities,
10. The appearance, quality and character of the landscape, countryside and visual environment and any local features that contribute to its local distinctiveness,

11. Land stability,

12. The natural and geological environment (including biodiversity and ecological conditions for habitats and species),

13. The historic environment including heritage and archaeological assets and any contribution made by their setting.

It must be ensured that there will be no adverse effect on the integrity of Habitats Sites (internationally or nationally important wildlife sites) either alone or in combination with other plans and projects in relation to all minerals development. This must be demonstrated through a project level Habitat Regulations Assessment, which will be required for any future proposals requiring a decision under the RMLP, which fall within a Impact Risk Zone.

Spatial Vision: Policy links to the delivery of vision themes D and I.

Strategic Objectives: Policy links to the delivery of objectives 1c, 2a, 3a, 6a, 7a and 7b.

Policy DM2 – Planning Conditions and Legal Agreements

TO BE REMOVED - Now accommodated within Supporting Text to Policy DM1. This reference has been included to make clear that there was previously a 'Policy DM2', and to allow the previous Policy DM3 to retain its DM3 reference. This is to preserve policy numbering across public consultations, with policies to be re-numbered further into plan production.

Primary Processing Plant

- 5.50 Primary processing enables a higher value use of aggregates. Technological improvements in recent years allow smaller and more mobile plant to be brought onto relatively small mineral sites, and encouraging such on-site processing reduces the number of lorry movements on the road network. The importation of non-indigenous material may however increase vehicle movements and extend the overall life of a quarry. Therefore, restricting importation gives clarity to the working programme, the life of the quarry, and associated vehicle movements.
- 5.51 All applicants will be required to demonstrate how extracted mineral is to be used in an efficient way by making provision for on-site primary processing plant. Where there is an existing neighbouring proximate processing plant which could process the additional material without significantly impacting on its own working and restoration timetable, and would not result in unacceptable adverse impacts, this too may be considered a sustainable option.
- 5.52 It is recognised that limited imports from one mineral site to another could enable the blending of minerals to produce a broader range of construction products. This may be considered a way of making more efficient use of extracted mineral. However, there is a need to restrict the generation of additional and non-essential mineral movements to keep environmental and community impacts to a minimum.
- 5.53 Imports are therefore required to be justified on a site-by-site basis. The main use of the primary plant should be to continue to process the indigenous mineral that is extracted from within the host site's boundary. The primary plant is at that location by virtue of the mineral extraction that is taking place there and it will be expected to be removed upon completion of the restoration of mineral workings. This is to ensure that any such use is not permitted on a permanent basis where this would otherwise be unacceptable.
- 5.54 The movement of mineral between separate sites, without significant reason, is not normally considered acceptable, especially given the impact the additional HGV movements would have.
- 5.55 Careful consideration will be given to the siting of plant and buildings. Primary processing plant ancillary to extraction does not need 'express planning permission' where it is permitted by the General Permitted Development Order.

Nonetheless, in exceptional circumstances, particularly in exposed or sensitive locations, these 'permitted development' rights may be removed to control the siting, location, and impact of such plant at mineral sites.

- 5.56 Where no primary processing plant is proposed, details will be required of the proposed destination of the mineral for processing to demonstrate the material will be used in an efficient way.
- 5.57 Proposals for extension sites shall be expected to include the location of the existing processing plant and access arrangements within the planning application.

Secondary Processing Plant

- 5.58 Secondary processing plant, such as for mortar or concrete batching, the manufacture of coated roadstone (asphalt), block/tile/brick making and other concrete products appear on mineral, industrial and transshipment sites, are currently well spread across the County.
- 5.59 The future growth and development of Essex will require considerable quantities of concrete and asphalt. Concrete and Asphalt products are produced and manufactured at secondary processing facilities across Essex. These kinds of facilities include coated roadstone plant (asphalt), concrete batching plant, mortar plant, and bagging plant.

Coated Roadstone plant (Asphalt)

- 5.60 Asphalt is a vital product as it is used in many different applications. These include road construction and maintenance, pavements, airport runways, school playgrounds, car parks, most footpaths and cycleways, and the roofing of buildings.

Concrete and mortar products

- 5.61 Concrete is a similarly vital economic product used in a widespread manner across the construction sector. It is one of the world's most consumed products, being used for road construction, bridges, buildings and many other physical structures.

Bagging Plants

- 5.62 It is sometimes necessary to package aggregates at facilities. This serves to protect the product and allows easier transportation. Bagging plants include machinery that range from simple units which are manually operated to automated systems that fill and seal bags and then stack them onto pallets. In terms of type of location, they may be sited at extraction sites (and are therefore of a temporary nature), on industrial estates and at transshipment sites. These existing facilities are small-scale, widely distributed to serve Essex

and often co-located with other facilities.

- 5.63 Where primary processing plant is proposed at mineral extraction sites, there may be justification for secondary plant provided that the plant is utilising mainly indigenous mineral sourced from within the site and/or aggregates from the primary processing plant. Such secondary plant should be for a temporary duration and it will be expected to be removed from the land upon completion of mineral extraction, with the land subsequently restored to an appropriate after-use within a reasonable timescale following the completion of extraction. This is to ensure that any such use is not permitted on a permanent basis where this would otherwise be unacceptable.
- 5.64 Secondary processing plant ancillary to extraction does not need express planning permission where it is permitted by the General Permitted Development Order. Nonetheless, in exceptional circumstances, particularly in exposed or sensitive locations, these 'permitted development' rights may be removed to control the siting, location, and impact of such plant at mineral sites.

Policy DM3 - Primary and Secondary Processing Plants

Proposals for primary and secondary processing plant and equipment shall be located within the limits of the mineral site's boundary, where the plant would not have any unacceptable impact on local amenity, the surrounding environment and the efficiency and capacity of the road network.


Where it is demonstrated that the positioning of the primary and secondary processing plant within the boundary of the mineral site is not feasible, the exportation of mineral from the site shall not have an unacceptable impact upon amenity and/or the safety, efficiency, and capacity of the road network.

The minerals for processing and/or treatment shall be sourced from within the boundary of the mineral working within which the plant is located unless it is demonstrated that there are exceptional circumstances or overriding benefits from sourcing materials from elsewhere to supplement indigenous supply, subject to no unacceptable adverse impacts.

Unless there are overriding reasons for not doing so, permission for primary and secondary processing facilities on mineral sites will only be granted for a temporary duration so as not to compromise restoration of the site.

Spatial Vision: Policy links to the delivery of vision themes A and D.

Strategic Objectives: Policy links to the delivery of objectives 1c, 1d 4, 7a, 7b, and 7c.

A large yellow mining truck is shown in a quarry or construction site. The truck is viewed from a front-quarter perspective, showing its massive size and heavy-duty tires. A driver is visible in the cab. The background consists of a large, steep, rocky hillside under a clear sky. The text "6.0 Implementation, Monitoring & Review" is overlaid on the image in white, bold font.

6.0 Implementation, Monitoring & Review

Implementation, Monitoring and Review

Introduction

- 6.1 The RMLP must show how the Vision, objectives and core strategy will be delivered, by whom, and by when. It is important that all parties essential to the delivery of the plan, including landowners, mineral operating companies and developers are signed up to it.
- 6.2 The Local Aggregate Assessment (LAA) and Authority Monitoring Report (AMR) details the current mineral companies with whom ECC will be required to work with, their sites, whether the site is currently being worked or otherwise, such as its lying dormant, or whether the site remains an allocation where an application for mineral development will be made in the future. Allocated Sites for future mineral extraction will only be worked if brought forward by the respective mineral operator (with the landowners' support). The mineral operators will be required to secure planning permission for mineral extraction before they will be able to work the site. An allocation made in the RMLP, or set out in the LAA or AMR does not equate to a permission to extract.

Implementation

- 6.3 Subject to planning permission being granted, and based on the information provided by Site Promoters, the allocations would come into operation in a phased manner across the plan period. Phasing information was provided to the MWPA by Site Promoters via the call for sites engagements (March and November 2022). However, this is non-binding and the MWPA contends that it is more appropriate for the market to control the timing of the release of allocations as this will be subject to external market forces. Allocations where permission to extract has not been granted will however expire at the end date of this Plan unless a valid planning application to work all or part of the site has been received by the MWPA either prior to the end date of the MWLP or adoption of a RMLP, and the application has yet to be determined. In all other cases, the proposed site would need to be resubmitted as part of a future Call for Sites, assessed and be re-allocated within a future replacement plan.
- 6.4 The continued growth of the County should not be hindered by a lack of appropriate aggregates from Essex sources. The MWPA will seek to work closely with local stakeholders and the minerals and waste industry in order to provide appropriate advice prior to the submission of any application for new mineral infrastructure. The intention will be to ensure the efficient running of the planning process and guarantee that there is a continual flow of extracted mineral to facilitate growth supporting development. It is considered that the indicative phasing is such that sand and gravel will be available to serve the Essex market throughout the plan period.
- 6.5 Should mineral demand within Essex fall it is unlikely that this would result in the mass exportation of mineral outside of the county irrespective of the amount

of provision set out in this Plan. Minerals are not economic to transport significant distances by road and due to the pattern of infrastructure within the county, there is a necessary reliance on the road network for mineral movements. For economic reasons, it is also considered unlikely that a mineral operator would continue to excavate and subsequently stockpile mineral that could not be sold.

- 6.6 Key new infrastructure such as new roads or railheads are unlikely to be required to deliver the Vision and objectives of the spatial strategy other than specific sites needing to put acceptable access arrangements in place. However, the loss of existing rail facilities for aggregate handling could hinder the delivery of the Plan, and so the MWPA have safeguarded these facilities through policies in the Plan and will strongly oppose their loss without suitable replacement.
- 6.7 Other aspects of delivering the Plan include ensuring a greater use of recycled aggregate products through public sector procurement, and restored minerals sites contributing to the achievement of priority habitat creation targets. These matters have been discussed in detail in previous sections.

