# Kirklees Local Plan

# Minerals Evidence Base

**Final**

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Kirklees COUNCIL

bpp consulting
resource planning professionals

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# Abbreviations

| | |
|---|---|
| AMR | Annual Monitoring Report |
| AONB | Area of Outstanding Natural Beauty |
| AOS | Area of Search |
| AWP | Aggregate Working Party |
| BAP | Biodiversity Action Plans |
| BGS | British Geological Survey |
| BNG | Biodiversity Net Gain |
| BOA | Biodiversity Opportunity Area |
| C, D & E | Construction, Demolition and Excavation |
| CCS | Carbon Capture and Storage |
| CLUED | Certificate of lawfulness of existing use development |
| CLOPD | Certificate of lawfulness of proposed use development |
| DCLG | Department of Communities and Local Government |
| DECC | Department of Energy and Climate Change |
| DESNZ | Department of Energy Security and Net Zero |
| EIA | Environmental Impact Assessment |
| EIP | Environmental Improvement Plan |
| EWC | European Waste Catalogue |
| GIS | Geographic Information Systems |
| Ha | Hectares |
| HGV | Heavy Goods Vehicles |
| IBA | Incinerator bottom ash |
| km | Kilometre |
| KMEB | Kirklees Minerals Evidence Base |
| LAA | Local Aggregates Assessment |
| LNR | Local Nature Reserve |
| LNRS | Local Nature Recovery Strategy |
| LP | Local Plan |
| LPA | Local Planning Authority |
| LURA | Levelling Up and Regeneration Act |
| MAS | Minerals Area of Search |
| MES | Mineral Extraction Site |
| MHCLG | Ministry of Housing, Communities and Local Government |
| MIQs | Matters, Issues and Questions |
| MPA | Mineral Planning Authority |
| MRA | Mineral Resource Assessment |
| MSA | Mineral Safeguarding Area |
| Mtpa | Million tonnes per annum |
| NPPF | National Planning Policy Framework |
| NSTA | North Sea Transition Authority |
| OS | Plantation on Ancient Woodland Sites |
| PEDL | Petroleum Exploration and Development Licence |
| PFA | Pulverised fuel ash |
| PPG | Planning Practice Guidance |
| RA | Recycled aggregate |
| RAG | Red-Amber-Green |
| RAP | Recycled asphalt planings |

| | |
|---|---|
| RCA | Recycled Concrete Aggregate |
| RGF | Restoration Guarantee Fund |
| RSA | Recycled and Secondary Aggregate |
| SA | Sustainability Appraisal |
| SAC | Special Area of Conservation |
| SAM | Scheduled Ancient Monuments |
| SHMA | Strategic Housing Market Assessment |
| SPA | Special Protection Area |
| SPZ | Source Protection Zone |
| SSSI | Site of Special Scientific Interest |
| t | Tonnes |
| tpa | Tonnes per annum |
| TRU | TransPennine Route Upgrade |
| UNFCCC | United Nations Framework Convention on Climate Change |
| WDI | Waste Data Interrogator |
| WPA | Waste Planning Authority |
| WRAP | Waste Resources and Action Programme |

# Executive Summary

The Kirklees Minerals Evidence Base (KMEB) provides a comprehensive assessment to inform the preparation of the Kirklees Local Plan, ensuring a sustainable, steady and adequate supply of minerals over the plan period (2024–2043). It focuses on the key mineral resources in Kirklees, including sandstone, sand and gravel, clay, recycled aggregates, and hydrocarbons, while addressing critical issues such as resource safeguarding, site selection, and restoration.

**Key Findings** include the following:

***Minerals Supply and Demand***

- **Sandstone (Building Stone and Aggregate):** Kirklees has significant reserves of high-quality sandstone, such as Huddersfield White Rock and Shepley Blue, which serve both local and national markets. A strong landbank for sandstone aggregate ensures supply (estimated at 49 years); however, market differentiation for building stone is critical to meeting diverse demands.
- **Sand and Gravel:** Kirklees has no active sand and gravel quarries, with resources exhausted in 2023. The area is heavily reliant on imports and due to the lack of clear opportunities for indigenous supplies, there is an urgent need to safeguard importation infrastructure. Whether future possible viable sites are achievable and can be allocated should continue to be investigated and, in any event the resource should be safeguarded in light of its proven quality.
- **Clay and Shale:** Local demand, primarily from the Wavin Ltd facility at Hazlehead, remains steady (32,400 tpa). Future growth into construction markets could increase demand significantly to 100,000–200,000 tpa. Additional sites will be important for maintaining long-term supply.
- **Hydrocarbons:** While no active hydrocarbon development exists, and there is no demand for onshore hydrocarbon development within current energy plans, policies must plan positively ensuring safeguarding of finite resources and criteria for development should the need arise, including adherence to climate change objectives and stringent environmental safeguards.
- **Recycled and Secondary Aggregates:** The contribution from construction, demolition, and excavation (CD&E) waste is growing, with an estimated 122,500 tonnes produced in 2023. Continued development of recycling infrastructure is needed.

***Site Selection***

A robust methodology, including constraints-based assessment and stakeholder consultation, is applied to identify specific sites, preferred areas, and areas of search. Sites will be prioritised based on mineral need, viability, and environmental acceptability and physical constraints e.g. urban areas, transport infrastructure.

***Safeguarding Resources and Infrastructure***

It is important to safeguard primary mineral resources from sterilisation by other developments, whilst also ensuring that minerals infrastructure sites are protected from development that would result in their loss or adversely impact their operation. Policies to safeguard existing mineral resources and processing infrastructure are

therefore required. Existing adopted Local Plan policies offer comprehensive safeguarding within Kirklees, which could be reviewed in urban areas, where less stringent safeguarding is now required for certain types of minerals, such as coal.

***Approach to Restoration***
The restoration strategy of the Kirklees Local plan should be to identify priorities that mineral restoration schemes can include and work towards delivering in relation to the environment and community incorporating Biodiversity Net Gain (BNG), climate resilience, and alignment with Local Nature Recovery Strategies. Rehabilitating quarries for ecological, recreational, or agricultural use is emphasised. Site specific guidance should be considered for allocated sites.

**Key Recommendations** include the following:

***Minerals Supply and Demand***

**Sandstone:**

- Safeguard existing quarries and resources.
- Allocate additional sites, including extensions where necessary, to meet projected demand.
- Monitor annual sandstone production to ensure market needs are met.

**Sand and Gravel:**

- Identify potential new areas of search and seek to allocate sites to address the shortfall if possible.
- Safeguard and promote importation infrastructure to enhance resilience.

**Clay and Shale:**

- Approve strategic quarry extensions where suitable and identify additional sites in suitable locations.
- Allow windfall sites subject to demonstrated need and policy compliance.

**Recycled and Secondary Aggregates:**

- Support development of advanced recycling facilities.
- Safeguard infrastructure and integrate recycling policies within employment land strategies.

***Restoration and Biodiversity***
Prioritise biodiversity and climate adaptation in restoration plans. Provide site specific guidance for allocated sites, if possible.

***Policy Integration***
Ensure alignment with national policy (NPPF, PPG and Environmental Improvement Plan), paying particular attention to how this might change with the introduction of national development management policies.

# 1 Introduction and background

1.1.1 The updated Kirklees Local Plan will form the main Development Plan Document (DPD) for Kirklees and will set out a strategy for development over the plan period to 2043. It will also identify site allocations for specific types of development and planning policies that will be used to guide investment and assess planning applications. To ensure that the Plan is relevant, justified and effective, it is important that it is based on robust, up-to-date evidence and takes account of relevant national and local policies and strategies affecting land use.

1.1.2 To support the Kirklees Local Plan that was adopted in 2019, a series of technical papers were prepared including one concerned with minerals. The Minerals Technical Paper prepared by Kirklees Council[1] in April 2017 provided information about active mineral sites within Kirklees and updates on mineral reserves and sales for Kirklees' mineral resources. Additionally, it outlined the Council's stance on recycled and secondary aggregates, as well as its approach to safeguarding mineral resources and minerals infrastructure. The document also discussed the site allocation process and took account of the latest National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG) guidelines related to minerals.

1.1.3 The previous minerals evidence in Kirklees is considered outdated for reasons which include the following:

- **Minerals Supply and Demand:** Details related to quarry sites, reserves, production rates, and promoted sites have changed since the original evidence was compiled.
- **Mineral Safeguarding Updates:** Some quarries in Kirklees have experienced changes (e.g. extraction now underway) and some new or modified facilities which are not safeguarded by the current Local Plan may require safeguarding. The effectiveness of existing policy in safeguarding mineral sites also needs reviewing.
- **Oil and Gas Considerations:** Although there are no areas subject to Petroleum Exploration and Development Licences (PEDLs) in the vicinity, paragraph 228a of the NPPF (December 2024) requires MPAs to plan positively for hydrocarbon development while ensuring proper monitoring and restoration. The National Policy Statement for Natural Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4) was updated in November 2023 to reflect the ongoing need for oil and gas during the transition to a net zero economy. This includes ensuring secure, reliable, and affordable energy supplies while developing low carbon alternatives.
- **Minerals Site Restoration:** There have been changes to national policy and legislation, for example the Levelling Up and Regeneration Act 2023

1 https://www.kirklees.gov.uk/beta/planning-policy/pdf/examination/background-papers/BP9_Minerals_Technical_Paper.pdf

requires MPAs to consider Biodiversity Net Gain, Local Nature Recovery Strategies, climate change, and adaptation which are likely to affect approaches to mineral restoration.

1.1.4 This minerals evidence update considers the relevant requirements of national planning policy as set out in the NPPF and associated PPG insofar as it relates to minerals supply.

## Scope of Kirklees Minerals Evidence Base Update

1.1.5 This update to the Kirklees Minerals Evidence Base addresses the following five key areas:

- Mineral Supply and Demand
- Site Selection
- Mineral Safeguarding
- Hydrocarbons
- Mineral Site Restoration

1.1.6 Each section considers national policies and guidance affecting planning for the above matters and includes recommendations on approaches to take when considering these matters in the new Local Plan. It is important to note that this report takes account of extant national policy in March 2025 whereas the Local Plan will need to be consistent with national policy in place at the time it is published at Regulation 19 stage. For example, 'national development management policies' may have been developed by that time which set out requirements for safeguarding and restoration.

# 2 Changes to Context affecting Minerals Supply

## 2.1 Policy and Legislation

### National Planning Policy and Planning Practice Guidance

2.1.1 The NPPF and PPG set out policy and guidance on the following:

- Provision for the extraction of mineral resources of local and national importance;
- the safeguarding of mineral resources and mineral supply infrastructure such as that related to transport and processing;
- prior extraction of minerals to allow non-mineral development to take place;
- criteria or advice to ensure permitted or proposed operations do not have adverse impacts on the natural and historic environment or human health and the type of matters which should be considered
- restoration and aftercare of mineral sites;
- planning for a steady and adequate supply of minerals by making provision for specific sites, preferred areas and areas of search in local plans. In Kirklees this includes sand & gravel, crushed rock and brick clay; and,
- hydrocarbon extraction.

2.1.2 Each section of this minerals evidence base document considers relevant policy in the NPPF and takes this into account in the recommendations for approaches to the Local Plan update.

### Environmental Improvement Plan

2.1.3 The UK Government Environmental Improvement Plan 2023 (EIP)[2] should be taken into account to ensure that mineral extraction is sustainable, aligns with environmental targets, and supports long-term ecological health. Key considerations include the following:

- Sustainable Mineral Extraction e.g. by prioritising the use of secondary and recycled aggregates to reduce reliance on primary extraction and encouraging efficient use of minerals to avoid unnecessary resource depletion.
- Protecting and Enhancing Biodiversity e.g. by requiring biodiversity net gain (BNG) as part of mineral extraction proposals.
- Air Quality and Climate Change Mitigation e.g. by adopting low-carbon technologies and practices, such as using electric or low-emission vehicles on site and for the transportation of minerals.
- Water Resource Management e.g. by allowing restoration which incorporates waterbodies such as ponds or wetlands to enhance natural water retention and biodiversity.

[2] https://www.gov.uk/government/publications/environmental-improvement-plan

- Landscape and Natural Beauty e.g. by ensuring extraction avoids or mitigates unacceptable adverse impacts on designated landscapes, such as National Parks and National Landscapes.
- Community and Well-being e.g. by ensuring mineral extraction minimises impacts such as noise, dust, and vibrations on nearby communities.

## 2.2 Geographical Context

### Population and housing

2.2.1 The latest Strategic Housing Market Assessment for Kirklees states that the population will increase from 446,637 in 2024 to 464,258 in 2043 and the total number of households is projected to increase 8% from 184,723 in 2024 to 199,477 by 2043. These projections are based on 2018 data and will be revised once the 2022 data has been published (expected May 2025). The 2018 based projections estimate the largest increases in the 65-74, 75-84, and 85+ age categories. 2018-based ONS household projections suggest a total of 184,723 households (which is higher than the 2021 Census figure) which is projected to increase by 14,754 (8.0%) to 199,477 by 2043.

2.2.2 Demand for housing is universal across Kirklees, and addressing affordability is crucial, especially given disparities in income levels and housing market strength across Kirklees. The ageing population will require diverse housing options such as bungalows, sheltered housing, and extra care facilities.