Monitoring and Review

- 6.8 Monitoring is important to understand the characteristics of an area, assessing the impact of policies upon this area and consequently whether the strategy is delivering sustainable development. The data collected through monitoring assists in informing the need for review, and subsequently any potential modifications, of the policies contained within this Plan.
- 6.9 The current MLP was adopted in 2014 and was based on the evidence available at the time of plan preparation. Data continued to be collated upon MLP adoption in 2014, and this new data has informed a revised evidence base to allow for the current MLP Review. In this way, there is a continual need to monitor what is happening to allow the Plan to respond in the most appropriate way.
- 6.10 The Council is required to produce an Authority Monitoring Report (AMR) to review the progress of Local Development Documents, such as the adopted MLP, against the milestones set out in the Minerals and Waste Development Scheme (MWDS) and assess the extent to which the policies in these documents are being achieved.
- 6.11 A comprehensive suite of performance indicators and targets has been developed to help inform the monitoring process and these will provide the basis for the AMR. These will integrate with national indicators and targets as appropriate, whilst if national indicators change then the monitoring framework will be amended to adjust to the new indicators. Where possible, these are based on existing indicators to allow long-term trends to be established.

- 6.12 Legislation²¹ was introduced on 6 April 2018, requiring, inter-alia, that Local Planning Authorities assess whether they need to revise a development plan and/or one or more of its policies at least once every five years and within five years of each previous review, as part of a monitor and manage approach to forward planning. Assessments need to consider any changes to local circumstances and national policy. The findings of intervening AMRs will assist in examining whether the objectives of minerals policies are being achieved, as part of a comprehensive review of the performance of the adopted MLP.
- 6.13 Monitoring Indicator data gathered through the AMR through the monitoring framework in this Plan will be used to ascertain whether the plan is being effective in its contribution to facilitating sustainable growth and development. Outside of the five-year mandatory review process, a second trigger is also in place. Should the AMR show that minimum landbanks are not being maintained (of at least seven years for sand and gravel, ten years for silica sand and 25 years for brick clay) the MWPA should consider whether a review of the adopted MLP is required or whether there are mitigating circumstances and publish the conclusion in the AMR.
- 6.14 Additionally, the NPPF includes the requirement to produce a LAA to assist in the planning of a steady and adequate supply of aggregates. The LAA is produced annually to aid in the monitoring of the adopted MLP including an assessment of a rolling ten year's average of sand and gravel sales, and this will be updated annually. For reasons of commercial confidentiality, figures are presented at the Greater Essex tier (which includes Southend-on-Sea and Thurrock), with the AMR then disaggregating these results to the Essex tier through the use of a proxy. The resulting averages will be compared to our planned provision and Permitted Reserves to ensure that Essex supplies appropriate amounts of mineral to facilitate sustainable development. The assessments made by the LAA will be taken into account when the RMLP itself is subjected to full review under the parameters set out in the preceding paragraph.

²¹ The Town and Country Planning (Local Planning) (England) (Amendment) Regulations 2017

Table 5: Minerals Local Plan Monitoring Framework

	Indicator	Related Policy	Target	Implementation	Data Source	Frequency of Monitoring	Responsibility
1	Production of primary land won aggregates in Greater Essex	Policy S6: General principles for Sand and Gravel provision	The need for aggregate at the Essex level is set at 3.98mtpa. The figure of 3.98mtpa is not a production target but will be a factor in assessing the relationship between sales and plan provision.	In industry control, influenced by market demands	Mineral industry data returns.	Annually (via established annual survey for AWP/ DLUHC and LAA)	ECC and mineral operators.
2	Production of recycled aggregates	Policy S5: Creating a Network of Aggregate Recycling Facilities, New Secondary Processing and New Transhipment Sites& Policy S4 Reducing the Use of Mineral Resources	Ensuring there is enough permitted capacity within the county to satisfy demand	Through granting of planning permission (subject to environmental considerations).	Environment Agency's Waste Data Interrogator (Using the methodology contained within Recycled Aggregate Data: Guidance on Assessing Levels of Recycled	Annually (via established annual survey for AWP/ DLUHC and LAA)	ECC and waste /mineral operators.

	Indicator	Related Policy	Target	Implementation	Data Source	Frequency of Monitoring	Responsibility
					Aggregates (May 2022) or its successors)		
3	Size of landbank in Greater Essex	Policy S6: General principles for Sand and Gravel provision	Maintenance of a seven-year landbank based on a production potential of 3.98mtpa	Assess the need to make further allocations/initiate a plan review on an annual basis	Mineral industry survey data and details of new permissions.	Annually (via established annual survey for AWP/ DLUHC and LAA)	ECC and mineral operators.
4	Locations of new aggregate recycling facilities in accordance with Policy S5.	Policy S5: Creating a Network of Aggregate Recycling Facilities, New Secondary Processing and New Transhipment Sites	Aggregate recycling facilities in proximity to key growth locations or otherwise in accordance with Policy S5	Planning authority will support in principle applications in accordance with Policy S5.	Planning applications and decisions.	Via the AMR process	ECC
5	Locations of new extractions in accordance with spatial strategy.	Policy S6: General principles for Sand and Gravel provision Policy P1: Preferred Sites for Sand and Gravel Extraction and Policy P2: Preferred Sites for	All permissions for mineral extraction to be on Preferred Sites as set out through allocation policies unless the applicant can demonstrate an overriding justification and/ or overriding	Planning authority will support in principle applications which accord with the strategy in accordance with Policy S6 and allocation policies	Planning applications and decisions	Via the AMR process	ECC

	Indicator	Related Policy	Target	Implementation	Data Source	Frequency of Monitoring	Responsibility
		Silica Sand Extraction	benefit for the proposed extraction, in accordance with Policy S6. allocation policies				
6	Number of safeguarded mineral transshipment sites lost to other uses.	Policy S9: Safeguarding Mineral Extraction Sites and other Mineral Infrastructure	No safeguarded depots/wharves lost to non-mineral development contrary to the advice of the MWPA	Safeguarded facilities to be identified by ECC within the AMR and Policy Map, and objections raised to non-mineral applications that would cause sites to be compromised or lost.	Non-Mineral planning applications, formal representations from the MWPA and LPA decisions	Via the AMR process	ECC and district, borough and city councils.
7	a) Area of safeguarded mineral deposits sterilised by non-mineral development. b) Area of safeguarded mineral deposits sterilised by non-mineral	Policy S8: Safeguarding Mineral Resources	No safeguarded mineral resource is lost to non-mineral development contrary to the advice of the MWPA	MSAs to be identified by ECC, and objections raised to non-mineral applications within them that would sterilise deposits above the prescribed mineral threshold set out in Policy S8	Non-mineral planning applications, formal representations from the MWPA and LPA decisions	Via the AMR process	ECC and district, borough and city councils.

	Indicator	Related Policy	Target	Implementation	Data Source	Frequency of Monitoring	Responsibility
	development contrary to the advice of the MWPA.			wherever it has not been demonstrated that it is not practical or environmentally feasible to extract them			
8	<p>Provision of land newly restored for priority habitat creation.</p> <p>a) Anticipated provision within application details (and committed to through planning permission):</p> <p>b) Actual provision following restoration of site, prior to being placed in aftercare.</p>	Policy S12: Mineral Site Restoration and After- Use	To create a minimum of 200 hectares of UK priority habitat through mineral site restoration	ECC to promote through DM process and in subsequent site monitoring.	Planning applications and decisions, and on-site monitoring of progress.	Via the AMR process	ECC and site operators.

	Indicator	Related Policy	Target	Implementation	Data Source	Frequency of Monitoring	Responsibility
9	Biodiversity net gain targets	<p>Policy S10: Protecting and Enhancing the Environment and Local Amenity;</p> <p>Policy S12: Mineral Site Restoration and After- Use; and</p> <p>Policy DM1: Development Management Criteria.</p>	To deliver minimum 10% biodiversity net gain	<p>ECC to produce biodiversity reports.</p> <p>Developers to monitor habitat in a Habitat Management and Monitoring Plan.</p>	<p>DEFRA Biodiversity Metric</p> <p>Natural Environment and Rural Communities (NERC) Act</p>	<p>February 2024 implementation, then continuously monitored in line with BNG Regs.</p> <p>30-year period for developers</p>	ECC and mineral operators



7.0 Glossary

Glossary

This glossary of terms used in this Document is not intended as a source for statutory definitions and should not be used as such. A more comprehensive planning glossary can be found at www.planningportal.gov.uk.

Also listed are links to some of the main legislation and guidance documents relevant to this Document.

Term	Definition
Adverse Effect on Integrity	Anything which undermines the coherence of the ecological structure and function of a Habitats Site which enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which the site is (or will be) designated may have an adverse effect on site integrity.
Aftercare (in terms of minerals and waste operations)	The steps to be taken following restoration to bring land to the required standard for its intended use once mineral working or landfill has taken place, and its subsequent maintenance.
Aggregates	Sand, gravel, crushed rock and other bulk materials used by the construction industry.
Aggregate Working Party	Established in the 1970's to identify and consider problems in the supply of aggregates. They provide technical advice in relation to the supply of, and demand for, aggregates (including sand, gravel and crushed rock) to the Secretary of State, local government and mineral planning authorities.
Ancient Woodland	Woodland that is believed to have existed from at least 1600AD.
Annual Monitoring Report	A yearly report submitted to the government by the Local Planning Authority/Minerals Planning Authority assessing progress with, and the effectiveness of, the Local Development Framework.
Apportionment (amount of minerals needed)	The splitting of national supply guidelines for minerals demand between Minerals Planning Authorities or sub regions.
Appropriate Assessment	The process and documentation associated with the statutory requirement under the Conservation of Habitats and Species Regulations 2017 as amended.

Term	Definition
Archaeological Assessment /Evaluation	An assessment of the potential archaeological interest of a site or building. This can be either a desk-based assessment or a field assessment, involving ground survey and small-scale pits or trial trenching carried out by professionally qualified archaeologist(s) looking for historical remains.
Archaeological Reserve	A non-statutory designation for protecting archaeological remains.
Area of Outstanding Natural Beauty	An area with a statutory national landscape designation, the primary purpose of which is to conserve and enhance natural beauty. Together with National Parks, AONBs represent the nation's finest landscapes.
Article 4 Direction	Direction removing some or all Permitted Development rights, for example within a conservation area or curtilage of a listed building. Article 4 directions are issued by local planning authorities.
Authority	Used in the sense of "local authority" or "local planning authority" (LPA), this normally refers to the district, unitary or county council which has direct decision-making responsibilities for planning matters.
Best and Most Versatile Agricultural Land	Land identified by the Department for Environment, Food and Rural Affairs (Defra) as falling within classification grades 1, 2 or 3a, based on the physical characteristics of the land and the limits these impose upon its agricultural uses.
Biodiversity Action Plan	A strategy prepared for a local area aimed at conserving and enhancing biological diversity.
Biodiversity Metric	A tool to calculate biodiversity net gain. The Metric assesses changes in biodiversity value (losses or gains) brought about by development or changes in land management.
Biodiversity Report	Report produced by planning authorities every five years, setting out progress on biodiversity policies and actions, including progress with biodiversity net gain.
Blue Infrastructure	Blue landscape elements are linked to water. Examples include pools, ponds and pond systems, artificial buffer basins, Sustainable Drainage Systems and water courses.
Borrow Pit	A temporary mineral working to supply material for a specific construction project.
Buffer Zone	An area of land separating certain types of development from adjoining sensitive land uses. Often used in relation to minerals and/ or waste development.
Bund	An artificial mound or embankment used to either screen a site from view or reduce noise emissions.

Term	Definition
Climate Change Adaptation	A response to the effects of climate change which seeks to reduce the vulnerability of both the biological and built environment to climate change effects.
Competent Person	A person who is able to evidence appropriate experience or qualifications for the task being carried out.
Conservation Area	Areas of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance.
Construction, Demolition and Excavation Wastes	Controlled waste arising from the construction, repair, maintenance and demolition of buildings and structures and the excavation of minerals. It mostly includes brick, concrete, hardcore, subsoil and topsoil, but can include timber, metal, plastics and occasionally special hazardous waste materials.
Core Strategy (Minerals Core Strategy)	Sets out the long-term spatial vision for the Local Planning Authority area and the strategic policies and proposals to deliver that vision.
County Council (Essex County Council)	The Local Authority responsible for waste and minerals planning functions in non- unitary, and non-national park, local authority areas.
Cumulative Impact	An impact on the environment, local community or economy caused by a number of developments in a locality, or a continuous activity over time, that together may have an increased impact.
Deconstruction	The selective dismantling of a building, specifically preserving mineral and other construction materials for re-use and recycling. It differs from demolition where a site is cleared of its building by the quickest and most cost-effective means.
Department for Levelling Up, Housing and Communities.	'Levelling Up, Housing and Communities' is the successor department to the Ministry for Housing, Communities and Local Government (MHCLG). It is an expanded department with a powerful new remit to promote community cohesion and equality, as well as responsibility for housing, urban regeneration, planning and local government. It provides policy guidance within the National Planning Policy Framework (NPPF), National Planning Policy for Waste (NPPW) and Planning Policy Guidance (PPG).
Development Management	The process whereby a Local Planning Authority manages development by considering the merits of a planning application and determines the application, having regard to the Development Plan and all other material considerations.

Term	Definition
Development Plan	The Development Plan for any given area is comprised of all policies in the relevant adopted Local Plans, including minerals and waste plans, neighbourhood plans and, in Greater London, the London Plan. It is a combination of these documents rather than a document itself. The components of a Development Plan are defined in section 38 of the Planning and Compulsory Purchase Act 2004.
Development Plan Documents	Development Plan Documents are those which form part of the Development Plan as set out above and are prepared by local planning authorities. They provide the policies through which the planning strategy of the area can be delivered. -specific allocations, policies map and, where needed, Area Action Plans.
East of England Aggregates Working Party	The Aggregates Working Party that Essex County Council is a member of through being the Minerals Planning Authority for the county.
Enforcement	Procedures by a Local Planning Authority to ensure that the terms and conditions of a planning decision are carried out, or that development carried out without planning permission is brought under control.
Environment	The specific local context of any allocation or existing piece of mineral infrastructure. This includes its natural, historic and more modern built characteristics.
Environment Agency	A government body that aims to prevent or minimise the effects of pollution on the environment and issues permits to monitor and control activities that handle or produce waste. It also provides up-to-date information on waste management and deals with other matters such as water issues, including flood protection advice.
Environmental Impact Assessment and Environmental Statement	Applicants for certain types of development, usually more significant schemes, are required to submit an environmental statement as part of the evidence informing a planning application. This evaluates the likely environmental impacts of the development, together with an assessment of how the severity of the impacts could be mitigated.
Equality Impact Assessment	An assessment made on a policy document to ensure that the policies contained within would not discriminate against any groups categorised as being disadvantaged or vulnerable.
Examination in Public	A term given to the public examination of Development Plan Documents

Term	Definition
Flood Risk Assessment	An assessment of the flooding risk in a particular area so that development needs and mitigation measures can be carefully considered.
General Permitted Development Order	A set of regulations made by the government for specified forms of development where express planning permission is not required.
Green Infrastructure	Green infrastructure includes parks, open spaces, playing fields, woodlands and also street trees, allotments, private gardens, green roofs and walls, sustainable drainage systems (SuDS) and soils. It can include rivers, streams, canals and other water bodies, although water-related infrastructure is becoming more known as 'blue infrastructure'.
Groundwater	An important part of the natural water cycle which is present underground within strata known as aquifers.
Habitats and Species Regulations	Legislation which protects wild plants, animals and habitats making up our natural environment.
Habitats Regulation Assessment	The assessment of the impacts of implementing a plan or policy on a Habitats Site. It considers the impacts of a land use plan against the conservation objectives of the site and ascertains whether any impacts would adversely affect the integrity of the site.
Habitats Site	Any site which would be included within the definition of Regulation 8 of the Conservation of Habitats and Species Regulations 2017 for the purpose of those regulations, including candidate Special Areas of Conservation, Sites of Community Importance, Special Areas of Conservation, Special Protection Areas and any relevant Marine Sites.
Historic England	Government advisors with responsibility for all aspects of protecting and promoting the historic environment. Historic England is responsible for advising the government on the listing of historic buildings.
Impact Risk Zone	Geographical zones mapped around each statutorily designated wildlife site which reflect the particular sensitivities of the features for which it is notified and indicates the types of development proposal which could potentially have adverse impacts.

Term	Definition
Industrial Minerals	Minerals which are worked for their commercial value, which are not aggregates (including sharp and soft sand, gravel, crushed rock), fuel (fuel minerals or mineral fuels) and are not sources of metals (metallic minerals). Industrial minerals in Essex are chalk, brickearth and brick clay. Not all of these are currently worked but all are safeguarded for their future potential to be worked.
Landbank	In the context of the MLP this is the sum total of all of a type of mineral permitted for extraction, in tonnes, divided by the plan provision rate. It is a theoretical 'amount' representing the number of years a particular mineral will last at the forecasted rate of use without any further additions to the landbank through further planning permissions. It is used as an indicator of supply.
Landraise	Activities such as infilling with inert waste which results in the final landform being at a greater height than the surrounding landform before development occurred.
Landscape Character	The distinct and recognisable pattern of elements that occur consistently in a particular type of landscape. It reflects particular combinations of geology, landform, soils, vegetation, land use and human settlement.
Lawful Development Certificate	A certificate issued by a Local Planning Authority, on application, stating that an existing or proposed use or other forms of development can be considered as lawful for planning purposes.
Listed Building	A building of special architectural or historic interest. Listed buildings are graded I, II* or II with grade I being the highest. Historic England is responsible for designating buildings for listing in England. See also Planning (Listed Buildings & Conservation Areas) Act 1990 at https://www.legislation.gov.uk/ukpga/1990/9/contents
Living Carbon Sink	Carbon Sinks are reservoirs which accumulate and store carbon compounds for an indefinite period, including removing carbon dioxide from the atmosphere. Living Carbon Sinks are natural reservoirs and include forests and reedbeds.
Local Aggregate Assessment	Aids in the planning of a steady and adequate supply of minerals by assessing historic sales data and accounting for all potential supply options. The assessment is produced by the Minerals and Waste Planning Authority and incorporates the advice of the relevant Aggregates Working Party.

Term	Definition
Local Development Documents	These include Development Plan Documents (which form part of the statutory Development Plan) and Supplementary Planning Documents (which do not form part of the statutory Development Plan). LDDs collectively deliver the spatial planning strategy for the local planning authority's area.
Local Development Framework	The Local Development Framework (LDF) is a term used to describe a folder of documents, which includes all the local planning authority's local development documents, other relevant authorities development documents, the Annual Monitoring Report and the SCI.
Local Development Order	An order made by a Local Planning Authority extending Permitted Development rights for certain forms of development, with regard to a relevant Local Development Document.
Local Geological Sites	A non-statutory regionally important geological or geo-morphological site relating to rocks, the Earth's structure and landform.
Local Plan	A Development Plan Document prepared by district and other local planning authorities, including minerals and waste planning authorities, to guide development in their administrative area.
Local Plan Regulations 2012	Govern the process by which local councils prepare Development Plan Documents and how these documents should be consulted upon.
Local Planning Authority	The local authority or council that is empowered by law to exercise planning functions. Often the local borough/district/city council. County councils are the authority for waste and minerals matters in two-tier areas which also have a local authority, such as in Essex.
Local Validation Checklist	The validation checklist is a list of national and local requirements which have to be submitted to a planning authority as part of a planning application, be it the Local Planning Authority or the County Planning Authority. All planning authorities are required to publish a validation checklist to help applicants submit the right information with an application. This ensures that the planning authority is able to deal with applications as quickly and comprehensively as possible. The checklist includes all potential requirements that a planning department can ask for and as such not all items within the checklist will be relevant to every type of planning application, so applicants should have pre-application discussions to establish the exact requirements on a site-by-site basis.
Local Wildlife Sites	Areas of land with significant wildlife value which have been locally designated and are set out in the local plan of the relevant city, district or borough.
Localism Act 2011	The Localism Act seeks to give effect to the Government's ambitions to decentralise power away from Whitehall and back into the hands of local councils, communities and individuals to better work on local priorities.