### Economy

2.2.3 The Kirklees economy is the third largest in the Leeds City Region and is characterised by a strong manufacturing sector, contributing to its position as the third largest in England for manufacturing jobs. Advanced manufacturing, high-value textiles, and low-carbon product innovation are key growth areas. Economic policies aim to reduce out-commuting, create higher-paid local jobs, and capitalise on assets such as the University of Huddersfield and strategic locations along the M62 corridor.[3]

2.2.4 The network of town, district and local centres in Kirklees also play a key role in the economy and the community. Huddersfield Town Centre is the primary retail, cultural, and leisure hub within Kirklees and has opportunities for regeneration. Challenges exist such as high retail vacancy rates in towns like Dewsbury and Batley, alongside competition from out-of-town retail parks (e.g. Birstall).

[3] Source: Kirklees Local Plan - Strategy and Policies, 2019

### Transport

2.2.5 Kirklees benefits from good transport links, including the M62 and rail connections to Leeds and Manchester, but faces challenges with congestion and limited north-south connectivity. Public transport improvements and sustainable travel options, such as enhanced cycling infrastructure, are seen as critical to reducing car dependency and meeting climate change goals.

### Natural Environment

2.2.6 Kirklees boasts a diverse natural environment with significant sites for biodiversity. The South Pennine Moors Special Protection Area[4] (SPA) and Special Area of Conservation (SAC)[5] along with the Peak District Moors SPA[6] cover large upland areas. These sites are designated for their importance to bird species, such as merlin and the golden plover, and for their unique habitats, including heathland and blanket bog.

### Geology

2.2.7 The western part of Kirklees is dominated by the Pennine Hills, underlain by Carboniferous Millstone Grit sandstones, which are among the highest quality building stones in the UK. These sandstones are essential for construction and landscaping.

2.2.8 In the eastern half of Kirklees, the geology transitions to Carboniferous Coal Measures, which include valuable deposits of pipe clay and sandstone paving stones. Additionally, sand and gravel resources are present in the river valleys, particularly along the River Calder.

### Climate Change

2.2.9 Flooding risks, particularly in the Colne and Calder Valleys, highlight the importance of climate adaptation. The adopted Local Plan emphasises renewable energy and low-carbon developments to meet national emissions reduction targets.

2.2.10 In 2019 the West Yorkshire Combined Authority announced a climate change emergency for the West Yorkshire Region and the resulting publication of the West Yorkshire Climate and Environment Plan 2021-2024. Within this plan WYCA sets out its emission reduction pathway to 2038. Kirklees Council's own climate change vision is to be net zero and climate ready by 2038. This climate change vision is one reason the adopted plan requires updating and is expected to shape the vision and policies of the new Kirklees Local Plan, including the minerals policies and site selection.

# 3 Minerals Supply and Demand

## 3.1 Introduction

3.1.1 Minerals of local and national importance in Kirklees are as follows:

- Sandstone (for non-aggregate uses)
- Sandstone (for primary aggregate uses)
- Sand and gravel for aggregate uses
- Clay for use in pipe manufacture
- Coal (potential national importance – not needed currently)
- Hydrocarbons (potential national importance – not needed currently)

3.1.2 The following materials are produced from sandstone quarries:

- Building stone used in masonry, buildings, walling and gardening stone
- Aggregates (see below)
- Clay[7]

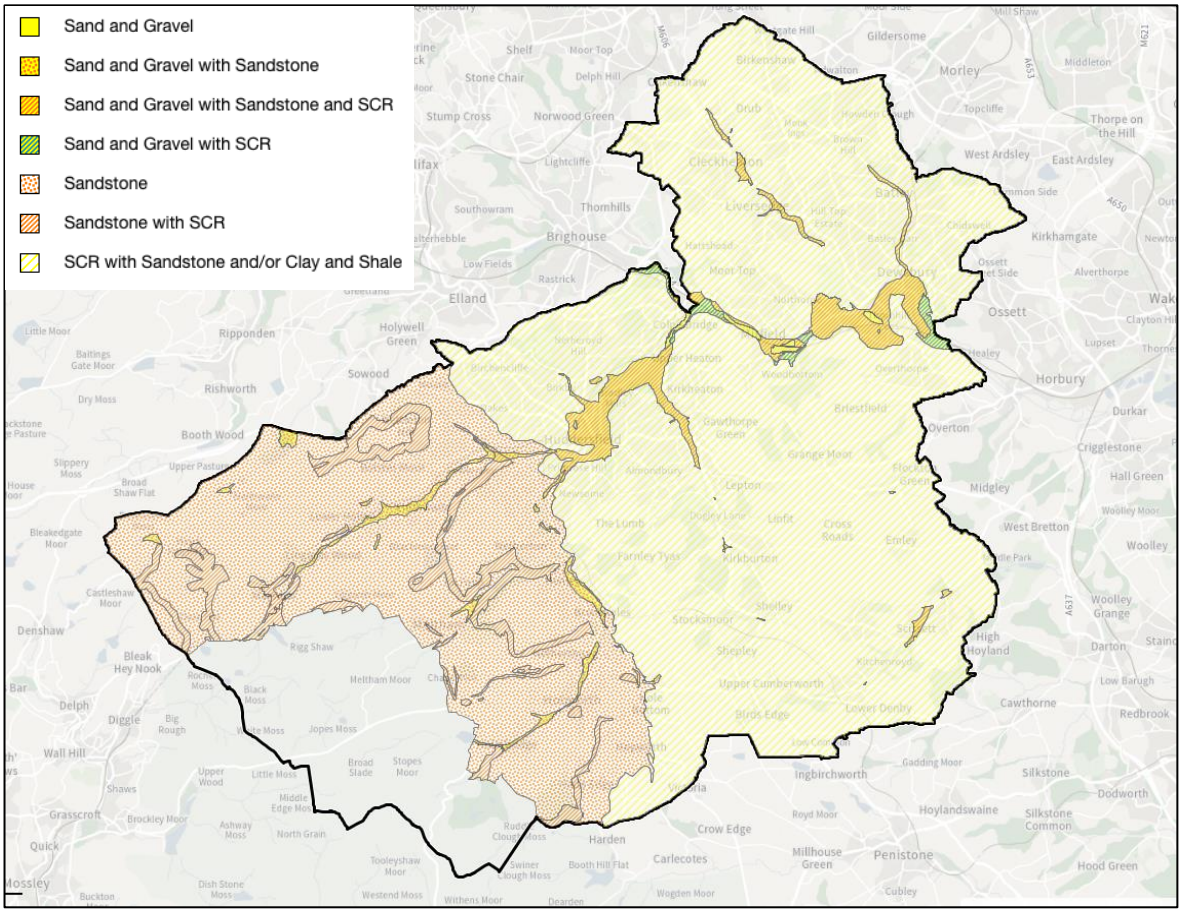
3.1.3 There are potential sources of recycled and secondary aggregate (derived from Incinerator Bottom Ash) in Kirklees. The aggregate derived from working sandstone to obtain building stone in Kirklees, is plentiful and low quality, more is extracted than there is demand. As such it is effectively a by-product, and should be classed as a secondary, or non-primary aggregate, however, in terms of planning, such sandstone derived aggregate has been historically classed as 'crushed rock' aggregate and so this paper will treat it as such.

3.1.4 Coal used to be worked extensively within Kirklees but there are currently no active workings. Coal seams are sometimes extracted as a secondary product at clay quarries, but this may become increasingly difficult to extract, even as a by-product, due to climate change assessment and carbon offsetting requirements.

3.1.5 A separate section (Section 6) is included which specifically concerns hydrocarbons. Paragraph 223(b) of the NPPF requires that Mineral Planning Authorities (MPAs) prioritise sourcing minerals locally ('indigenously') if feasible. MPAs should also consider the role of substitute, secondary, and recycled materials in meeting supply demands before turning to primary extraction. For land-won primary materials, paragraph 223a) of the NPPF requires MPAs to identify and implement policies for extracting mineral resources of both national and local importance within their area.

[4] Source: https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9007022.pdf
[5] Source: https://publications.naturalengland.org.uk/file/4643219392430080
[6] Source: https://publications.naturalengland.org.uk/file/5444624587948032
[7] This is only known to occur at Appleton Quarry.

3.1.6 Figure 1 shows the mineral resources safeguarded by the Kirklees Local Plan 2019. Mineral sites included in the adopted Kirklees Local Plan and their current status is included in Appendix 1.



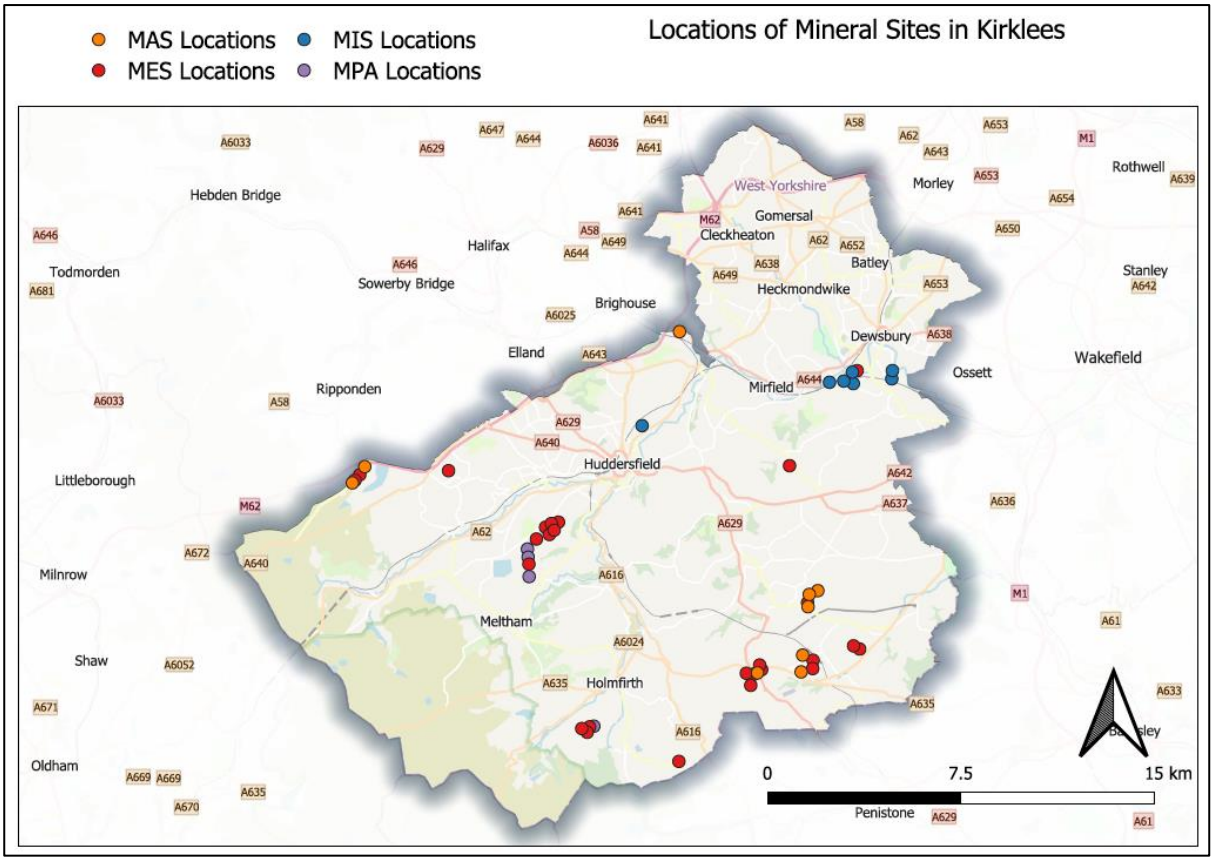



Figure 2: Map of Mineral Sites in the adopted Kirklees Local Plan (Contains national statistics data © Crown copyright and database right 2024)

## 3.2 Aggregate

### General

3.2.1 Paragraph 226(a) of the National Planning Policy Framework (NPPF) requires Minerals Planning Authorities to plan for a steady and adequate supply of aggregates by preparing an annual Local Aggregates Assessment (LAA). Future planned provision should be based on a rolling average of 10 years' aggregate sales data and an assessment of all supply options, including marine-dredged, recycled, and secondary sources, alongside other relevant local information. The NPPF also requires landbanks of at least seven years for land-won sand and gravel and ten years for crushed rock to be maintained. Landbanks serve as the primary indicator of the future security of aggregate mineral supply and help determine the additional provision required for new aggregate extraction and alternative sources in mineral plans.

3.2.2 The NPPF and planning practice guidance also state that separate landbanks should be calculated and maintained for any aggregate materials of a specific type or quality which have a distinct and separate market.

3.2.3 The West Yorkshire Local Aggregate Assessment satisfies Kirklees's requirement to maintain an LAA and landbanks are calculated on a West Yorkshire wide basis which reflects the regional aggregate supply interactions between the West Yorkshire authorities. The LAA sets out the 10-year average of sales for sand and gravel and crushed rock.

3.2.4 The LAA sets out 'key messages' and relevant considerations to be taken into account *'when preparing local plan policy (including allocations) and assessing proposals for minerals development and associated infrastructure'*. These key messages apply equally to Kirklees and are set out in Appendix 2.

3.2.5 Preparation of a joint LAA also assists Kirklees Council in meeting its obligations under the Duty to Cooperate included in Section 33A of the Planning and Compulsory Act 2004 (as amended by Section 110 of the Localism Act 2011).