Term	Definition
Low Level Restoration	The re-establishment of land following mineral extraction to a lower level with partial or no infilling of the void space created by extraction. Low level restoration includes re-contouring the void for ecological reasons or to blend it more effectively into the existing landscape without the need for infill.
Main Road Network	The road network excluding secondary distributor roads, estate roads and other routes that provide local access.
Material Consideration	A matter that should be taken into account in deciding a planning application or on an appeal against a planning decision.
Mineral Consultation Area	An area designated up to 100m around Mineral Safeguarding Areas, identified in order to ensure consultation with the relevant Minerals and Waste Planning Authority, on applications for non-mineral development located in close proximity to safeguarded land that may compromise the potential future working of that land.
Minerals Development	Any development primarily involving the extraction, processing, storage, transportation or manufacture of minerals. It includes associated minerals development such as rail aggregate depots, facilities for aggregate recycling, secondary processing facilities and coastal wharves for mineral transshipment.
Mineral Extraction	Refers to the winning and working (quarrying) of mineral. For the purposes of this plan it is also defined as Mineral Infrastructure/Mineral Development.
Minerals Hierarchy	The minerals hierarchy sets out the different approaches to the supply of minerals, and orders them in terms of their sustainability. The most sustainable option is to reduce the amount of minerals used, followed by sourcing minerals from secondary and recycled materials, and finally through the primary extraction of minerals.
Mineral Infrastructure	Mineral Infrastructure applies to mineral facilities that are involved in the working, recycling, processing, and distribution of mineral resources.
Mineral Infrastructure Impact Assessments	Minerals Infrastructure Impact Assessments assess both the potential impact of a non-mineral led development on proximal safeguarded mineral infrastructure, and the impact of the latter on the former, to understand what mitigation measures may be required such that the operations of the mineral infrastructure are not compromised. The assessment should be carried out at such a time as to be capable of informing the planning application that it supports.'

Term	Definition
Mineral Infrastructure Consultation Areas	Mineral Infrastructure Consultation Areas cover land up to 250m from safeguarded mineral infrastructure. Where non-mineral development is proposed within Minerals Consultation Areas, the appropriate Planning Authority must consult the Mineral Planning Authority and the application be informed by a Minerals Infrastructure Impact Assessment.
Minerals Local Plan	A statutory development plan prepared by a Minerals and Waste Planning Authority setting out policies for the minerals development.
Mineral Planning Authority	The planning authority responsible for planning control of minerals development. Essex County Council is the Minerals Planning Authority for Essex.
Mineral Products Association	National trade association for companies involved in the supply of minerals such as sand and gravel. Representatives are members of Aggregate Working Parties, and represent the industry as a whole. See http://www.mineralproducts.org/ for more information.
Mineral Resource	Minerals present in such quality and quantity that there are reasonable prospects for eventual economic extraction. Such land is covered by a Mineral Safeguarding Area designation but does not have planning permission to be worked and may not have been locally tested.
Mineral Reserves	Mineral deposits which have been locally tested to establish the quality and quantity of material present but which do not have permission to be extracted.
Mineral Safeguarding Area	An area designated by Minerals and Waste Planning Authorities which covers known deposits of mineral resource which are desired to be kept safeguarded from unnecessary sterilisation by non-mineral development.
Minerals & Waste Development Scheme	The timetable for producing Minerals and Waste Development Documents published by Minerals and Waste Planning Authorities.
National Highways	An executive agency of the Department of Transport. The Highways Agency is responsible for operating, maintaining and improving the motorway and trunk road network of England.

Term	Definition
National Nature Reserves	Areas designated with the aim of securing protection and appropriate management of important areas of wildlife habitat, and to provide a resource for scientific research. All National Nature Reserves are Sites of Special Scientific Interest.
National Planning Policy Framework	Sets out the Government's planning policies for England and how these are expected to be applied. It provides a framework within which local people and planning authorities can produce their own distinctive local and neighbourhood plans, which reflect the needs and priorities of their communities.
Natural Capital	Natural capital is a term for the ascribing an economic value of those natural assets, both renewable and non-renewable, such as plants, animals, air, water, soils, minerals that combine to yield a flow of benefits to people.
Natural England	An executive non-departmental public body sponsored by the Department for Environment, Food and Rural Affairs. Natural England is the government's adviser for the natural environment in England.
Non-allocated Site	Any site that comes forward through a planning application for mineral extraction that is not allocated as a Preferred Site through any site allocation policies.
Non-preferred Site	A site put forward for potential allocation at the site selection stage which informed the first iteration of the Essex Minerals Local Plan 2025 which was not selected for allocation in subsequent iterations.
Overburden	Soil and other material that overlay a mineral deposit, and which has to be excavated and either tipped or stockpiled to gain access to the underlying mineral.
Permitted Reserves	Mineral deposits which have been locally tested to establish the quality and quantity of material present and which also have planning permission for extraction. Such land would be covered by a Minerals Infrastructure Consultation Area that extends 250m from the full extent of the planning permission that grants extraction. The total permitted mineral reserve informs the landbank calculation.

Term	Definition
Permitted Development Rights	Development for which you do not need planning permission from the relevant planning authority. Permitted development is set out in the General Permitted Development Order and these Permitted Development Rights can be added or extended through Local <u>Development Orders</u> .
Planning & Compulsory Purchase Act 2004	Requires the production of Local Development Frameworks. This requires Development Documents to have a positive spatial strategy and vision for the authority at the end of the plan period, as well as policies for Development Management. See http://www.legislation.gov.uk/ukpga/2004/5/contents for further information.
Planning Inspectorate	The Planning Inspectorate is the government body responsible for: <ul style="list-style-type: none"> • the processing of planning and enforcement appeals • listed building consent appeals • advertisement appeals • reporting on planning applications called in for decision by the Secretary of State. • examinations of Development Plan Documents, compulsory purchase orders, rights of way cases; and cases arising from the Environmental Protection and Water Acts and the Transport and Works Act, and other highways legislation. The work of the Planning Inspectorate is set in agreement with the Department for Levelling Up, Housing and Communities and the National Assembly for Wales.
Policies Map	A map of the area which the associated Development Plan covers which highlights spatially the operating extent of the policies contained within.
Preferred Site	An area containing mineral resources which will be identified in a future iteration of this Plan which the Minerals and Waste Planning Authority are proposing for future allocation for mineral extraction.
Primary Aggregates	Aggregate (including sand and gravel and crushed rock) that has been extracted from the ground and has not been previously used in development
Priority Habitats	A range of semi-natural habitat types that were identified as being the most threatened and requiring conservation action. The original Priority Habitat list was created between 1995 and 1999 and revised in 2007

Term	Definition
Priority Species	Defined by the Secretary of State under Section 41 of the Natural Environment and Rural Communities Act 2006 as species which are of principal importance for the purpose of conserving biodiversity in England. The priority species list for England contains a total of 940 species.
Protected Species	Plants and animal species afforded protection under certain Acts and Regulations.
Public Right of Way	A Public Right of Way is a highway over which the public have a right of access along the route. Routes cannot be arbitrarily closed. Mineral development may require the temporary or permanent replacement or diversion of Public Rights of Way, but alternatives must be made.
Ramsar Sites	Sites designated under the Ramsar Convention to protect wetlands that are of international importance, particularly as waterfowl habitats.
Recycled Aggregates	Aggregates comprising waste materials (for example damaged bricks, broken concrete, brickwork, masonry and tarmac) from roads, construction and demolition sites that have been recovered and recycled in the form of manufactured materials such as concrete, brick, plasterboard and ceramic articles.
Restoration (in terms of minerals operations)	The method used to positively enhance a site once mineral extraction has ceased. This could be to restore the site to its original state or another suitable use, by filling the void to former levels, flooding the void, using low level restoration techniques, seeding, planting and/or establishing a built use.
Saved Policies / Saved Plan	Policies within unitary development plans, local plans and structure plans that are in force until such time as Local Development Documents are adopted.
Secondary Aggregates	Includes by-product wastes from industrial processes, synthetic materials and soft rock used with or without processing as aggregate or cement additives. Examples include incinerator ash and colliery spoil.

Term	Definition
Secretary Of State for Levelling Up, Housing and Communities	The lead Minister for all policies relating to Town & Country Planning, having powers of intervention on Development Plans and Planning Casework under certain circumstances.
Shoreline Management Plan	A Shoreline Management Plan (SMP) is a large-scale assessment of the risks associated with coastal processes and helps reduce these risks to people and the developed, historic and natural environments. Coastal processes include tidal patterns, wave height, wave direction and the movement of beach and seabed materials.
Site of Special Scientific Interest	A site identified under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000) as an area of special interest by reason of any of its flora, fauna, geological or physiographical features (basically, plants, animals, and natural features relating to the Earth's structure).
Source Protection Zone	The Environment Agency identifies Source Protection Zones to protect groundwater (especially public water supply) from developments that may damage its quality.
Special Area of Conservation	A site designated under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, to protect internationally important natural habitats and species.
Soundness	The tests of soundness are set out in the National Planning Policy Framework (NPPF): "The Local Plan will be examined by an independent inspector whose role is to assess whether the plan has been prepared in accordance with the Duty to Cooperate, legal and procedural requirements, and whether it is sound."
Spatial (Planning)	Spatial planning goes beyond traditional land use planning, bringing together and integrating policies for the development and use of land with other policies and programmes which influence the nature of places and how they function.
Special Protection Areas	Sites classified under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 to protect internationally important bird species.

Term	Definition
Statement of Community Involvement	The Statement of Community Involvement sets out the processes to be used by the Local Authority in involving the community in the preparation, alteration and continuing review of all Local Development Documents and development management decisions.
Statutory	Required by law (statute), usually through an Act of Parliament.
Statutory Body	A government-appointed body set up to give advice and be consulted for comment upon development plans and planning applications affecting matters of public interest. Examples of statutory bodies include: Countryside Agency, Historic England, Environment Agency, Health & Safety Executive, Natural England, Regional Development Agency, and Sport England.
Statutory Undertakers	Bodies carrying out functions of a public character under a statutory power. They may either be in public or private ownership and include the Post Office, the Civil Aviation Authority, the Environment Agency and any water undertaker, public gas transporters and suppliers of electricity, amongst others.
Sterilisation	When development or land use changes prevent possible mineral exploitation in the foreseeable future.
Strategic Environmental Assessment	SEAs integrate environmental considerations into the preparation and adoption of plans and programmes. They are required by the European Directive 2000/42/EC “on the assessment of the effects of certain plans and programmes on the environment” (the SEA Strategic Environmental Assessment Directive). Government guidance considers that it is possible to satisfy the requirements for Sustainability Appraisal and SEA through a single approach provided that the requirements of the SEA Directive are met. The environmental, economic and social effects of the plan are presented in the form of an iterative Environmental Report which informs each consultation stage of the Minerals Local Plan’s development.
Submission Document	A Development Plan Document submitted to the Secretary of State, following public consultation for independent examination by a government-appointed planning inspector.
Submission of Details	The formal submission of a scheme/information for the approval of the planning authority in order to address the requirements of a planning condition.
Supplementary Planning Document	A Supplementary Planning Document is a Local Development Document that may cover a range of issues, thematic or site specific, and provides further detail of policies and proposals in a parent Development Plan Document.

Term	Definition
Sustainable Drainage System	A drainage system which slows down rainwater run-off from a development and therefore minimising or preventing flooding events. Some SuDS can also remove pollutants from surface water run-off.
Sustainability Appraisal	Sustainability Appraisals examine the effects of proposed plans and programmes taking into account environmental, economic and social considerations in order to promote sustainable development in accordance with the Planning and Compulsory Purchase Act Sustainability Appraisal 2004 (as amended). Government guidance considers that it is possible to satisfy the requirements for SA and Strategic Environmental Assessment through a single approach provided that the requirements of the SEA Directive are met. The environmental, economic and social effects of the plan are presented in the form of an iterative Environmental Report which informs each consultation stage of the Minerals Local Plan's development.
Town & Country Planning (Local Planning) (England) Regulations 2012	The formal regulations setting out the scope of local development documents and the process for preparing them, including consultation, the examination of DPDs, publication and notification arrangements.
Traffic Assessment	<p>A Transport Assessment (TA) is to be required where there is likely to be a significant amount of traffic generated. This is defined as generating in excess of 50pcu (passenger car units) in the peak hour.</p> <p>PCU's are a Traffic Assessment calculation of all types of vehicles as car equivalents: an HGV is 2 car units. Mineral sites generate few car movements, but often significant volumes of HGV traffic. This can have major impacts on neighbouring residents and businesses and is often the cause of most local concern.</p> <p>A TA forms part of an Environmental Statement submitted with most applications requiring Environmental Impact Assessment (EIA). However smaller developments not requiring an EIA do not submit a TA.</p>
Traffic Impact Assessment	An assessment of the effects upon the surrounding area by traffic as a result of a development, such as increased traffic flows that may require highway improvements.
Transport Statement	A Transport Statement is required for smaller scale developments that would not have a major impact on the transport network but are still likely to have an impact at local level on the immediate transport network.

Term	Definition
Transshipment Sites	Consisting of rail depots and marine wharves, these are sites where significant quantities of minerals can be transported outside of the road network. This is economically more viable and generally more sustainable than transporting minerals long distances by road. They are included in the definition of mineral infrastructure and are safeguarded accordingly.
Tree Preservation Order	A mechanism for securing the preservation of single or groups of trees of acknowledged amenity value. A tree subject to a tree preservation order may not normally be topped, lopped or felled without the consent of the local planning authority.
Unauthorised Development	Development that has taken or is taking place without the benefit of planning permission. It may then risk being the subject of enforcement action.
Wildlife & Countryside Act (1981)	Mechanism for the legislative protection of wildlife in Great Britain. See https://jncc.gov.uk/our-work/wildlife-countryside-act/ for more information.
Wildlife Corridor	Strips of land (for example, along a hedgerow) conserved and managed for wildlife, usually linking more extensive wildlife habitats.
Windfall Site	A site not specifically allocated for mineral extraction but which becomes available for development during the lifetime of a plan. Mineral secured from such a site is added to the Permitted Reserve and therefore the landbank.



8.0 Appendices

Appendix One - Site Profiles

- 8.1 This Regulation 18 consultation draft of the RMLP does not include a list of 'Preferred Sites' for allocation as the methodology and its results are yet to have been published for public consultation.
- 8.2 All comments received through public consultation with regards to the site assessment methodology and its application will be considered and the methodology amended accordingly. Where required, this methodology will be reapplied to candidate sites, and sites will then be selected as 'Preferred Sites' for allocation as set out in the 'Assessment of Candidate Sand and Gravel Sites, 2022' report.
- 8.3 It is envisaged that Plan making will then proceed to a Regulation 19 engagement. This engagement will include a schedule of Preferred Sites based on the quantified need for sand and gravel, using the processes and criteria as set out in the 'Assessment of Candidate Sand and Gravel Sites, 2022' report, as modified where necessary based on any additional data and consultee comments received. The RMLP may also need to include additional sites should they be submitted as part of a future consultation. A decision on how to accommodate these will be taken as required.
- 8.4 For the Regulation 19 engagement, this appendix will be populated with maps showing the location of the allocations as well as data tables highlighting site characteristics such as address, size, an estimate of the amount of mineral to be extracted and an indicative timeframe for the works. Any site-specific issues that would be required to be addressed through a planning application will also be detailed here.
- 8.5 Please see the Site Assessment part of this Review, accessible through ECCs website, to view all of the candidate sites and their interim assessment results.

Appendix Two - The Implementation of Mineral Resource and Infrastructure Safeguarding Policy

- 8.6 This appendix includes further detailed information with regards to the operation and expectations with regards to the approach to be taken in relation to mineral resources and infrastructure safeguarding policy in the county.
- 8.7 It includes the mechanics of consultation between the Minerals and Waste Planning Authority and Local Planning Authorities, whether the development type is considered to be excluded or included for the purpose of safeguarding policies, how to apply appropriate thresholds when non-mineral development falls within the different mineral safeguarding designations and the type of issues to be addressed through evidence submitted to address mineral resource and infrastructure safeguarding policy.

Consultation between District, Borough and City Planning Authorities and the Minerals Planning Authority

- 8.8 Planning law requires that applications for planning permission must be determined in accordance with the Development Plan unless material considerations indicate otherwise.
- 8.9 Local government in Essex operates within a two-tier structure and it is important that there is policy consistency between the tiers. Mineral Safeguarding Areas (MSAs), Mineral Consultation Areas (MCAs) and Mineral Infrastructure Consultation Areas (MICAs) provide a means to ensure that appropriate policy dialogue takes place between Essex district/borough/city councils and the Minerals and Waste Planning Authority (MWPA) when local planning decisions are made.
- 8.10 Essex borough/district/city councils are responsible for the spatial planning of most land-uses within their areas. In accordance with Policy S8 and S9 of the Plan, the Essex district/ borough/ city councils (as a Local Planning Authority) should consult the MWPA (Essex County Council), and take its views into account before making a decision on planning applications for 'included development', as defined by Table 6, that are situated within MSAs, MCAs and MICAs, and which meet the relevant thresholds set out in RMLP Table 4. This is to ensure that safeguarded mineral interests are not needlessly sterilised or compromised by future non-mineral development.
- 8.11 Where land in an MSA, MCA and/or MICA is proposed for allocation through the Local Plan process, the MWPA would welcome early engagement with the LPA to understand how mineral safeguarding matters have been addressed in the site selection process ahead of any formal consultation procedure.
- 8.12 When consulted on development proposals within MSAs, MCAs or MICAs, the MWPA will be able to provide the LPA with its views regarding whether it is considered that a proposed development would cause unacceptable sterilisation of a potential or proven mineral resource within an MSA and/or MCA, or would prevent or prejudice the effective operation of safeguarded

mineral infrastructure subject to a MICA. In such circumstances, an objection may be raised to the proposed development. This process is carried out on a case by case basis with all proposals being considered on their individual merits.

- 8.13 As set out in Policy S8, where applications are made in MSAs and/or MCAs, and meet the relevant thresholds, it would be necessary for the development proposal to include a Minerals Resource Assessment (MRA). This is to enable the practicality and environmental feasibility of prior extraction to be assessed in order to avoid the unnecessary sterilisation of finite mineral resources. The MRA should be completed at such a time that its conclusions can inform the application and include a section detailing how mineral safeguarding matters were assessed as part of the design stage of the proposed development.
- 8.14 As set out in Policy S9, where applications are made in MICAs, a Mineral Infrastructure Impact Assessment (MIIA) is required to support the application, which again should be completed at such a time that it can demonstrably inform the application. In that respect, it is considered that LPAs should include the need for MRAs and MIIAs within their Validation Checklists and highlight their need in pre-application discussions.
- 8.15 For clarity and consistency, Essex district/borough/city councils should identify any safeguarded sites on their own Policies Map for their relevant administrative area. It is noted that the MWPA will be responsible for providing LPAs with the appropriate data.
- 8.16 Each response from the MWPA in relation to MRAs and/or MIIAs will 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, whether the practicality and environmental feasibility of prior extraction has been assessed in an appropriate context and whether it is clear that the MRA and/ or MIIA was carried out at an appropriate time such that its findings could influence the proposed development. Any mitigation which could address any adverse impacts would also be relevant, but mitigation required as part of the non-mineral development anyway shouldn't be attributed to prior extraction.
- 8.17 Following discussions with LPAs, the MWPA should jointly maintain a schedule of Local Plan allocations which sets out the progress, to date, with regards to the application of mineral resource and infrastructure safeguarding policies. This is to ensure records of safeguarding discussions are maintained from allocation to implementation.

Applying appropriate thresholds to the planning application consultation process

- 8.18 The Minerals Planning Authority recognises that it is appropriate to limit the safeguarding consultation process by filtering out certain types of application as it is neither practicable nor necessary for the MWPA to be consulted on all types of development proposals or emerging Local Plan allocations for potential impact on mineral resources or infrastructure. The following criteria set out in Part A and Part B act to screen out those types of development which are

excluded from the consultation processes required by Policy S8 and Policy S9.

Part A - Scale of Development Area

Mineral Safeguarding Areas and Mineral Consultation Areas

8.19 The Mineral Planning Authority will require the prior extraction of minerals where this is practicable and environmental feasible in MSAs before non-mineral development occurs on sites with the potential to sterilise mineral in an MSA equal or greater than:

- Five hectares for sand and gravel
- Three hectares for chalk
- Greater than a single residential curtilage for brickearth and brick clay

8.20 Mineral with the potential to be sterilised by non-mineral surface development equates to the sum of the area of land designated as an MSA which covers the area of the application site and land designated as an MSA which lies up to 100m beyond the application/allocation site. Where application sites and/or delivery phases are contiguous, they are to be treated as a single site for the purposes of calculating the amount of mineral potentially sterilised. Where otherwise contiguous parcels are split by infrastructure or narrow strips of land, whether they are to be treated as singular or multiple parcels will be assessed on a case-by-case basis.

8.21 Development proposals meeting these thresholds should then be assessed under Part B below. There is no requirement for Essex LPAs to consult the MWPA in respect of proposed development where the area of the MSA for the relevant type of mineral that has the potential to be sterilised is below the size thresholds set out in Part A.

8.22 Whilst it is recognised that developments below these thresholds have the potential to sterilise mineral, the MWPA wish to avoid imposing unrealistic requirements on developers to undertake detailed geological borehole and site investigation work on proposals or allocations for small scale development close or indeed below the minimum site threshold considered to be potentially viable to support prior extraction.