3.2.6 Table 1 below summarises the position with regard to land won aggregate sites in Kirklees in 2023.

Table 1 Aggregate Sites, Sales and reserves in Kirklees 2023[8]

| | |
|---|---|
| ***Sand and Gravel*** | |
| No. of active sand and Gravel sites | 1[9] |
| No. of inactive sand and Gravel sites | 0 |
| Total sand and gravel sales (t) | confidential |
| 3-year average sales | 34,501 |
| Total sand and gravel reserves (t) | 0 |
| **Landbank (years)** | **0** |
| ***Crushed rock*** | |
| No. of active crushed rock sites | 7 |
| No. of inactive crushed rock sites | 0 |
| Total crushed sandstone sales (for aggregate) (t) | 93,444 |
| 3-year average sales | 110,513 |
| Sandstone sales (for non-aggregate) (t) | 13,520 |
| Total crushed sandstone reserves (for aggregate) (t) | 5,438,728 |
| Sandstone reserves (for non-aggregate) (t) | 481,441 |
| **Landbank (crushed sandstone reserves (for aggregate))** | **49 years** |

3.2.7 In the absence of 10-year sales averages, landbanks for the sand and gravel and crushed rock in Kirklees have been calculated using three-year sales averages. Due to the lack of sand and gravel reserves the sand and gravel landbank is non-existent. The landbank for crushed rock is 49 years. It should be noted that the West Yorkshire LAA is updated annually and these landbank values are snapshots reflecting the data available at the time.

3.2.8 It is worth noting that aggregate minerals in Kirklees do not have distinct and separate markets and so there is no need for further separate landbanks to be calculated and maintained.

## Demand Factors

### *Planned transport investments*

[8] Source: Aggregates Mineral Survey 2023
[9] This site ceased operations in 2023

3.2.9 There are planned transport investments in Kirklees and the wider West Yorkshire sub-region, such as the TransPennine Route Upgrade (TRU), the West Yorkshire Mass Transit along with aspirations to upgrade the Penistone Line from Huddersfield to Sheffield via Barnsley, which could further increase demand on mineral resources in the area and are likely to significantly increase the demand for minerals, particularly aggregate minerals, in several ways including, but not limited to, the following:

- **Construction of Infrastructure:** Both the TRU and the Mass Transit schemes involve extensive construction work, including building new rail lines, stations, and associated infrastructure. This will require large quantities of aggregate minerals like sand, gravel, and crushed stone for concrete, roadbeds, and other construction materials. The TRU project has commenced and is expected to be completed between 2036 and 2041. The West Yorkshire Mass Transit scheme is expected to commence construction in 2025/26 and be completed by 2040.
- **Maintenance and Upgrades:** Once the infrastructure is built, ongoing maintenance and periodic upgrades will continue to demand aggregate minerals. This includes track maintenance, station refurbishments, and road repairs.
- **Urban Development:** Improved transport links often stimulate urban development and regeneration projects. As areas become more accessible, there is likely to be an increase in residential, commercial, and industrial construction, further driving the demand for aggregate minerals.
- **Economic Growth:** Enhanced transport connectivity can boost the local economy by attracting businesses and increasing employment opportunities. This economic growth can lead to more construction projects, both directly related to the transport schemes and in other sectors, thereby increasing the demand for aggregate minerals.

3.2.10 These factors combined suggest a substantial rise in the need for aggregate minerals in the Kirklees and West Yorkshire area as these transport projects progress.

### *Housing*

3.2.11 Figures for housebuilding in England in 2021-22 and 2022-23 were just short of 235,000 each year[10] and so it can be assumed that a 30% increase in housing required to achieve the Government's 370,000 homes per year target.

3.2.12 In Kirklees the average net additional dwellings achieved between 2021/22 and 2023/24 were 964 which compares to a new government target of 1,840 suggest an increase in housing delivery of 90% will be needed[11].

3.2.13 The latest housing delivery report for West Yorkshire[12] provides detailed information on housing developments across the region. The report highlights that the number of houses built in Kirklees has been significant (878 gross new build dwelling completions in 2022/23), but there have been challenges in meeting targets.

3.2.14 The report notes that plans for 31,000 homes to be delivered across the borough by 2031 have been approved and that the Council has been working on several major housing projects, including Dewsbury Riverside, Soothill in Batley, and Kenmore Drive in Cleckheaton. However, the Council has faced difficulties in meeting its house-building targets, missing the target by more than 500 homes over the last three years.

3.2.15 Housing growth in Kirklees over the next 15 years is also expected to be influenced by several factors:

- **Population Growth:** Kirklees is experiencing a growing population, particularly among those aged 65 and over, which is projected to increase by nearly 40% by 2031. This demographic shift will drive demand for more housing, especially for older people.
- **Local Housing Strategy:** Kirklees Council's strategy aims to provide a range of good quality, affordable homes to meet the needs of the community. This includes increasing the supply of housing, improving housing quality, and ensuring that homes are suitable for people at different stages of life.
- **Economic Factors:** The proximity of Kirklees to major cities like Leeds and Manchester, along with its strong transport links, makes it an attractive location for both residential and commercial development. This leads to increased housing demand as more people move to the area for work and lifestyle reasons. The TRU may strengthen Kirklees's position as an attractive location for residential and commercial development and so further increase demand for housing in Kirklees.

[10] Source: https://www.gov.uk/government/statistical-data-sets/live-tables-on-net-supply-of-housing
[11] Source: https://www.gov.uk/government/statistical-data-sets/live-tables-on-net-supply-of-housing
[12] Housing Delivery in West Yorkshire: Annual Monitoring Report 2022/23 (December 2023)

- **Sustainability and Innovation:** There is a focus on sustainable development and innovative housing solutions to meet the growing demand while minimising environmental impact. This includes the use of recycled and secondary materials in construction and promoting energy-efficient homes.

3.2.16 These factors combined suggest that Kirklees will see significant housing growth, with a focus on meeting the needs of an aging population, providing affordable and high-quality homes, and ensuring sustainable development.

3.2.17 A new Strategic Housing Market Assessment (SHMA) for Kirklees is being prepared which investigates the current housing market and will identify specific housing needs for different community groups. This assessment will help shape future housing policies and development plans. It is anticipated that the SHMA will be completed in 2025.

3.2.18 Figure 3 shows anticipated growth areas in West Yorkshire.

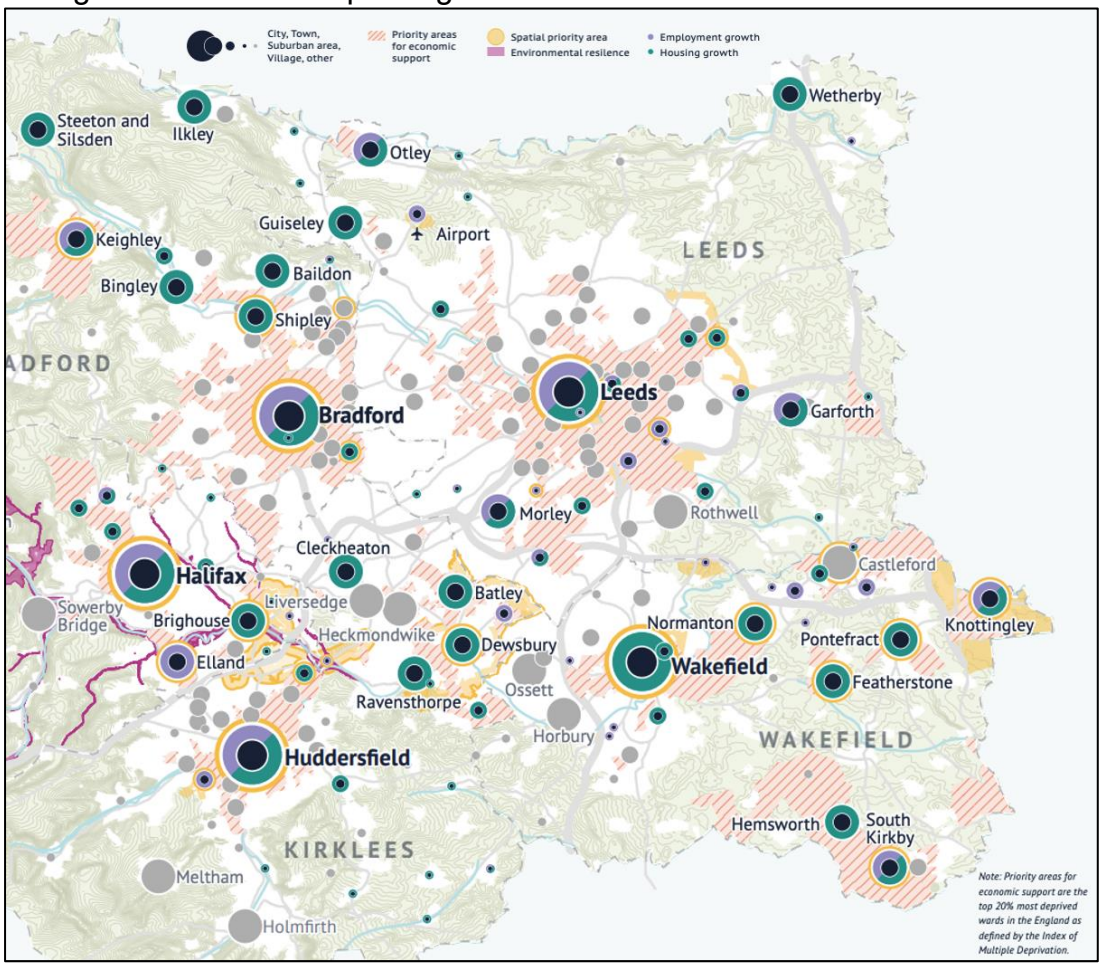



Figure 3 Growth Areas in West Yorkshire (Source: WYCA)

## Sandstone for use as a low-grade Crushed Rock aggregate

### Factors affecting and/or indicative of demand

3.2.19 The demand for sandstone as a low-grade crushed rock aggregate is influenced by several factors. The quality of the material and its suitability for specific applications continue to support an ongoing need for its use. Sites identified in the Kirklees Local Plan have been developed, contributing to the availability of this aggregate material. However, the potential substitution of this low-grade aggregate by recycled and secondary materials, such as construction, demolition, and excavation waste (CD&E), may affect its demand to some extent.

3.2.20 Despite potential shifts in aggregate sources, increases in imports of higher specification sand and gravel, such as those from marine sources or river terrace deposits, are unlikely to significantly impact the demand for lower-quality sandstone aggregate. This is because sandstone aggregate remains a cost-effective option for lower-grade applications, such as bulk fill.

3.2.21 The successful application (reference 2023/93449) for the recent extension at Windy Ridge Quarry (currently subject to a Section 106 agreement), notes that stone extraction has accelerated since the site was acquired by the current applicant in 2021, with significantly higher production levels of aggregate being reported. This increase underscores the ongoing role of such quarries in meeting local demand for low-grade crushed rock aggregate.

### Factors affecting supply

3.2.22 The supply of sandstone as a low-grade crushed rock aggregate is influenced by several key factors. There is an abundant supply of sandstone aggregate derived from blockstone quarrying activities. This surplus exceeds what is necessary for current market demand for low-grade crushed aggregate and site restoration. The 49-year landbank for this material in Kirklees clearly demonstrates that supply is well above levels of demand. The management of abundant surplus low-grade sandstone aggregate to extract higher quality blockstone influences significantly the operation, production, and restoration of sandstone quarries in Kirklees.

3.2.23 Appendix 1 lists the sandstone sites included in the current adopted Local Plan and indicates those submitted through the Call for Sites process.

3.2.24 In terms of regional supply dynamics, high-quality crushed rock is imported into the area from Derbyshire and the Yorkshire Dales[13], providing an important source of aggregate capable of meeting demand for higher grade aggregate applications such as concrete and road making.

[13] Source: West Yorkshire Local Aggregates Assessment (based on data to be updated in 2025).

3.2.25 For West Yorkshire as a whole, the supply situation is robust. The 10-year annual average sales figure for sandstone aggregates in 2023 stood at 1.01 million tonnes. As of December 31, 2023, reserves were recorded at 35.79 million tonnes, equating to a substantial landbank of 35 years and 7 months. This also indicates a strong and sustainable supply base for low-grade crushed rock aggregate in the region.

### Sand and Gravel

3.2.26 The BGS 2006 Report for West Yorkshire covering Kirklees identifies that sand and gravel resources are defined on the basis of particle size with sand (fine aggregate) being material that is finer than 4mm but greater than 0.063mm and gravel (coarse aggregate) being between 4mm and 80mm. For use as asphalt sand 2mm is usually the break point between coarse and fine.

3.2.27 The position regarding the supply of sand and gravel in Kirklees is wholly reflective of the rest of West Yorkshire which is summarised in the latest West Yorkshire LAA (2023 data) as follow:

*'Due to its geology, West Yorkshire is heavily reliant on the importation of sand and gravel to meet its demand for this type of aggregate. Sales of sand and gravel continued from a single operational sand and gravel quarry within West Yorkshire but this reached exhaustion in 2023. There are other existing reserves of sand and gravel but these are insufficient to meet demand.'*

3.2.28 The single operational site that reached exhaustion in 2023 mentioned above is Forge Lane in Kirklees and so there are now currently no operational sand and gravel sites in Kirklees and consequently the landbank is zero years.

**Factors affecting and/or indicative of demand**

3.2.29 The lack of primary land won sand and gravel across West Yorkshire in general means that there is a demand for such material for use in higher grade specifications such as concrete.

3.2.30 Currently all sand and gravel used in higher grade specifications in Kirklees is imported from elsewhere. This also largely applies to the rest of West Yorkshire and so demand for a local source is high.