8.23 In these circumstances, safeguarding policy should still be applied as the mineral safeguarding provisions of the NPPF and local safeguarding policy are part of the Development Plan. As such, LPAs should not normally permit other development proposals in Mineral Safeguarding Areas if it might constrain potential future use for mineral working. As the determining authority, the LPA must weigh this provision in the planning balance as part of determining the application.

Mineral Infrastructure Consultation Areas

8.24 The size of the development is not a limiting factor when it comes to the application of Policy S9. MICAs are designated to safeguard existing,

consented and allocated mineral infrastructure, and developments of a certain nature of any size have the potential to compromise these. Impacts on operating, consented or allocated mineral infrastructure would likely act to undermine the Development Plan. As such, all proposals in MICAs are considered ‘included development’ subject to the outcome of Part B.

Part B - Types of Proposed Development

8.25 The table below shows which types of proposed development will be excluded or included within the MSA, MCA and MICA consultation arrangements following the test set out in Part A.

Table 6: Development Included and Excluded from Policy S8 and Policy S9

Development	MSA and MCA (Policy S8)	MICA (Policy S9)
Applications for development on land which is already allocated in adopted local development plan documents.	Included	Included.
Proposals for minor infilling of development within the defined settlement limits for towns, villages and hamlets identified in adopted local development plan documents.	Excluded	Included

<p>Applications for minor householder development including;</p> <p>Construction of a replacement dwelling where the new dwelling occupies the same or smaller footprint to the building being replaced;</p> <p>Minor extensions to existing dwellings or properties where they lie within the immediate curtilage and would not bring the built façade of the new building closer to the boundary of an existing or approved minerals development;</p> <p>Proposals for the provision of incidental and non-habitable structures lying within the curtilage of an existing dwelling (such as driveways, garages, car parks and hard standing).</p>	Excluded	Excluded
Proposals for the erection of agricultural buildings immediately adjacent to an existing working farmstead.	Excluded	Included
Applications for change of use	Excluded	Included
Applications for temporary buildings, structures or uses where it has been demonstrated through the planning application that the land is capable of, and is intended to be, returned to its former use.	Excluded	Included
Applications related to existing permissions such as for reserved matters, or for minor amendments to current permissions.	Included, but issues will not be revisited unless there has been a material change in circumstances.	Included
Applications for other kinds of consent – advertisements; listed building consent; Conservation Area consent and proposals for work to trees or removal of hedgerows.	Excluded	Excluded
Proposals for the demolition of a residential or other building.	Excluded	Excluded
Proposals for minor works such as fencing or bus shelters.	Excluded	Excluded

Proposal for any extension of and/or change to the curtilage of a property	Excluded	Excluded
Minor extensions to existing dwellings which are already within 250m of the boundary of an existing or approved minerals development	Excluded	Excluded

8.26 Development meeting the threshold of Part A and not excluded by virtue of Part B is considered to be ‘included development’ for the purposes of safeguarding policy.

When a Mineral Resource Assessment is Required (Policy S8)

8.27 Where the policy tests and thresholds of Policy S8 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 LPA, the prospective developer and/or the MWPA as relevant. The MWPA 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 proposed non-mineral development.

8.28 An inadequate or absent MRA, or any other failure to demonstrate compliance with safeguarding policy would likely be considered by the MWPA as being out of conformity with the Development Plan as it would be contrary to Policy S8. Without prejudice, an objection would likely be raised on this basis. Such an objection would be a material consideration in the determination of the application by the LPA.

The Scope and Level of Detail of a Mineral Resource Assessment (Policy S8)

8.29 The scope of the MRA, including a schedule of proposed borehole locations, should be agreed with the MWPA before commencement. It is expected that the MRA will be carried out by a competent person such as a minerals surveyor. Information informing the MRA must be representative of the whole site as reliance on limited data, for example poor borehole log coverage, is likely to result in an inaccurate assessment being undertaken. It is acceptable to utilise existing borehole information where this exists, but this may be required to be supplemented by additional borehole logs to provide the required level of site-specific detail. Bespoke borehole information may not be required if it can be demonstrated that prior extraction is not practical and/or environmentally feasible without recourse to such information. However, such an approach to MRA must be agreed with the MWPA as early as practical as the volume, quality, and economic value of mineral present at a site is likely to be fundamental to the consideration of whether it is practical to prior extract.

8.30 The scope and level of detail of a MRA will be influenced by the specific characteristics of the site’s location and its geology, as well as the nature of the development being applied for. However, a number of requirements have been

identified which are likely to satisfy the MWPA that the MRA provides a sufficiently detailed, evidence-based conclusion regarding the practicality and environmental feasibility of prior extraction. These are set out in Table 7 below. Where an MRA is intended as supporting information for an application made within an MCA, the MWPA will take a pragmatic view with regards to the scope of expected works, particularly with respect to intrusive ground investigation, where the land subject to the MSA designation is in different ownership.

Table 7: Example Requirements for a Minerals Resource Assessment

MRA Section	Matters to Cover
Site location, relevant boundaries, site history, and timescale for development	<p>Application area in relation to MSA/ MCA</p> <p>Description of development including layout & phasing</p> <p>Timescale for development</p> <p>Whether there is any previous relevant site history – this could include previous consideration of site or adjacent land in preparation of Minerals Local Plan, any previous mineral assessments and market appraisals, boreholes, site investigations, technical reports (including geological reports) and applications to the Minerals Planning Authority for extraction.</p>
Nature of the existing mineral resource	<p>Type of mineral</p> <p>Existing mineral exploration data (e.g. previous boreholes in area)</p> <p>Results of further intrusive investigation if undertaken</p> <p>Extent of mineral – depth & variability</p> <p>Overburden – depth & variability, overburden: mineral ratio. To be expressed as both actual depths and ratio of overburden to deposit, as well as variation across the site.</p> <p>Mineral quality – including silt %/content and how processing may impact on quality. Consideration should give given to the extent to which the material available on site would meet the specifications for construction.</p> <p>An assessment of the amount of material that would be sterilised (whole site area) and could be extracted (following application of any required buffer zones).</p> <p>Estimated economic/market value of resource affected</p>

	<p>across whole site and that which could be extracted.</p>
<p>Constraints impacting on the practicality of mineral extraction (distinct from those that would arise from the primary development)</p>	<p>Ecology designations, Landscape character, Heritage designations, Geological designations, Proximity to existing dwellings, Highways infrastructure, Proximal waterbodies, Hydrology, Land stability, Restoration requirements, Effect on viability of non-minerals development including through delays and changes to landform and character, Utilities present etc.</p> <p>Constraints should be assessed in light of the fact that construction of the non-minerals development would be taking place e.g. landscape issues are to be presented in light of the final landscape likely to be permanent built development. It is held that mitigation methods employed as part of the construction of the non-minerals development may also facilitate prior extraction at that locality.</p>
<p>How the MRA has informed the design process of the proposed non-mineral development</p>	<p>A brief timeline of the non-mineral proposal from its conception, incorporating:</p> <p>Evidence that a borehole informed MRA was carried out, at a sufficiently early time, to have allowed the conclusion(s) of the MRA to have a meaningful impact on the design of the non-mineral development.</p> <p>Detailing of when and how mineral safeguarding matters were assessed as part of the design of the proposed development.</p> <p>A record of how the design of the proposed development sought to reduce or avoid impact on the safeguarded resource.</p>

<p>Potential opportunities for mineral extraction at location</p>	<p>Ability of site to incorporate temporary mineral processing plant,</p> <p>Proximity to existing mineral sites or processing plant,</p> <p>Context of site and mineral within wider mineral resource area,</p> <p>Proximity to viable transport links for mineral haulage,</p> <p>The potential for indigenous material to be used in the construction of the proposed development, thereby reducing/removing the need for import,</p> <p>Potential benefits through mineral restoration e.g. land reclamation, landscape enhancement,</p> <p>Any opportunities for ancillary extraction as part of the primary development of the site such as foundations, footings, landscaping, sustainable drainage systems,</p> <p>Evidence or otherwise of interested operators/local market demand,</p>
<p>Conclusion (as relevant to the findings)</p>	<p>How the MRA has informed the proposed non-mineral development,</p> <p>Whether mineral extraction at the site would be environmentally feasible, based on the conclusions of a competent person,</p> <p>Whether mineral extraction is practical at the site in the context of the non-mineral development. This is to be based on a high-level financial appraisal of the value and costs of prior extraction, linked to the benefits/disbenefits of prior extraction in the context of the delivery of the proposed non-mineral development. The MWPA respects that matters relating to the viability of non-mineral projects are largely resolved in discussions with the LPA during the formation of their Local Plans and so a full financial appraisal of the viability of the non-mineral development is not expected.</p> <p>If prior extraction is practical and environmentally feasible, how this will be phased as part of, or preceding, the non-mineral development,</p> <p>If prior extraction is not practical and/ or environmentally feasible, the justification for sterilising the mineral. This is to include whether there would be the potential to work the land for mineral in the future. To ensure that piecemeal losses of finite resources are appropriately factored into the planning</p>

	balance, this is to be based on the extent of the MSA within which the application site resides. This assessment is not to be provided on just the application site itself.
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- 8.31 An MRA is expected to be evidence based and informed by quantified information.
- 8.32 To ensure that a comprehensive assessment of the mineral resource at risk of sterilisation is undertaken, it is recommended that:
- a draft borehole location plan is agreed with the County Council as early as possible and preferably as part of pre-application;
 - the borehole depths should be sufficient to prove the depth of the safeguarded deposit;
 - borehole analysis must note the depth of the water table; and
 - a non-stratified sampling technique is applied. An initial spacing of approximately 100m-150m centre to centre should be considered, with additional locations if required to determine the extent of deposits on site.
 - The MRA provides documented evidence confirming any commercial interest in working the resource at risk of sterilisation based on its quality, quantity, and viability of prior extraction.
- 8.33 The MRA should be prepared by suitably qualified persons using the Pan-European Standard for Reporting of Exploration Results, Mineral Resources and Reserves ([PERC](#)) Standard, which was revised and re-published in October 2021.
- 8.34 As previously stated, borehole logs do not have to be commissioned specifically for an MRA where they already exist but the coverage relied upon must be indicative of the site as a whole, taken from within the application boundary, initially be spaced 100m – 150m centre to centre, and conform to industry standards.

Concluding on the Findings of the Minerals Resource Assessment

- 8.35 Should the presence of a safeguarded mineral resource be confirmed, the MRA needs to set out clear conclusions as to the practicality and environmental feasibility of extraction of this mineral from the proposed development site by taking account of the amount (tonnage) and economic value of the mineral that will be sterilised. The area of land to be included as land subject to the test set out in Table 3 is that within the application site covered by the MSA designation and land up to 100m from the application site, also within an MSA designation. The MRA should then take into account the presence or absence of constraints to prior extraction, including those related to land ownership and the restoration required to facilitate the primary (i.e. non-mineral) development. Consultation by the applicant with local mineral operators can help to determine any commercial interest in undertaking prior extraction of the resource based on its quantity, quality and viability of prior extraction, both as a standalone activity and in the

context of having to restore the site to facilitate the primary development.

- 8.36 It is important to note that mineral safeguarding is designed to ensure that best use is made of finite mineral resources such that they can be sustained for as long as possible for use by future generations. The NPPF is clear that LPAs should not normally permit other development proposals in MSAs if they might constrain potential future use for mineral working. Prior extraction of these minerals ahead of non-mineral development would satisfy this requirement .
- 8.37 Mineral safeguarding is a conservation measure aimed at maximising the sustainable use of a finite resource. Conservation measures are typically assessed in the context of the development being proposed as a whole. Where prior extraction is ancillary to the non-mineral development and therefore capable of being permitted through a single application, it is held that assessments of the practicability of prior extraction should be considered holistically as part of the non-mineral development.
- 8.38 As such, any conclusion as to the practicality of prior extraction within an MRA is to be made in the context of the non-mineral development that is creating the sterilisation risk. Assessing the practicality of prior extraction as a standalone operation is to assess a false premise. Whilst it is appropriate to factor in specific restoration costs required to deliver the primary development into the consideration of whether prior extraction is practical, there are a number of potential economic, sustainability and legacy benefits for the proposed development that could be secured through prior extraction, and these should also be considered in the balance. These include the provision of proximal building material, the shaping of topographies, environments and landscapes that help create desirable places to live, opportunities for biodiversity net-gain and to grow natural capital, mitigation measures against climate change, and positive contributions to the health and wellbeing of communities through the provision of open space and recreational resources. The prior extraction of land that is being developed in any event reduces the pressure on the need to extract elsewhere so is an inherently sustainable measure.
- 8.39 It is important to note that the test required by national policy of whether prior extraction should take place is not explicitly linked to a financial profitability test in either the NPPF or PPG. It is however accepted that cost clearly has significant viability impacts, up to and including making the primary development itself unviable. Where the impacts that would be caused by prior extraction would erode the viability of the non-mineral development to the point that it would not be economic for the non-mineral development to proceed, the MWPA could accept such circumstances as demonstrating that prior extraction fails the test of being 'practical' which is one of the two tests set out in NPPF Paragraph 210d. This is however on the proviso that the prior extraction and non-mineral development have been treated holistically and the MRA demonstrates that a borehole-informed mineral assessment was carried out, at a sufficiently early time, to have allowed the conclusion(s) of the MRA to have a meaningful impact on the design of the non-mineral development. Whilst it is recognised that cost clearly has viability impacts, conservation measures are not inherently profit-making. That said, a significant net loss across the activity of prior extraction, following off-setting for any benefits of this activity, may

satisfy the MWPA that prior extraction is not practical. The NPPF places great weight on the importance of minerals, referring to them as 'essential', and decisions to be made on the basis of their long-term potential for extraction, and therefore such costs incurred would have to have a significant viability impact on the primary development for this to be accepted as the sole reason that it is not 'practical' to prior extract mineral. Best use of an essential mineral, as required by the NPPF, cannot be demonstrated to have been made if it is sterilised when it was practical and environmentally feasible, in the context of the development as a whole, to prior extract it.

- 8.40 Mitigation measures required to make the primary non-mineral development appropriate may also facilitate prior extraction at that locality. As such, mitigation measures required to facilitate the primary development should not be attributed to the cost balance of prior extraction itself. 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.
- 8.41 The MWPA does not require prior extraction to take place across the full extent of the development site, nor to the full depth of the resource, if this is not practicable. However, the maximum amount of extraction considered viable in the context of the development is encouraged to minimise the amount of resource sterilised.
- 8.42 It is again stressed that the MRA must demonstrate that it was carried out at such a time that its conclusions were capable of shaping the associated proposal. A failure to appropriately engage with the MWPA, and the resultant impact on project timescales, is not a legitimate reason to not comply with this aspect of the Development Plan. The MWPA may object to a development taking place if the MRA has not been carried out at an appropriate time as this, without prejudice, would likely be a departure from the Development Plan.

Practical Advice for Determining Planning Applications within Mineral Safeguarding Areas (Policy S8)

- 8.43 The following advice is taken directly from Minerals Safeguarding Practice Guidance, prepared by the Minerals Products Association and Planning Officers Society, April 2019, Paragraphs 4.39 and 4.40. Its repetition here provides a useful starting point upon which to base a practical approach:

“Where any working of minerals is considered ancillary to that of the main non-mineral development, extraction should be considered by the Local Planning Authority as part of the main application. In this scenario, the mineral working is likely to be considered as ‘ancillary development’. It may be concluded that only a portion of material may be extracted, prior to and during the development, through site preparation and ancillary to groundworks. This may be suitable for on-site use but also some may require to be exported. Ancillary extraction of small amounts of mineral, for example as part of site preparation or digging of foundations, would not normally require separate/standalone planning permission for mineral extraction. Use of materials on-site, and export of

excess, could be addressed through the terms of the permission and associated conditions or legal agreements. The County Council, as Mineral Planning Authority, would act as a consultee for such applications and it would be for the determining Local Planning Authority to oversee that the ancillary mineral extraction is carried out in accordance with the planning permission, with the support of the Minerals Planning Authority as appropriate.

Nonetheless, there may be occasions when large-scale built developments, such as garden towns, may not be planned to come forward for a number of years, providing the opportunity for mineral extraction to take place well in advance of such development. Such extraction proposals are likely to be County matters in two-tier areas given that any application would need to be a standalone minerals application – not being linked to any primary built development proposal. As with any planning applications, such applications may be refused or granted permission. In addition, consideration should be given to whether planning permission is required for the acceptance of the mineral at a processing plant should this be located at an existing quarry as receipt of this material may extend the life of the quarry.”

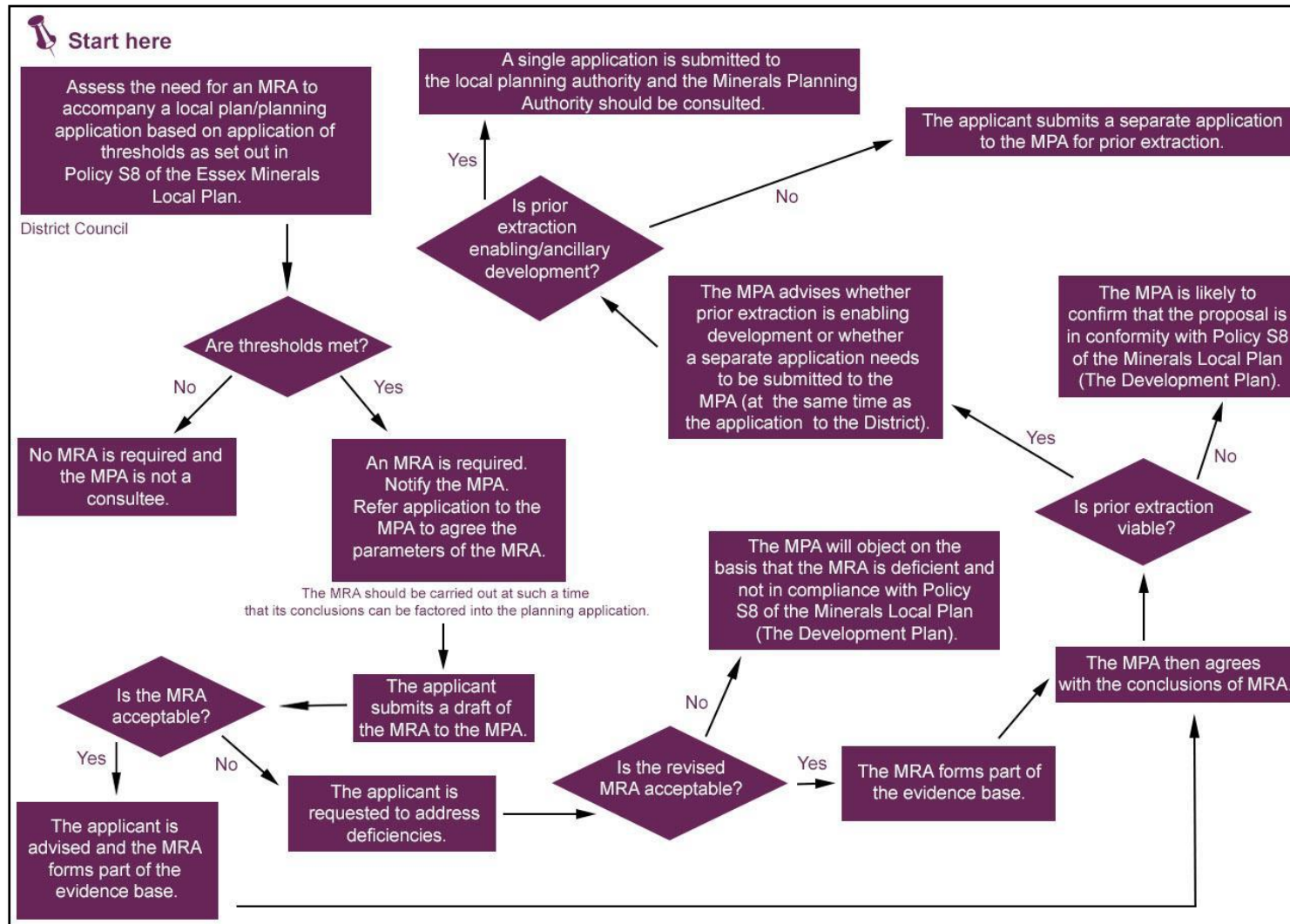
- 8.44 Schedule 1, Section 1 (Local Planning Authorities: Distribution of Functions) of the Town and Country Planning Act 1990 (1) defines the winning and working of minerals as a “county matter”²². With respect of this, and unlike within the aforementioned guidance, there is no breakdown in the Act of when and/ or if any kind of mineral extraction can, or should, be classed as ancillary development.
- 8.45 However, case law has established the substantial element test, as detailed at Section 3(2) of the same Act; that determination of any such application as is mentioned in sub-paragraph (1) of the Act are to be exercised by the county planning authority.
- 8.46 The MWPA are keen for prior extraction not to be seen or viewed as an undue barrier for development coming forward. In this respect, it is stressed that potential applicants should undertake an MRA (when required) as soon as possible and seek to get agreement on the conclusions of this with the MWPA.
- 8.47 In the event that an MRA is not submitted early in the process, the MWPA will not a) be able to review the findings until late in the evolution of the project and/ or b) advise, if prior extraction is proposed, whether the MWPA are content to accept the proposition as ancillary works or whether a separate application would need to be made to the MWPA. Either of these scenarios has the potential to result in delays in the determination process and/or require changes to the scheme as originally proposed and then likely re-consultation. It is again noted that a failure to appropriately engage with the MWPA, and the resultant impact on project timescales, is not a legitimate reason to not comply with this aspect of the Development Plan.
- 8.48 The MWPA have not put a threshold on when prior extraction may need to be considered as a separate development application rather than as ancillary