3.2.31 There is only one other site in West Yorkshire that has potential to produce sand and gravel in the short term - this is Stanley Ferry in Wakefield - this site is not yet operational and in any event by itself will only meet a fraction of the requirements.

3.2.32 Increases in construction activity e.g. housing, will increase demand for sand and gravel.

## Factors affecting supply

3.2.33 The supply of sand and gravel in Kirklees faces significant challenges due to a combination of resource constraints, operational closures, and regional dependencies. A key issue is the lack of unconstrained resources. Research by the British Geological Survey (BGS) in 2009 suggested that only sites containing 1–1.5 million tonnes of sand and gravel, requiring 10–25 hectares of land, would be economically viable. However, much of the potentially viable resource is fragmented by rivers, canals, railways, and roads, leaving only a small number of sites with real potential for development. The lack of competition due to there being no clear opportunities for sand and gravel extraction in Kirklees, may mean costly mitigation to overcome constraints does not necessarily mean that developing sites containing less than 1 million tonnes is unviable.

3.2.34 Industry assessments identified 5 –10 potential extraction sites across West Yorkshire, but factors such as access issues, environmental concerns, hydrological challenges, and planning restrictions rendered these sites unsuitable for development. As a result, no viable sites have been established in Kirklees. This situation was further exacerbated by the closure of Forge Lane sand and gravel quarry in 2023, leaving Kirklees without any active sand and gravel quarries. Remaining resources, primarily located in the Calder Valley near Dewsbury, are considered inaccessible due to similar challenges, evidenced by the lack of proposals for new sand and gravel workings despite ongoing demand.

3.2.35 The Kirklees Local Plan 2019 includes an Area of Search at Bradley Island (Reference: MAS1) near Huddersfield, but no interest has been shown in working this site. It is understood that its challenging location would require substantial investment to establish suitable access, and this has likely deterred development.

3.2.36 Currently, sand and gravel for ready-mix concrete in Kirklees is being imported from outside the area, including from Doncaster and the Trent River gravels in North Nottinghamshire, transported primarily by road. This appears to be a change from the pattern of imports reported in the LAA which is based on 2019 data. Data from the Government's five yearly survey of aggregate producers (to be published in 2025) should provide more up to date information on the source and nature of aggregate imports into West Yorkshire but sources of sand and gravel will change over time as existing sites are worked and new sites come into production.

3.2.37 Areas of importation may change over time, and this is dependent on supply, infrastructure and market demands within Kirklees. In 2025 more recent data regarding the sources of imports of sand and gravel to Kirklees will be published in the latest Aggregates Minerals Survey for England (and Wales).

3.2.38 In the broader context of West Yorkshire, the situation reflects these challenges. The region has a very low 10-year annual average sales figure of just 0.07 million tonnes as of 2023, consistent with previous years. Reserves stood at 1.88 million tonnes at the end of 2023, representing a slight decrease from 2022. The landbank is calculated at 24 years and 5 months, but its resilience depends heavily on a single 1.6 million tonne site at Stanley Ferry in Wakefield, which has yet to commence production. This reliance on one site underscores the precarious nature of sand and gravel supply across the region.

### Recycled and Secondary Aggregate

3.2.39 Paragraph 223(b) of the National Planning Policy Framework (NPPF) advises planning authorities to, so far as practicable, take account of the contribution that substitute or secondary and recycled materials and minerals waste would make to the supply of materials, before considering extraction of primary materials, whilst aiming to source minerals supplies indigenously. NPPF paragraph 226 confirms that Local Aggregates Assessments should be based upon an assessment of all supply options (including marine dredged, secondary and recycled sources). The NPPF defines recycled and secondary Aggregates (RSA) as follows:

- **Recycled Aggregates:** Aggregates resulting from the processing of inorganic materials previously used in construction, e.g. construction and demolition waste. derived from reprocessing materials previously used in construction. Examples include recycled crushed concrete from construction and demolition waste material, railway ballast and road planings.
- **Secondary Aggregates:** Aggregates from industrial wastes such as glass (cullet), incinerator bottom ash, coal derived fly ash, railway ballast, fine ceramic waste (pitcher), and scrap tyres; and industrial and minerals by-products, notably waste from china clay, coal and slate extraction and spent foundry sand. These can also include hydraulically bound materials or by-products of other industrial processes not previously used in construction. Secondary aggregates can be further sub- divided into manufactured and natural, depending on their source. Examples of manufactured secondary aggregates are pulverised fuel ash (PFA) and metallurgical slags. Natural secondary aggregates include china clay sand and slate aggregate' (neither of these are produced in the region).

3.2.40 Table 2 below details the types of material which constitute RSA.

Table 2 – Types of Recycled and Secondary Aggregate[14]

| Recycled | Secondary Manufactured | Secondary Natural |
|---|---|---|
| Recycled aggregate (RA) | Blast furnace slag | Slate aggregate |
| Recycled concrete aggregate (RCA) | Steel slag | China clay sand |
| Recycled asphalt | Pulverized-fuel ash (PFA) | Colliery spoil |
| Recycled asphalt plannings (RAP) | Incinerator bottom ash (IBA) | - |
| - | Furnace bottom ash (FBA) | - |
| - | Used foundry sand | - |
| - | Spent oil shale | - |
| - | Recycled glass | - |
| - | Recycled plastic | - |
| - | Recycled tyres | - |
| - | Spent rail ballast | - |

**Secondary Aggregate**

3.2.41 Kirklees Energy from Waste plant is a significant source of bottom ash derived secondary aggregate. It is estimated that c26,000 tonnes of IBA were sent to the Cleveland IBA processing facility in 2023[15].

**Recycled Aggregate**

3.2.42 Recycled Aggregate is primarily produced from construction, demolition and excavation (CD&E) waste arising from the demolition of buildings, clearance of sites and construction of new developments.

3.2.43 A total of c253,800 tonnes of CD&E waste generated in Kirklees was received at permitted waste management sites reporting through the WDI 2023. This consisted of c97,400 tonnes of construction & demolition waste[16] and c156,400 tonnes of soils/excavation waste[17]. Most CD&E waste originating from Kirklees was managed within Kirklees with 43% managed outside Kirklees in 2023, 98% of which was managed within the Yorkshire and Humberside region. Table 3 below shows the arisings of CD&E waste by management method/fate category. The principal receiving sites are shown in Appendix 4.

[14] Source: West Yorkshire Local Aggregates Assessment
[15] Source: Environment Agency Waste Data Interrogator 2023
[16] Wastes coded under Chapter 17 waste excluding soil and excavation waste codes in footnote 17.
[17] Wastes coded under EWC code 17 05 04 and, 20 02 02

Table 3[18] – CD&E waste managed in any WPA area produced in Kirklees by management method (2021- 2023) (tonnes (rounded to nearest 100 tonnes))[19]

| Management Method | 2021 | 2022 | 2023[20] |
|---|---|---|---|
| Permanent Deposit | 142,600 | 155,900 | 119,000 |
| Recycling/Treatment inc. waste managed through transfer/ storage | 171,800 | 166,600 | 134,800 |
| **Total** | **314,400** | **322,500** | **253,800** |

3.2.44 Clean soils constituted 92% of the recorded CD&E waste permanently deposited on land either at landfills or recovery to land sites. The use of soils to backfill mineral workings is classed as other recovery (rather than disposal) under national policy, meaning that soil deposited in landfill under the Environment Agency classification was not considered to be disposed. The remaining waste that would likely be suitable for conversion to recycled aggregate was managed through intermediate facilities.

3.2.45 The values set out in the table above represent the quantity of CD&E waste produced in Kirklees received at permitted facilities (rounded to the nearest 100 tonnes to avoid spurious precision) – i.e. sites where an Environmental Permit is in place (issued by the Environment Agency) reported in the WDI 2023. Given significant tonnages of hardcore may be processed into recycled aggregate on construction sites and either retained for use on the site or exported for sale from it, the figures neither confirm the total quantity of the potential recycled aggregate resource within Kirklees nor the amount of this resource actually converted into recycled aggregate.

3.2.46 To better understand the contribution that construction and demolition wastes treated within Kirklees might make to recycled aggregate production in Kirklees, Table 4 below identifies the tonnages of the key target waste types used to produced recycled aggregate.

[18] N.B. This Table provides 'top-level' values. Values for more specific target wastes are set out in Table 4.
[19] Source: Environment Agency Waste Data Interrogator (Waste Received & Waste Removed datasets)
[20] See Appendix 4 for site-by-site breakdown.

Table 4 – Target input RA Feedstock Waste Managed at Kirklees Intermediate Facilities in 2023 from all source WPAs (tonnes (rounded to nearest 100 tonnes))

| Material Type | 2023 |
|---|---|
| Hardcore Feedstock input[21] | 52,000 |
| Mixed C, D & E waste (skip waste)[22] | 16,400 |
| **Total** | **68,400**[23] |

3.2.47 Guidance[24] prepared by the Aggregate Working Parties, has been applied to generate an estimate of recycled aggregate production using the Environment Agency Waste Data Interrogator (WDI). This involves analysing data relating to the inputs and outputs of waste management sites in Kirklees. Where the outputs are found to be less than the inputs, it is possible that this is due to waste outputs being classified under Chapter 19 (EWC code 19 12 12) as a 'mechanical processing residue'. However, where the analysis finds that the quantity of processing residue does not account for all of the difference, it was assumed that this was due to hardcore being converted to recycled aggregate which would leave the site unrecorded as a non-waste product. Hence the derived recycled aggregate values are regarded as having been 'inferred'. Application of this method to sites in Kirklees results in the values set out in Table 5 below.

3.2.48 Using the method above, approximately 96,500 tonnes of recycled aggregate is estimated to have been produced in Kirklees in 2023. This is an increase of 13,000 tonnes on that estimated to be produced in 2022. Adding this value to the IBA derived secondary aggregate value of c26,000 tonnes (see paragraph 3.2.41 above), gives a total RSA production estimate of just over 122,500 tonnes produced in 2023.

[21] EWC code 170101 (concrete) 170102 (bricks), 170103 (tiles & ceramics), 170107 (mixtures of previous)
[22] EWC code 170904 (mixed construction and demolition wastes)
[23] This value is lower than that shown for inferred recycled aggregate production in Tab xxx because it only counts a subset of waste codes within Chapter 17 and does not account for possible stockpiling of material on a site.
[24] Recycled Aggregates Data: Guidance on Assessing Levels of Recycled Aggregates (May 2022)

Table 5 – Estimates of Recycled Aggregate Production in Kirklees, 2021-2023[25] (tonnes (rounded to nearest 100 tonnes))

| **Inferred recycled aggregate production[26]** | | | **Hardcore produced for recovery[27]** | | |
|---|---|---|---|---|---|
| 2021 | 2022 | 2023 | 2021 | 2022 | 2023 |
| 80,800 | 83,600 | 96,500 | 700 | 700 | 6,900 |

Table 6 - Site by Site Maximum Recycled Aggregate Productive Capacity - Inferred and/or Permitted (tonnes (rounded to nearest 100 tonnes)))

| **Site** | **Peak Input (2019-2023)** | **Permitted Max** (if stated) | **Consented Capacity** | **Local Plan designation** |
|---|---|---|---|---|
| Clayfield Works | 9,100 | not stated | NA | WS42 |
| Myers Skip Hire Ltd | 30,800 | <75,000 WTS | NA | MIS1 / WS6 |
| Johnsons Wellfield Treatment Plant | 2,800 | <75,000 treatment to produce soil/stones | NA | WS2 / MES1 |
| Temple Quarry | 74,100 | <75,000 treatment to produce soil/stones | 75,000 | WS61 |
| Windy Ridge Quarry | 23,900 | <75,000 inert WTS & treatment | NA | WS58 |
| **Total** | **140,700** | | | |

[25] Source: Environment Agency Waste Data Interrogator Waste Received & Waste Removed as per method set out in *Recycled Aggregates Data: Guidance on Assessing Levels of Recycled Aggregates* (May 2022)
[26] Including all wastes coded under Chapter 17 Construction excluding hazardous codes. See Table 7 for site-by-site breakdown.
[27] See Table 8 for site-by-site breakdown

Table 7 - Site by Site Inferred Recycled Aggregate Production (tonnes (rounded))[28]

| Site | 2021 | | | 2022 | | | 2023 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Input | Output | Difference = inferred recycled aggregate | Input | Output | Difference = inferred recycled aggregate | Input | Output | Difference = inferred recycled aggregate |
| Clayfield Works | 6,600 | 3,800 | 2,800 | 6,700 | 4,300 | 2,400 | - | - | - |
| Myers Skip Hire Ltd | 17,100 | 13,500 | 3,600 | 22,100 | 18,500 | 3,600 | - | - | - |
| Johnsons Wellfield Treatment Plant | - | - | - | - | - | - | 2,800 | 500 | 2,300 |
| Temple Quarry | 69,800 | 23 | 69,800 | 71,600 | 100 | 71,400 | 70,400 | 100 | 70,300 |
| Windy Ridge Quarry | 4,700 | 0 | 4,700 | 6,100 | 0 | 6,100 | 23,900 | | 23,900 |
| Total | 98,200 | 17,323 | **80,800** | 106,500 | 22,900 | **83,600**[29] | 97,100 | 600 | **96,500** |

Table 8 - Hardcore Sent for Recovery from Kirklees Intermediate Sites (tonnes (rounded))[30]

| Site | Hardcore Sent for Recovery (Tonnes) | | | Local Plan designation |
|---|---|---|---|---|
| | 2021 | 2022 | 2023 | |
| Dewsbury Transfer Station | - | - | 100 | WS25 |
| Headlands Road Depot | - | - | 2,700 | WS40 |
| Myers Skip Hire Ltd | - | - | 1,300 | WS6 |
| The Reins | - | - | 2,700 | WS51 |
| J T Shingleton & Son | 600 | 700 | 0 | WS38 |
| Emerald Street Household Waste Site & Composting Facility | 100 | 0 | 0 | W1 |
| **Total** | 700 | 700 | **6,900**[31] | |

[28] Source: WDI 2021, 2022 & 2023 waste received (input values) & waste removed (output values)
[29] Total value different to sum of values above due to rounding
[30] Source: WDI outputs
[31] Total value different to sum of values above due to rounding

### Factors affecting and/or indicative of demand

3.2.49 The demand for recycled and secondary aggregate in Kirklees is influenced by several factors. One positive development is the increasing processing of CD&E waste to prepare materials suitable for reuse. For example, a planning permission (2024/62/91904/E) has recently been granted for a washing plant at Temple Quarry to process CD&E waste, which will increase the availability of high-quality recycled aggregates.

3.2.50 In addition, more development adopting sustainable construction practices will increase demand for recycled and secondary aggregates. However, certain factors may reduce demand for these materials. The import of higher-specification sand and gravel, such as that derived from marine sources or river terrace deposits, could fulfil specific needs that recycled aggregates cannot meet.

3.2.51 Furthermore, the ongoing production of lower-quality aggregates from active sandstone quarries in the region could compete with recycled materials for lower-grade applications, such as bulk fill, potentially affecting their market share.

3.2.52 These dynamics collectively shape the demand for recycled and secondary aggregates in Kirklees, balancing the drive for sustainability with market and material availability considerations.

### Factors affecting supply

3.2.53 The supply of recycled and secondary aggregate in Kirklees is influenced by several key factors.

3.2.54 Firstly, the capacity of existing facilities plays a critical role in determining the availability of recycled aggregates. These facilities must be adequately equipped to process CD&E waste efficiently to meet demand.

3.2.55 Secondly, the threat of redevelopment poses a risk to the continuity of supply. Facilities producing recycled aggregate may face pressure from competing land uses, potentially disrupting their operations.

3.2.56 Additionally, the production of recycled aggregate is currently taking place at several quarries. These operations typically involve screening processes, with fines used for backfilling worked areas as part of site restoration. However, such operations are temporary and tied to the restoration of the quarry, which can create a disincentive for operators to complete restoration promptly. This may lead to extended restoration timelines, potentially delaying the availability of fully restored land for other uses.

3.2.57 Despite these challenges, quarry locations are generally well-screened and situated away from other developments, making them suitable for recycling operations. Furthermore, the production of recycled aggregate is actively encouraged, highlighting its importance in promoting sustainable construction practices. Balancing these considerations is essential for ensuring a consistent and sustainable supply of recycled and secondary aggregate in Kirklees.

## 3.3 Sandstone for Use as a Building Stone (Blockstone)

### General

3.3.1 The NPPF recognises that the small-scale nature of some building and roofing stone quarries requires a flexible approach to the long duration of planning permission for such sites.

3.3.2 Paragraph 224 of the NPPF states: *'When determining planning applications, great weight should be given to the benefits of mineral extraction, including to the economy78. In considering proposals for mineral extraction, minerals planning authorities should….*

*f) consider how to meet any demand for the extraction of building stone needed for the repair of heritage assets, taking account of the need to protect designated sites; and*

*g) recognise the small-scale nature and impact of building and roofing stone quarries, and the need for a flexible approach to the duration of planning permissions reflecting the intermittent or low rate of working at many sites.'*

(Footnote 78: *Except in relation to the extraction of coal, where the policy at paragraph 223 of this Framework applies*)

### Factors affecting and/or indicative of demand

3.3.3 Kirklees has a strong reputation as one of the producers of the highest quality sandstone building stone in the country. The Huddersfield White Rock, found within Kirklees, is a primary source of high-quality masonry stone in West Yorkshire. This rock formation, part of the Marsdenian measures of the Namurian or Millstone Grit Series, is highly valued for its durability and versatility. Along with the Greenmoor Rock, Huddersfield White Rock is a key source of blockstone for masonry, as well as general-purpose stone for walling and landscaping. Within the Huddersfield area, its extraction is primarily undertaken at Cartworth Moor and Johnsons Wellfield Quarries Ltd at Crossland Moor.

3.3.4 Another significant sandstone type found in Kirklees is Shepley Blue, a premium material recognised for its use in notable projects, including construction in Westminster. Shepley Blue is worked at Appleton, Sovereign and Carr Hill quarries.

3.3.5 The high quality of Kirklees sandstone, which can be sawn and shaped for building and architectural applications, means it has a national market with a steady demand.

3.3.6 Sandstone from Kirklees also plays a critical role in the conservation and repair of historic and cultural buildings, where authentic materials are required to preserve historical integrity. Demand for stone in Kirklees is further supported by the cessation of quarrying at Scout Moor Quarry in Rossendale, Lancashire, which had been a key source of sandstone. The closure of this site is expected to place increased demand on Kirklees quarries, particularly Sovereign Quarry and Appleton Quarry which may see an upturn in production over the new Plan period.

3.3.7 Future demand for sandstone is likely to align with growth in housing needs. If demand increases proportionally, sales could rise accordingly, but specific percentages and quantities remain to be confirmed. Recent (2023) data indicates that housing completions in Kirklees were 1,204, whereas the new Government target for housing in Kirklees is 1,840 suggesting that an uplift of 53% is needed which will in turn impact the demand for materials including indigenous building stone.

3.3.8 While imports of cheaper sandstone do occur e.g. from India, indigenous sandstone is frequently preferred due to its superior quality and lower climate impacts associated with reduced transport emissions. It is expected that over the period of the new Local Plan, developers will continue to specify local sandstone for high-profile and sustainable projects.

3.3.9 Lastly, the historically low levels of housing construction in Kirklees may have limited demand more recently, but the new Government's proposals to increase housing development will likely drive a corresponding rise in demand for sandstone as a building material. Together, these factors underscore the enduring importance of Kirklees' sandstone in construction, both locally and nationally.

### Factors affecting supply

3.3.10 For sandstone sites producing both building stone and aggregates, the 2023 aggregate survey indicates that:

- 13,520 tonnes of sandstone were extracted for non-aggregate uses, leaving
- 481,400 tonnes of reserves dedicated to non-aggregate purposes.

3.3.11 This suggests a theoretical landbank of 35.6 years, though actual quarry lifespans depend on whether the quality of the sandstone deteriorates with deeper excavation, potentially depleting reserves faster than expected.

3.3.12 The proposed extension to the Windy Ridge quarry (Cartworth Moor) is anticipated to increase total reserves at the site to 500,000 tonnes, providing approximately 10 years of supply at current extraction rates.

3.3.13 Supply may also be impacted by the quantity of secondary material that needs to be extracted to allow access to the premium building stone material. While the secondary material can be used off site as a low-grade aggregate, the demand for this material may be less than the rate of its extraction which means space has to be found on site to allow it to be stockpiled in a suitable location that does not hinder access to the premium material.

3.3.14 Statutory requirements for Biodiversity Net Gain may present barriers to the development of new quarries. Furthermore, safeguarding policy must consider the impact of new national policies on "grey belt" land (as defined in the NPPF). Allowing surface development on such land could sterilise existing sandstone resources, hindering quarry development and reducing future supply potential.

## 3.4 Clay and Shale for Use in Pipe Manufacture

### General

3.4.1 Brick clays are used in the manufacture of bricks, roof tiles, clay pipes and decorative pottery. Brick clay has been worked extensively in the past, mostly from a number of mudstone horizons in the Pennine Coal Measures. The Coal Measures remain the principal clay resource in Northern England. On the eastern side of Kirklees, in the Pennine Coal Measures, there are extensive areas of economically important clay and shale which provide raw material for two important national clay pipe manufacturers in Barnsley district – Wavin Ltd (Hepworth Pipes) and Naylors. The production of clay for manufacture is often reliant on the blending of different types of clay and so it is necessary to have a number of extractive areas operational.

3.4.2 With regard to the provision of clay, the NPPF expects:

*'227. Minerals planning authorities should plan for a steady and adequate supply of industrial minerals by….*

*c) maintaining a stock of permitted reserves to support the level of actual and proposed investment required for new or existing plant, and the maintenance and improvement of existing plant and equipment[81]; and,*

*d) taking account of the need for provision of brick clay from a number of different sources to enable appropriate blends to be made.'*

Footnote 81: *'These reserves should be at least 10 years for individual silica sand sites; at least 15 years for cement primary (chalk and limestone) and secondary (clay and shale) materials to maintain an existing plant, and for silica sand sites where significant new capital is required; and at least 25 years for brick clay, and for cement primary and secondary materials to support a new kiln.'*

### Factors affecting and/or indicative of demand

3.4.3 There is a steady local demand for clay due to the presence of facilities such as Wavin Ltd.'s vitrified ceramic pipe manufacturing works at Hazlehead, which currently require approximately 32,400 tonnes of clay per annum for their operations. Naylor Group also have a manufacturing plant at Cawthorne in Barnsley. This highlights the importance of reliable local resources in meeting established production needs. A key feature of clay pipe production is that it relies on a blend of clays from different sources.

3.4.4 Wavin Ltd. serves as a national supplier of water management, plumbing, and drainage systems and anticipates diversification into additional construction markets, which could significantly increase demand for clay and shale over the new Plan period. Short-term projections suggest a demand of over 100,000 tonnes per annum, potentially rising to 200,000 tonnes annually in the future. This underscores the need to secure sufficient mineral reserves to sustain both current and future manufacturing streams.

3.4.5 Wavin Ltd. aims to ensure a robust supply plan to support primary manufacturing for at least 25 years while allowing flexibility for the adoption of more sustainable materials. This approach includes evaluating existing and proposed mineral sites to align with both existing needs and potential market diversification.

3.4.6 Bromley Farm Quarry in Kirklees, located approximately 5km from the Hazlehead facility, has historically supplied clay for the manufacturing process. The facility relies on blending clay from multiple local sources, including Bromley Farm and Henperch Quarry, due to the specific physical and chemical properties required for production.

3.4.7 A planning application submitted in April 2023 for an extension to Bromley Farm Quarry (2023/62/91280) as well as the recently permitted extension to Peace Wood Quarry (2023/91949) suggests a commitment to maintaining supply, reflecting confidence in ongoing and future demand.

3.4.8 In 2023, the stock of clay material at the Hazlehead factory was estimated to last for 3 to 4 years. This timeline highlights the need for sustained supply from local quarries to prevent production interruptions. The extension to Bromley Farm Quarry was approved by Kirklees Council in March 2025 subject to the signing of a S106 Agreement.

3.4.9 The demand for clay in Kirklees is closely tied to the operations of Wavin Ltd, whose manufacturing process requires specific blends of local clay. This demand is expected to persist due to the company's role in the construction and utilities industries, alongside evidence of sustained supply strategies such as the proposed quarry extension. Increase in housebuilding would likely increase demand. Ensuring a steady supply of clay from Kirklees quarries is therefore essential to meet both local and national needs for building products.

### Factors affecting supply

3.4.10 The clay and shale extracted in Kirklees are proven to be suitable for manufacturing clay pipes locally, highlighting their importance in supporting regional building product industries.

3.4.11 The extension to Bromley Farm Quarry mentioned above increases reserves by approximately 760,000 tonnes, equating to around 25 years of supply at an extraction rate of 30,000 tonnes per annum. Without this extension, the application noted that there would be a significant loss of future fireclay and brickshale resources to support local brick factories for the next 25 years.

3.4.12 Henperch Quarry, another important local clay resource, has planning permission to operate until 31 December 2031. This provides a supply timeframe of just over seven years, necessitating consideration of additional reserves to ensure long-term supply continuity.

3.4.13 Several clay and shale sites have been nominated via the current Call for Sites process. These sites offer potential opportunities to expand the resource base though they will require assessment with regard to the suitability of their location and alignment with future supply needs.

3.4.14 Ultimately, the supply of clay and shale in Kirklees is heavily dependent on securing long-term reserves, particularly through the approval of strategic applications like Bromley Farm Quarry. Planning decisions and timely identification of new resources will be vital to sustaining the supply needed for local building product manufacturing. Any significant increase in the cost of raw materials needed to manufacture plastic pipes in the future would translate into a significant higher demand for clay pipe manufacture and demand for clay.

## 3.5 Coal

### General

3.5.1 The previous evidence paper reveals that there has not been opencast coal mining in Kirklees since 1984. It suggests that this is perhaps because the local geology of Kirklees is more difficult, and previous extraction has meant more accessible areas have already been worked. There are also no open cast coal mines anywhere else in the UK.

3.5.2 Any proposed short-term extraction of coal is likely to be opposed and would be required to meet stringent greenhouse gas assessment, mitigation and carbon offsetting measures, as demonstrated in the Whitehaven coal mine court ruling following the Supreme Court Ruling on Finch which requires the assessment of greenhouse gas emissions as part of environmental impact assessments, both direct and indirect effects [See footnotes]. In the longer term the future of use or need for coal is unknown.