²² <http://www.legislation.gov.uk/ukpga/1990/8/schedule/1>

works, as this would need to be considered on a case by case basis. The MRA may however conclude on this matter. Where prior extraction of minerals is considered ancillary to that of the main non-mineral development, the LPA would be the determining authority. In these instances, the MWPA would provide comment on the mineral extraction proposals through the statutory consultation process.

- 8.49 Where any consideration of the prior extraction of mineral is linked to large-scale built developments, such as garden towns, where the delivery is many years in the future and/ or predicated on other development milestones, this is likely to be considered as a County Matter. Non-mineral development may not be planned to come forward for a number of years, providing the opportunity for mineral extraction to take place well in advance of such development. Such extraction proposals are likely to be County matters in two-tier areas given that any application would need to be a standalone minerals application rather than linked to the primary built development proposal. Under this scenario, two applications would be required to be submitted: one to the LPA and one to the MPA.
- 8.50 The following figure sets out the suggested process when a site allocation or non-mineral development is proposed in an MSA or MCA which falls under the definition of 'included' under Policy S8:

Figure 1: Process for when a site allocation or non-mineral development is proposed in an MSA:



The Appropriateness of Using Planning Conditions relating to prior extraction

- 8.51 It is the view of the MWPA that the activity of prior extraction must form part of the development being put forward for approval. A Planning Condition (for example requiring a prior extraction scheme to be submitted and approved, prior to commencement of the development) would, in the opinion of the MWPA, not meet the tests for planning conditions.
- 8.52 A planning condition should not be used to authorise development that would not itself be required ordinarily in the context of an application for planning permission for residential development. Furthermore, consultation would be required in respect of any prior extraction proposal to provide any consultees, including local/ neighbouring residents, the opportunity to comment on the proposals.
- 8.53 This does not however mean that conditions couldn't be imposed requiring any further detail related to the prior-extraction – such as landscaping or dewatering details. The key element is that a condition should not be imposed that would be effectively authorising prior extraction to take place as part of the housing development proposals. If extraction was found to be viable as part of an application silent on prior extraction, then the opinion of the MWPA would be that a fresh or amended application should be brought forward for consideration and consultation. As such it is crucial that an MRA is carried out as early in the planning process as practical.

Additional Information in Relation to the Application of Policy S9

- 8.54 In order to satisfy the provisions of Policy S9, non-mineral led applications made within Mineral Infrastructure Consultation Areas (MICAs) and considered to be 'included development' under Table 6, are required to include a MIIA as part of its evidence base. The MWPA has designed the following generic schedule of information requirements that should be addressed as relevant through an MIIA which is to accompany any application which falls within an MICA.
- 8.55 The MWPA recommends that in all cases, whether it be the preparation of a DPD, Masterplan or planning application, that advice is sought from the MWPA with regards to the requirement for an MIIA. The need for an MIIA is expected to form part of pre-application discussions between the relevant Local Planning Authority and the prospective developer. The MWPA requires an MIIA to be undertaken as soon as practical, and at such a time that it can shape and inform the early stages of a DPD, Master Plan or planning application.
- 8.56 The scope and level of detail of a MIIA will be influenced by the specific characteristics of the site's location, the nature of the development being applied for and the nature of the safeguarded mineral infrastructure subject to the MICA. However, a number of requirements have been identified in Table 8 below which are likely to satisfy the Minerals Planning Authority that potential impacts have been suitably assessed in the MIIA.
- 8.57 The scope of the MIIA should be agreed with the MWPA before commencement.

Table 8: Example of Requirements for a Minerals Infrastructure Impact Assessment

Minerals Infrastructure Impact Assessment Components	Information requirements & sources
Site location, boundaries and area	Application site area in relation to safeguarded site(s), Description of proposed development, Timescale for proposed development,
Description of infrastructure potentially affected	Type of safeguarded facility e.g. wharf, rail depot, concrete batching plant; asphalt plant; recycled aggregate site, Type of material handled/processed/supplied, Throughput/capacity.
Potential sensitivity of proposed development as a result of the operation of existing or allocated safeguarded infrastructure (with and without mitigation)	Distance of the development from the safeguarded site at its closest point, to include the safeguarded facility and any access routes, The presence of any existing buildings or other features which naturally screen the proposed development from the safeguarded facility, Evidence addressing the ability of vehicle traffic to access, operate within and vacate the safeguarded development in line with extant planning permission, Impacts on the proposed development in relation to: <ul style="list-style-type: none"> • Noise • Dust • Odour • Traffic • Visual • Light
Potential impact of proposed development on the effective working of the safeguarded infrastructure/allocation	Loss of capacity – none, partial or total, Potential constraint on operation of facility – none or partial.
Mitigation measures to be included by the proposed development to reduce	External and internal design & orientation e.g. landscaping; living & sleeping areas facing away from facility,

<p>impact from existing or allocated safeguarded infrastructure</p>	<p>Fabric and features e.g. acoustic screening & insulation; non-opening windows; active ventilation.</p>
<p>Conclusions</p>	<p>How the MIIA informed the final layout of the proposed development.</p> <p>Potential sensitivity of proposed development to effects of operation of the safeguarded infrastructure/facility and how these can be mitigated satisfactorily; or If loss of site or capacity, or</p> <p>constraint on operation, evidence it is not required or can be re-located or provided elsewhere.</p>

8.58 An MIIA is expected to be evidence based and informed by quantified information. It is recognised that the requirements of an MIIA may be addressed through other evidence base documents, such as those addressing transport, odour and noise issues. In these instances, it would be acceptable for the MIIA to signpost to the relevant section of complementary evidence supporting the planning application.

Appendix Three - Additional Minerals Planning Context

The Application Process

- 8.59 The Planning and Compulsory Purchase Act 2004 and Localism Act 2011 introduced major changes to the planning system, including greater public involvement throughout the planning process.
- 8.60 The MWPA's Statement of Community Involvement states that pre-application discussions between the potential operator and MWPA is good practice, and proposes that applicants with significant development proposals should carry out pre-application public consultation. This is supported within the relevant provisions of the Localism Act 2011. It is also considered that pre-application discussion will continue to be encouraged when not statutorily required. In respect of the submission of sufficient information, the applicant is directed to the adopted Local Validation List.
- 8.61 The need to achieve sustainable development is a key driver of planning in general and the policies in the NPPF taken as a whole constitute the Government's view on what sustainable development in England means in practice for planning. In essence there are three dimensions to sustainable development, the economic, the social and the environmental, as previously described within this Plan.
- 8.62 It is expected that applications for minerals development will provide information to demonstrate that the proposal provides net gains in all three of these dimensions. For example, applicants will be encouraged to provide 'economic statements' in support of their proposals.

Environmental Impact Assessment

- 8.63 All planning applications are screened as part of the Environmental Impact Assessment (EIA) process to determine whether or not they require an Environmental Statement. This is required by UK law. The screening/scoping process helps to identify whether a proposal is likely to have significant environmental effects, and if so, an Environmental Statement must accompany the planning application.
- 8.64 Proposals falling within Schedule 1 of the EIA Regulations must be accompanied by an Environmental Statement whilst proposals under Schedule 2 may require an Environmental Statement depending on detailed circumstances. The Environmental Statement will identify the likelihood of significant impacts occurring. It will show how these impacts can be avoided, mitigated and compensated for, and consider alternative ways the development could be carried out.
- 8.65 In cases where an Environmental Statement is not required, the applicant must still consider all the impacts arising from the proposed minerals development and supply information to demonstrate that these have been addressed within their planning application.
- 8.66 Planning conditions are always attached to planning approvals to regulate the

operation of the proposed minerals development. Planning conditions are used to agree specific details about the proposal (such as a landscape scheme) and to ensure the effects on local people and the environment are kept within acceptable levels (for example by limiting working hours).

- 8.67 Where significant adverse effects cannot be adequately controlled or prevented, or insufficient evidence has been supplied to demonstrate whether impacts can be adequately mitigated, planning permission will be refused.

Review of Old Mineral Permissions (ROMP)

- 8.68 Although a temporary use of land, mineral working can last for many years and have a noticeable impact on the environment. Some existing mineral sites were given planning permission several decades ago when standards of operation, restoration and after-
- 8.69 use were much lower than today's modern standards. Legislation has now tackled this problem.
- 8.70 The Planning and Compensation Act 1991 required Interim Development Order (IDO) permissions granted between 1943-1948 to be registered with the Mineral Planning Authority (MPA). Subsequently, the Environment Act 1995 required the MPA to review mineral planning permissions granted between June 1948 and February 1982, and to impose periodic reviews of permissions granted after February 1982. The
- 8.71 purpose being to enable the MPA to impose modern operating, restoration and after-use conditions on these 'old' permissions. This process operates periodically, whereby each active site (including IDO's) must be reviewed every 15 years.
- 8.72 This ongoing updating process is known as the 'Review of Old Mineral Permissions' (ROMP). Like standard planning applications for mineral development, the ROMP applications for new schemes of conditions go through statutory consultation and administrative procedures before they are determined. Normally ROMP applications will be accompanied by an Environment Statement which assesses the likely environmental impact of the development.

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