3.5.3 Paragraph 224 of the NPPF states*: 'When determining planning applications, great weight should be given to the benefits of mineral extraction, including to the economy*[78]*….'*

3.5.4 Footnote 78 states: *'Except in relation to the extraction of coal, where the policy at paragraph 230 of this Framework applies.'*

3.5.5 Paragraph 230 of the NPPF states: *'Planning permission should not be granted for the extraction of coal unless:*

*a) the proposal is environmentally acceptable, or can be made so by planning conditions or obligations; or*

*b) if it is not environmentally acceptable, then it provides national, local or community benefits which clearly outweigh its likely impacts (taking all relevant matters into account, including any residual environmental impacts).'*

3.5.6 Paragraph 228 of the NPPF states: *'Minerals planning authorities should: …*

*c) indicate any areas where coal extraction and the disposal of colliery spoil may be acceptable;'*

### Factors affecting and/or indicative of demand

3.5.7 Extraction of coal as a fuel has been phased out due to the impacts on climate change and the drive for clean energy supplies. Use of coal as a fuel, is largely opposed as the UK works towards net zero climate change targets for 2050. In 2021 the then government announced that use of coal in power stations was to be phased out by 1 October 2024 unless carbon capture and storage (CCS) had been installed. Currently, in 2024, the position is that the last remaining coal fired power station in the UK, Ratcliffe on Soar, in Nottinghamshire closed on 30th September 2024. In addition, the Government made clear in a recent Written Ministerial Statement that they would be prohibiting new coal extraction licences[32]. Finally steel manufacturing in the UK is moving towards the use of Electric Arc Furnaces.

3.5.8 There has been no interest in the development of coal extraction sites in Kirklees for many years.

### Factors affecting supply

3.5.9 Coal measures exist in Kirklees but have not been worked for many years. Coal may be produced as a by-product of other mineral working in Kirklees, especially that related to clay and shale.

3.5.10 The planning statement that accompanies the application for an extension to the Bromley Farm clay quarry includes the following:

*'A small volume of coal is estimated to be encountered of varying quality, estimated at approximately 10,000 tonnes. Inferior coal will be backfilled in the void. Any coal suitable for industrial use will be exported off site.'*

This may be taken to indicate that extraction of coal as a by-product may not necessarily be seen as a positive aspect of development. Indeed, the application was approved by Kirklees Council with a condition requiring the operator to agree not to export coal off site to ensure that issues concerning climate change impacts relating to the off-site use of the coal and potential related carbon emissions were not a matter for consideration.

[32] Source: https://questions-statements.parliament.uk/written-statements/detail/2024-11-14/hcws215

## 3.6 Conclusion and Recommendations

### Aggregate

**Sandstone for use as a low-grade Crushed Rock aggregate**

3.6.1 There appears to be a healthy landbank for sandstone as a crushed rock aggregate and so whether allocation of additional sites to meet this need is necessary requires careful consideration. This is notwithstanding the fact that the LAA includes the following within its key messages:

*'viii Given West Yorkshire's reliance on adjoining authorities for higher specification aggregates, any sustainable opportunities to increase the supply of the generally lower specification aggregates produced within West Yorkshire should be considered on their merits, particularly where such proposals would facilitate the indigenous production of building materials such as artificial stone products.'*

3.6.2 Overall, the demand for sandstone for a low-grade crushed rock is likely to be maintained and the Local Plan should consider how the demand can be met by:

- Identifying the market need for sandstone as a crushed rock aggregate – defining 'steady and adequate supply'
- Encouraging the husbanding of sandstone 'overburden' for processing into a crushed rock aggregate (subject to demonstrating market need and other acceptability considerations)
- Safeguard existing resources and quarries
- Encourage the processing of sandstone derived aggregate to produce sand of a quality that may be used in concrete

## Sand and Gravel

3.6.3 The principal uses for sand and gravel are in the manufacture of concrete and concrete products, mortar and asphalt although substantial quantities may be used for construction fill.

3.6.4 Until recently there was one sand and gravel quarry at Forge Lane, Ravensthorpe producing sand and gravel in Kirklees. Extraction completed in 2023, and the quarry is now undergoing restoration using inert waste material to create the approved restored landform. In addition, part of the quarry has been compulsory purchased by Network Rail as part of the TransPennine Route Upgrade (TRU) between Huddersfield and Westtown. In Kirklees the sand and gravel resource is present along the river corridors of the Calder and to a lesser extent the Colne.

3.6.5 The demand for sand and gravel in Kirklees is expected to grow, and the new Local Plan should adopt a comprehensive approach to address this need. The following approaches should be considered when updating the Local Plan.

- **Identify the Need for Sand and Gravel:** The Local Plan should confirm the projected demand for sand and gravel within Kirklees to provide a strong evidence base for planning decisions. This should draw on the latest West Yorkshire LAA.
- **Allocate Additional Sites:** If suitable sites are promoted through the Call for Sites process (none promoted at the time of writing), the Local Plan should allocate these areas to meet the demand for sand and gravel.
- **Identify Areas of Search:** The Local Plan should review safeguarded sand and gravel resource areas to identify potential Areas of Search. These areas could be included even if they are not directly promoted, provided they show potential for development.
- **Develop Policies for Windfall Sites and Prior Extraction:** Policies should be included to guide the assessment of applications for windfall sites and the prior extraction of sand and gravel ahead of non-mineral development, allowing flexibility in responding to currently unforeseen opportunities.
- **Safeguard and Promote Importation Infrastructure:** Infrastructure that supports the importation of sand and gravel should be safeguarded and its development encouraged to provide alternative sources and enhance resilience of supply.
- **Encourage Sandstone Processing:** The Local Plan should promote the processing of sandstone-derived aggregate to produce sand of a quality suitable for use in concrete, helping to meet demand locally.
- **Consider National Survey Results:** The findings of the Government's 'Aggregates Minerals Survey 2023 for Great Britain,' expected in 2025, should be reviewed and incorporated into the Local Plan to ensure alignment with the latest national trends and data.

## Recycled and Secondary Aggregate

3.6.6 The new Kirklees Local Plan should emphasise the importance of maintaining and increasing the supply of recycled and secondary aggregate to substitute primary aggregate extraction through policies that support and enhance production capacity. This approach is supported by in paragraph 223b of the NPPF which requires MPAs to prepare planning policies which consider the contribution that secondary and recycled materials can make to substituting need for the allocation and extraction of primary aggregate resources. To encourage increased recycled and secondary aggregate supply the following approaches should be considered when updating the Local Plan.

- **Identify Capacity Shortfalls.** The separate Waste Needs Assessment should identify any shortfall in the provision of construction and demolition (C&D) waste management capacity.
- **Allocate Additional Sites**. The Local Plan should allocate additional sites if suitable locations are promoted through the Call for Sites process or identified during stakeholder engagement on the new Plan. These sites may come forward as mineral sites or waste sites.
- **Presumption in Favour of Windfall Sites**. Policies should include a presumption in favour of windfall sites for recycling facilities, provided they are proposed in suitable locations.
- **Safeguard and Promote Facilities**. The Local Plan should safeguard and encourage the development of facilities for producing recycled aggregate. This includes ensuring that positively worded policies are included in the Plan and identifying locations deemed suitable for such facilities.
- **Integrate Employment Allocations**. Employment allocations in the Plan could be assessed for their potential for the development of recycled aggregate facilities. To be consistent though this would require extensive assessment of all locations for a variety of employment uses.
- **Encourage Advanced Processing**. Policies should encourage the production of high-quality recycled aggregates through advanced processing methods, such as washing C&D waste. This requires the inclusion of supportive, positively worded policies in the Plan.
- **Align Minerals Supply and Waste Management Policies**. The Plan should recognise the significant overlap between mineral supply and waste management to ensure a coherent positive approach to sustainable resource management is included in the Plan. For example, sites allocated and/or safeguarded for the management of C&D waste should also be safeguarded as mineral supply infrastructure, where this is not already the case, in recognition of their potential to produce recycled aggregate.

## Sandstone for Use as a Building Stone (Blockstone)

3.6.7 The following conclusions and recommendations can be drawn concerning the effective planning for the use of land in Kirklees for the extraction of sandstone (blockstone) in the new Local Plan.

**Conclusions**

- **Sustained Demand**. The demand for sandstone (blockstone) is likely to remain strong due to its unique characteristics and its role in the national market.
- **Variation in Sandstone Types**. The diverse typologies of sandstone in Kirklees mean that a blanket assessment of reserve sufficiency based on total blockstone sales and reserves is inappropriate. Each type of sandstone caters to distinct markets and must be managed accordingly.
- **Adequate Overall Reserves**. While existing reserves of sandstone (blockstone) appear to be sufficient to support an ongoing supply, the variation in sandstone types highlights the need for tailored assessments and management strategies.

**Recommendations**

- **Market Differentiation**. The Local Plan should acknowledge the distinct markets for different types of sandstone and seek to address their specific demands to ensure appropriate supply across typologies. This is similar to the expectation in the NPPF that Plans should take account of aggregates with distinctive uses and plan accordingly. Policy should be included in the Plan which requires developers of non-allocated sites (assuming sites are allocated) to demonstrate that a need exists for the particular type of sandstone to be extracted which cannot be met from existing sites. Subject to the availability of robust information, the Plan should establish landbanks e.g. 7 years, for different types of building stone and establish whether there is a need for additional development to enable those landbanks to be maintained over the Plan period.
- **Safeguarding Existing Resources**. Policies should safeguard existing permitted sites and sandstone resources to prevent sterilisation by other developments (as outlined in section 5 on Safeguarding in this report).
- **Site Allocation**. In light of the ready availability of crushed sandstone aggregate, which arises from the extraction of sandstone to be used for building stone, it appears that there is no need to allocate land to provide additional certainty that such material can be supplied over the Plan period. Allocation of quarries for the extraction of sandstone should therefore only be made if they are in a suitable location and there is a need to provide certainty that supplies of sandstones are needed to meet certain building stone markets. New areas of land promoted for allocation, should therefore only be included in the Plan if it is demonstrated that the need for the particular type of sandstone that would be extracted could not be met from existing quarries. Evidence should therefore be requested, from those who have nominated sites, that existing reserves would not provide a supply that would satisfy requirements over the Plan period, and hence there is a need for the allocation of additional sites.

- **Preferred Areas**. In the event that a specific need cannot be demonstrated to justify allocation of a site nominated for the extraction of a particular type of sandstone, subject to the location of the site being assessed as suitable, the site should be included in the Plan as a 'Preferred Area'.
- **Flexible Approach to Windfall Sites**. The Local Plan should allow for the development of 'windfall' sites, including quarry extensions, provided they demonstrate proven demand and comply with location and environmental suitability as defined by Plan policies. It should be noted that in some cases the Plan allows for the extension of specific sites and nominations for such extensions have been received via the Call for Sites.
- **Annual Monitoring**. Regular monitoring of blockstone supply, categorised by sandstone type, should be implemented to provide an evidence base for assessing demand trends and informing future policy adjustments. The imposition of a condition on proposals for sandstone extraction requiring the submission of annual data from operators should be considered.

## Clay and Shale for Use in Pipe Manufacture

### Conclusions

3.6.8 The ongoing demand for clay in Kirklees, driven primarily by the Hepworth pipeworks at Hazlehead, necessitates a strategic approach in the new Local Plan to ensure a steady and adequate supply of clay throughout the plan period. While the extension to Bromley Farm Quarry will provide up to 25 years of supply, additional sources will be required to compensate for the planned cessation of extraction at Hen Perch Quarry in approximately 7 years' time.

### Recommendations

- **Identify and Define Clay Supply Needs**: Subject to the availability of robust information, establish the need for clay in the region and define what constitutes a 'steady and adequate supply' to align with the requirements of the NPPF and ensure sufficient reserves for the plan period.
- **Allocate Additional Sites**: Allocate new sites for clay extraction, which may include re-allocating sites from the existing Local Plan or identifying suitable sites promoted through the Call for Sites process. This should include considering extensions to existing quarries like that recently approved at Bromley Farm. This should follow the site selection process considered in Section 4 of this report.
- **Allow for Windfall Sites**: Permit the development of windfall sites, provided they meet a proven demand and adhere to suitability criteria outlined in the Local Plan policies, such as environmental and amenity considerations.
- **Safeguard Existing Sites and Resources**: Include positively worded policies in the Local Plan to protect existing clay extraction sites and resources from sterilisation or competing developments. This should also involve designating locations deemed suitable for future clay extraction and associated infrastructure.

## Coal

3.6.9 The Local Plan should acknowledge that coal may be produced as a by-product of quarrying for other materials in Kirklees but not encourage its extraction and clarify the position on when coal may be exported off site.

## Consideration of Supply Beyond the Local Plan Period (2044–2049)

3.6.10 As it can take many years for new mineral reserves to be identified and developed, it is important to consider the anticipated sufficiency of mineral resources beyond the formal plan period. This includes the five-year period from 2044 to 2049, immediately following the end of the Kirklees Local Plan period.

### Sandstone (Crushed Rock and Building Stone)

3.6.11 The current landbank for crushed rock sandstone aggregate is currently estimated to be approximately 49 years, based on average extraction rates. This is more than sufficient to support demand throughout the plan period and well beyond 2049, providing a secure long-term supply. For building stone, while total reserves also appear sufficient, the supply of particular sandstone types (e.g., Huddersfield White Rock, Shepley Blue) should be monitored to ensure continuity for heritage and high specification uses beyond 2044.

### Sand and Gravel

3.6.12 The supply outlook for sand and gravel remains critical. With no operational sites in Kirklees since 2023 and no new viable sites identified to date, Kirklees is expected to remain reliant on imports throughout the plan period and beyond. Unless new resources are identified, the situation is unlikely to improve in the 2044–2049 period. The need to safeguard importation infrastructure and existing resources will therefore remain essential, as will the need to pursue potential allocations or areas of search if viable resources are identified.

### Clay and Shale

3.6.13 The strategic extension of Bromley Farm Quarry provides up to 25 years of supply, suggesting sufficiency to approximately 2048–2050, depending on actual extraction rates. The ongoing availability of suitable clay at Henperch Quarry or elsewhere is also important to ensure adequate blends. Further resource planning will be required during the plan period to ensure continuity post-2044.

### Recycled and Secondary Aggregates (RSA)

3.6.14 Production of RSA currently stands at approximately 122,500 tonnes per year. Given the likely continued demand for sustainable construction materials and the emphasis on circular economy principles, the RSA sector is expected to expand. However, to maintain supply sufficiency beyond 2044, strategic investment in recycling infrastructure and long-term safeguarding of facilities will be necessary.

# 4 Approach to Site Selection

## 4.1 Introduction and background

4.1.1 The 2016 paper 'Identifying Future Mineral Sites – Development of a Methodology' ('the 2016 Minerals Methodology') produced by Urban Vision for Kirklees Council sets out the background, policy and guidance, and approach recommended for identification of future minerals sites in the adopted Kirklees Local Plan. The Kirklees Local Plan – Allocations and Designations, which was informed by the Urban Vision paper, was adopted in February 2019.

4.1.2 A separate 'Methodology Part 2 – Site Allocation Methodology', April 2017 (the '2017 Site Allocation Methodology') sets out the methodology that was used to determine whether to accept or reject site options, including minerals sites, in the Local Plan.

4.1.3 The approach to identifying the Areas of Search, Mineral Extraction Sites and Preferred Areas, and the sites and areas that were allocated in the Plan, was found sound and in accordance with national policy at the Local Plan Examination, with modifications limited to site specific details.

4.1.4 The adopted Local Plan - Allocations and Designations document includes 7 'Minerals Areas of Search', 24 'Minerals Extraction Sites' (allocated sites) and 3 'Preferred Areas'.

4.1.5 Since the Plan was produced and adopted, the context and background have changed somewhat. The National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG) have been reviewed and amended a number of times since the Kirklees Local Plan was adopted (most recently in December 2024), with some changes to policy (for example relating to Green Belt, heritage assets and designated landscapes), but the requirements affecting the selection of minerals sites remain essentially the same as in 2016.

4.1.6 In addition, while not influencing the criteria or approach to identifying sites and areas for future mineral extraction, the need for new mineral reserves, and so the number of sites and areas identified, may have changed:

- The landbanks of reserves of different minerals will have changed, reflecting sales and permission of new reserves over the last 8 years or so, and so the need for new sites and areas will have changed;
- The National and Sub-national Guidelines for Aggregates Provision (2005-2020) have lapsed and so there is no regional guideline figure or sub-regional apportionment to provide the benchmark against which provision needs to be made, although it is understood that the MHCLG is committed to producing new Guidelines in the near future;
- Forecasts of demand for aggregates are set out in the West Yorkshire Local Aggregates Assessments.

4.1.7 Note that section 3 of this report specifically concerns the supply and demand for minerals in Kirklees.

4.1.8 The NPPF (paragraph 226) requires that:

*'Minerals planning authorities should plan for a steady and adequate supply of aggregates by: …*

*(c) making provision for the land won and other elements of their Local Aggregates Assessment in their mineral plans …Such provision should take the form of specific sites, preferred areas and/or area of search and locational criteria as appropriate.'*

4.1.9 PPG[33] provides further guidance on the approach to be taken:

*Mineral planning authorities should plan for the steady and adequate supply of minerals in one or more of the following ways (in order of priority):*

- *Designating Specific Sites – where viable resources are known to exist, landowners are supportive of minerals development and the proposal is likely to be acceptable in planning terms. Such sites may also include essential operations associated with mineral extraction;*
- *Designating Preferred Areas, which are areas of known resources where planning permission might reasonably be anticipated. Such areas may also include essential operations associated with mineral extraction; and/or*
- *Designating Areas of Search – areas where knowledge of mineral resources may be less certain but within which planning permission may be granted, particularly if there is a potential shortfall in supply.*

4.1.10 PPG[34] provides guidance on factors to consider when assessing the suitability of proposed sites. This includes:

- *The suitability of each proposed site, whether an extension to an existing site or a new site, must be considered on its individual merits, taking into account issues such as:*
  - *need for the specific mineral;*
  - *economic considerations (such being able to continue to extract the resource, retaining jobs, being able to utilise existing plant and other infrastructure), and;*
  - *positive and negative environmental impacts (including the feasibility of a strategic approach to restoration).*
- *the cumulative impact of proposals in an area.*

4.1.11 PPG[35] also identifies the following specific environmental issues of minerals working and notes that *'not all issues will be relevant at every site to the same degree'*:

- noise associated with the operation
- dust;
- air quality;
- lighting;
- visual impact on the local and wider landscape;
- landscape character;
- archaeological and heritage features
- risk of contamination to land;
- soil resources;
- geological structure;
- impact on best and most versatile agricultural land;
- blast vibration;
- flood risk;
- land stability/subsidence;
- internationally, nationally or locally designated wildlife sites, protected habitats and species, and ecological networks;
- impacts on nationally protected landscapes (National Parks, the Broads and National Landscapes);
- nationally protected geological and geo-morphological sites and features;
- site restoration and aftercare;
- surface and ground water; and,
- water abstraction.

4.1.12 Specific guidance is not provided in PPG on criteria against which to assess the suitability of locations as Preferred Areas or Areas of Search, however taking the above policy and guidance into account, it is reasonable to assume that this should include consideration of the following:

- Presence of the mineral;
- need for the mineral;
- positive and negative environmental and social impacts; and,
- the cumulative impact of minerals extraction in an area.

### The 2016 Minerals Methodology

4.1.13 The 2016 Minerals Methodology report explains the history of sites coming forward for consideration from industry, through calls for sites, including:

- 2008: 13 submissions which included 10 extensions, 5 allocations, 2 retentions of sites (17 proposals in total)

[33] See PPG paragraph 008 Reference ID: 27-008-20140306
[34] See PPG paragraph 010 Reference ID: 27-010-20140306
[35] See PPG paragraph: 013 Reference ID: 27-013-20140306

- 2015: A further 5 submissions which included 2 allocations, 3-dimension stone (phases at one site) and 2 more dimension stone (7 proposals in total).

4.1.14 In addition to considering the factors identified in PPG (above), industry is expected to provide the following with submissions for proposed allocations:

- Agreement in writing from the landowner for mineral development of their land if their land is to be allocated as a 'specific site' within the Local Plan.
- Borehole data to provide supporting evidence on the quantity and quality of mineral and the likely reserve at the site
- Commitment from industry that the site would be brought forward during the plan period
- In respect of site allocations for coal, approval from the Coal Authority

4.1.15 The approach to developing a 'site search' (assessment of sites) methodology involved the following:

- Identifying minerals for which allocations may be necessary:
  - Sand and gravel
  - Sandstone as blockstone with ancillary aggregate
  - Clay and shale
  - Pipeclay
  - Coal
- Identifying where mineral resources occur (BGS, Coal Authority, industry);
- Identifying criteria and constraints to be considered, to ensure a fair (and transparent) approach to assessing and selecting new sites and extensions:

  Category 1 ('absolute') constraints:
  - Special Protection Areas (SPAs) and candidate SPAs
  - Special Areas of Conservation (SACs) and potential SACs
  - Areas of Outstanding Natural Beauty (AONB)
  - Scheduled Ancient Monuments (SAM)
  - National Trust land
  - Sites of Special Scientific Interest (SSSIs)
  - Grade 1 and 2 agricultural land
  - Country parks
  - Conservation Area
  - Public Open Space
  - Registered Parks and Gardens
  - Local Nature Reserve
  - Ground water sources

  Category 2 (preferably avoided) constraints:
  - Grade 3a agricultural land
  - Woodlands
  - River valleys
  - Settings of registered Parks & Gardens
  - Local non-statutory designations in Local Plan

4.1.16 Other factors referred to include:

- A buffer of 250m around urban areas may also be applied;
- Consideration of Green Belt excluded in line with NPPF *as 'minerals can only be worked where they are found'*.

4.1.17 Flood risk not applied as will be considered on a site-by-site basis.

4.1.18 For Areas of Search the following constraints were also applied as it was taken that the existence of these features meant there was little potential for minerals development:

- Reservoirs
- Sewage works
- Storage/parking areas attached to industrial areas
- Existing minerals workings
- Areas sterilised by waste disposal
- Cemeteries
- Existing open spaces

4.1.19 Though not mentioned in the methodology it is assumed that the above constraints were also applied to the identification of Preferred Areas.

- When considering specific sites and preferred areas, further consideration may also need to be given to:
- Public Rights of Way - often manageable e.g. through diversion, at site level and hence this is not a 'showstopper' constraint.
- Accessibility (from highways) – considered early on in the site planning process and where possible include access as part of the allocation

4.1.20 A sieving exercise through GIS would be used to identify resource areas affected by, or outside of, constraints.

### The 2017 Site Allocation Methodology

4.1.21 The Local Plan Site Allocation Methodology Part 2 (Examination document reference BP23) (The 2017 Site Allocation Methodology) also sets out the overall approach to allocation of all sites for all types of development (not only minerals sites) and consideration of constraints.

4.1.22 This applies a Red-Amber-Green (RAG) approach to identifying the severity of a range of constraints which is helpful and recognises that even constraints identified as 'absolute' may not be in practice but are likely to be more difficult to address satisfactorily if less damaging alternatives exist.

4.1.23 The criteria considered are:

- Transport
- Flood Risk & Drainage
- Environmental Health
- Biodiversity
- Historic Environment
- Open Space

- Education
- Green Belt
- Public Health
- Other Factors (National Grid buffer areas; Coal Mining; Topographical)

4.1.24 The 'Methodology Part 2 – Site Allocation Methodology' (April 2017) was used for all allocations in the Plan, including Minerals Extraction Sites, Preferred Areas and Areas of Search.

4.1.25 Once the 2016 methodology concluded that sites were justifiable, the sites were then moved onto the full site allocation methodology. The 2016 paper set out recommended approaches to site identification and a proposed methodology to inform site assessment criteria. The Council also required evidence from the operators to justify new designations.

4.1.26 The evidence considered at the Examination includes the Sustainability Appraisal (SA) of the Plan, including of minerals sites options, applying sustainability criteria.

4.1.27 The consultation draft Local Plan (2015) included 37 mineral extraction site options which were subject to SA at that stage. Following consultation on the draft Local Plan a further 13 reasonable alternative sites were identified and subject to SA. Following rejection of 1 site the remaining 49 were subject to SA. The SA informed the Council's decisions regarding which sites to allocate in the Plan.

4.1.28 The Council Response to Matters, Issues & Questions (MIQs) from the Inspectors who examined the Local Plan (Matter 11 Minerals Allocations, statement M11-1) sets out the reasoning for acceptance of each type of mineral allocation based on application of PPG criteria (Appendix 1 matrix) and 'technical consultation summaries' and SA (Appendix 2 matrices).

4.1.29 It provides more detail on the way in which the approach to identification of Mineral Extraction Sites (Specific Sites), Preferred Areas and Areas of Search was applied:

- Mineral Extraction Sites (Specific Sites): where there are willing landowners and known viable quality and quantity;
- Preferred Areas: known quality and quantity but no willing landowner at present; and,
- Areas of Search: known source of mineral of interest but no evidence on quality and quantity to make the area viable for extraction.

4.1.30 In addition, Mineral Safeguarded Areas (MSA) are identified where there are known mineral resources to be protected from unnecessary sterilisation, and Mineral Infrastructure Sites to protect sites being used for the purposes listed in paragraph 223e of the NPPF. A review of the approach to identifying Mineral Safeguarded Areas (MSA) and Mineral Infrastructure Safeguarded Areas is included in chapter 5 of this report.

4.1.31 Matrices set out how each site and area performs against 'technical consultation' criteria (biodiversity, historic environment, flood risk and drainage, highways/transport, environmental protection, other constraints, open space, public health, green belt) reflecting advice from internal (Kirklees Council) and external consultees, as well as SA objectives.

4.1.32 Appendix 5 of the Sustainability Appraisal of the Publication Draft Local Plan also sets out an audit trail of site options and the Council's reasoning for accepting or rejecting sites, based on appraisal findings.

4.1.33 The Council's Response to the MIQs confirmed that:

- **Mineral Extraction Sites:** None of the sites are affected by absolute constraints and so are likely to be acceptable in planning terms, a willing landowner is in place, and evidence submitted demonstrating mineral in sufficient quantity and quality. In addition, consideration was given to the 'operator's need' for the mineral and the likelihood of the site coming forward during the Plan period.
- **Preferred Areas:** No absolute constraints and evidence provided on quality and quantity, and on need for the mineral in future. No willing landowner.
- **Areas of Search:** Information less robust about quality and quantity of mineral, but no absolute constraints.

### Local Plan Inspectors' Report

4.1.34 The Inspectors' Report on the Examination of the Kirklees Local Plan Examination sets out their conclusions on the approach taken to identifying Mineral Extraction Sites, Preferred Areas and Areas of Search in the Plan.

4.1.35 The commentary does not consider the methodology applied and its appropriateness in detail (the site selection process is covered briefly in paragraph 456 of the report) but rather considers the areas and sites in turn and identifies issues that will require additional consideration when planning applications are determined (and refers to Policy PLP36 as setting out the criteria against which applications will be considered).

4.1.36 The approach to selection and allocation of Minerals Extraction Sites, Areas of Search and Preferred Areas appears to have been applied successfully, given that the adopted Local Plan (Allocations & Designations) includes 7 Minerals Areas of Search and 24 Minerals Extraction Sites (allocated sites) and was found sound and in accordance with national policy at Examination[36].

### Comments on the Methodologies and their application

4.1.37 As set out above, the 2016 Minerals Methodology has been used to inform the overall Site Allocation Methodology.

4.1.38 Overall, the 2016 Minerals Methodology, in terms of the information required for selection of sites and areas, the factors considered, and weight applied to these, and how they are identified and applied, is sensible and similar to site selection processes used by Mineral Planning Authorities elsewhere.

4.1.39 The identification of Category 1 ('absolute') and Category 2 ('preferably avoided') constraints is logical, although some of the 'additional' factors should be included as Category 2 constraints for consistency. In addition, even where a constraint is identified as 'absolute' in reality this may not be the case as it may be possible for site-specific measures to mitigate effects satisfactorily or exceptional need, which outweighs impacts to be demonstrated e.g. National Landscapes. The use of the term 'absolute' therefore may not be helpful. 'Higher significance' and 'Lower significance' may be more appropriate terms.

4.1.40 High-level application of constraints, while essential in screening of potential sites and areas, does not replace the need for more detailed consideration of issues and constraints, and how effects may be avoided or mitigated, when applications are submitted and determined.

4.1.41 Some of the constraints described are a little vague or generic which may make justification of decisions based on their application difficult, for example 'woodland' and 'river valleys.'

4.1.42 In addition, greater weight may need to be given to some constraints than was the case when the 2016 Methodology was developed, reflecting case law and subsequent changes made to PPG, such as regarding Green Belt and openness.

4.1.43 The *2017 Site Allocation Methodology* applies fewer criteria and applies a RAG approach which appears to be more manageable and also provides flexibility for interpretation and consideration of mitigation to manage impacts to acceptable levels. However, not all of the criteria are relevant to minerals sites and areas, and some important criteria are missing such as Listed Buildings, Air Quality Management Areas (included in Category 2), high pressure pipelines and Airport Safeguarding Zones.

4.1.44 A summary analysis of the constraints proposed in both the *2016 Minerals Methodology* and also the *2017 Site Allocation Methodology* is set out in Table 9 below. This analysis includes comments on how constraints have been applied and the need for additional consideration of their use in future selection exercises.

4.1.45 It is important to note that ultimately it will be necessary to demonstrate that mineral extraction sites proposed for allocation are deliverable which includes consideration of land ownership and operator interest.

Table 9 - Commentary on the 2016 Minerals Sites Methodology and 2017 Site Allocation Methodology

| Constraint | Comment |
|---|---|
| ***Category 1 ('Absolute' Constraints)*** | |
| Special Protection Areas (SPAs) and candidate SPAs | Relevant. Also include Ramsar sites. |
| Special Areas of Conservation (SACs) and potential SACs | Relevant. |
| Areas of Outstanding Natural Beauty (AONB) (now 'National Landscapes') | - NPPF requires avoidance 'as far as possible'. 'Exceptional circumstances' test will apply – so potentially Category 2 for sand and gravel where an urgent need can be demonstrated.<br>- Refer now to 'National Landscapes' including National Parks.<br>- Consider adding settings of National Landscapes to 'preferably avoided' criteria'. |
| Scheduled Ancient Monuments (SAM) | Relevant for specific sites. Also include Listed Buildings for specific sites. |
| National Trust land | Relevant on the basis that this is land held in perpetuity for the nation so very unlikely to be developable |
| Sites of Special Scientific Interest (SSSIs) | Relevant – although different sensitivity of biological and geological SSSIs may need to be considered.<br><br>The Local Nature Recovery Strategy (LNRS) for West Yorkshire[37] may identify additional areas of particular importance for biodiversity which should be avoided but also signpost areas for enhancement which may be suitable for mineral extraction and |

[36] Paragraph 480 of the Inspector's Report concluded that 'the proposed minerals site allocations are effective, deliverable, justified and soundly based and properly address site and infrastructure requirements, in accordance with national policy in NPPF.'
[37] Website: https://www.yourvoice.westyorks-ca.gov.uk/wynature

| Constraint | Comment |
|---|---|
| | restoration where this can deliver the enhancement through site management and restoration. |
| Grade 1 and 2 agricultural land | Relevant. Move to Category 2 with Grade 3a (NPPF definition of BMV is Grade 1, 2 and 3a) as site restoration may be to agricultural use and conserve the agricultural grade |
| Country parks | Relevant – unlikely to be developable |
| Conservation Area | Relevant |
| Public Open Space | Relevant – unlikely to be developable |
| Registered Parks and Gardens | Relevant |
| Local Nature Reserve | Relevant |
| Ground water sources | Relevant but clarify as Aquifers and 'Source Protection Zones' |
| ***Category 2 ('Preferably avoided')*** | |
| Grade 3a agricultural land | Relevant |
| Woodlands | Relevant but definition of quality required. Ancient woodlands (including PAWS[38]) should be Category 1 as irreplaceable habitats (defined in NPPF). |
| River valleys | Reasoning unclear and definition too generic. Landscape impact and flood risk |
| Settings of registered Parks & Gardens | Relevant |
| Local non-statutory designations in Local Plan | Relevant |
| ***Other considerations*** | |
| A buffer of 250m around urban areas may also be applied (noise, dust) | Relevant as a general amenity consideration. Suggest adding 'amenity' as a standalone consideration |
| Green Belt (GB) excluded in line with NPPF | Include GB in Category 2 to reflect importance of harm to openness especially with respect to ancillary development such as bunds and plant, and also to reflect 'grey belt' definition proposed in new draft NPPF. Information on type of restoration, working scheme and length of working are considerations when assessing site on impact on openness. |
| Flood risk not applied as will be considered on a site-by-site basis | Relevant and agree on the basis that NPPF defines mineral working & processing as 'less vulnerable' and sand & gravel working as 'water compatible' |
| ***Other constraints for Areas of Search*** | |

[38] Plantations on ancient woodland soils – identified as a component of irreplaceable ancient woodland habitat in NPPF glossary and in NE/FC advice

| Constraint | Comment |
|---|---|
| Reservoirs | Relevant |
| Sewage works | Relevant |
| Storage/parking areas attached to industrial areas | Relevance not clear especially only 'attached to industrial areas'. Include Local Plan allocations for non-mineral development. |
| Existing minerals workings | Not needed – extensions to existing sites (including time & depth) may be appropriate |
| Areas sterilised by waste disposal | Relevance not clear |
| Cemeteries | Relevant |
| Existing open spaces | Relevant – See Kirklees Local Plan designations 'Urban Green Space' and 'Local Green Space' (unlikely to be affected by mineral extraction). 'Open Space' defined by NPPF. |
| **2017 Site Allocation Methodology** | |
| Transport | Relevant |
| Flood Risk & Drainage | Relevant – but FZ3b is not absolute for 'water compatible' development including sand and gravel working, subject to design |
| Environmental Health | Relevant |
| Biodiversity | Relevant. Add consideration of LNRS including potential for mineral working to enable delivery of opportunities |
| Historic Environment | Relevant |
| Open Space | Relevant |
| Education | n/a for minerals |
| Green Belt (site) | Relevant. Consideration of potential effect on openness and purposes of GB |
| Public Health | n/a for minerals (at local plan stage) |
| Other Factors (National Grid buffer areas; Coal Mining; Topographical) | Relevant |

## 4.2 Conclusion and Recommendations

### Conclusions

4.2.1 The *2016 Minerals Sites Methodology* informed the *2017 Site Allocation Methodology* which was used in assessment of Mineral Extraction Sites, Preferred Areas and Areas of Search.

4.2.2 The criteria proposed in the *2016 Minerals Methodology* and the *2017 Site Allocation Methodology* have been reviewed and overall found to be sensible with some recommendations made to update these including with some additional context (See Table 9 above and Appendix 5).

4.2.3 The criteria applied in the *2017 Site Allocation Methodology* are more general, but appear to be informed by the 2016 Methodology, although do not include landscape impact which appears to be a major omission. There are a number of examples of landscape impact being considered and applied in minerals site assessment methodologies, which can vary in complexity and scope, to reflect the sensitivity of the landscape (taking account of designations) to change and visual impact.

4.2.4 The use of RAG scoring is a common way of assessing performance of sites and/or options against criteria and provides flexibility to identify mitigation measures which may be specific to the site or area being assessed.

4.2.5 The presentation of the assessments in the Accepted Site Options Technical Appraisal (2017)[39] is clear. The combination of assessment against the Site Allocation criteria and SA objectives set out in the Council's statement to the Examination is also helpful in providing robust reasoning as to selection and allocation of sites and areas.

4.2.6 The allocation of Sites, Preferred Areas and Areas of Search was found sound and in accordance with national policy at the Examination. No modifications to the sites and areas proposed for inclusion in the Local Plan were made which tends to indicate that the selection process was robust. There is no reason to consider that the same approach would not be considered sound in the future, as long as the criteria, and guidance around their consideration, reflect current national planning policy requirements.

4.2.7 There have been a number of amendments to national policy (NPPF) and guidance (PPG) since the Plan was adopted which would need to be considered including:

- Green Belt – guidance on assessment of impact on openness including spatial and visual impacts;

[39] See: https://www.kirklees.gov.uk/beta/planning-policy/pdf/examination/background-papers/BP29_1_Accepted_Site_Options_Technical_Appraisals_2016_Revised_July17.pdf

- National Landscapes (including National Parks) and their settings, and enhancement of landscape and scenic beauty;
- Heritage – assessment of significance of assets and harm.

### Recommendations

4.2.8 Most of the criteria used in the *2017 Site Allocation Methodology*, appear to remain relevant and sound as the basis for assessing the suitability of Mineral Extraction Sites (Specific/Allocated Sites), Preferred Areas and Areas of Search. Appendix 5 includes suggested revised criteria.

4.2.9 With some amendments to criteria, to make interpretation directly relevant to minerals through further consideration of those recommended in the *2016 Minerals Methodology* (see Table 9 and Appendix 5), and removal of those not relevant to minerals, the *2017 Site Allocation Methodology* should be used in future site assessment exercises.

4.2.10 Selection of sites for allocation should take account of their actual deliverability over the plan period, including demonstration of landowner and operator interest.

# 5 Approach to Safeguarding

## 5.1 Introduction and Background

5.1.1 This section of the paper considers safeguarding of minerals in Kirklees. It considers the previous background paper, current national and local plan policies and guidance and whether any changes are required.

5.1.2 The 'Minerals Safeguarding Areas (Policy Options Report; November 2015)' produced by Urban Vision for Kirklees Council informed the current safeguarding policies within the adopted Kirklees Local Plan. The safeguarding approach in the evidence paper covered safeguarding of mineral resources for:

- Coal;
- Sandstone;
- Clay and shales;
- Sand and Gravel; and
- Brick clay and fire clay.

5.1.3 The evidence paper considered buffer zones to prevent sterilisation of minerals from non-minerals development. It also addressed the safeguarding of existing and future mineral infrastructure including wharfs and depots.

5.1.4 The evidence paper put forward different options for mineral resource safeguarding: four options for safeguarding of sandstone, clay and shale, sand and gravel and brick clay and fire clay; and two options for safeguarding of coal.

5.1.5 Safeguarding of sandstone, clay and shale, sand and gravel and brick clay and fire clay:

- Option 1 – Safeguard all resource areas in a single MSA irrespective of mineral type.
- Option 2 – Safeguard the entire resource, but separately for each mineral.
- Option 3 - Safeguard the entire resource area outside of the urban areas and International Designations
- Option 4 – Safeguard a refined resource based on industry submissions and feedback on what areas should be safeguarded.

5.1.6 Safeguarding of Coal:

- Option 1 – Safeguard the entire resource area.
- Option 2 – Safeguard the entire resource outside the urban area and limit safeguarding in the urban area to regeneration and brownfield developments over 5ha in size.

5.1.7 The adopted Kirklees Plan included Option 1 and safeguarded all mineral resource types and areas with a blanket safeguarding approach. A criteria-based policy LP38 was adopted to exclude some non-minerals development from further assessment. The Inspector's Report[40] on the Examination of the Kirklees Local Plan (30 January 2019) sets out, in paragraph 451, that the *"The Council has chosen to use British Geological Society (sic) (BGS) Mapping and DCLG resources to define the mineral resource and follows BGS guidance on safeguarding the whole resource, on which consultation will take place when non minerals application are received. This ensures that the whole of the known mineral resource is safeguarded and does not need to be site specific, which has been suggested as an alternative. The exemption of various types of minor development works from consultation is also a sound approach to safeguarding the resources."*

5.1.8 Since, the Local Plan was adopted the main change to minerals planning in Kirklees is that the last operational sand and gravel site has ceased extraction. The remaining sand and gravel resources are considered inaccessible, and the impact of working would be significant from an environmental and economic stance. Secondly, extraction of coal as a fuel, has been phased out due to the impacts on climate change and the drive for clean energy supplies.

### Review of Key Evidence

5.1.9 The current Kirklees Local Plan (Strategies and Policies) was adopted in February 2019 and so it is now some 5.5 years since adoption. The Plan includes policies on minerals and in particular on mineral safeguarding and safeguarding mineral infrastructure as follows:

- Policy LP38 - Minerals safeguarding
- Policy LP39 - Protecting existing and planning minerals infrastructure
- Policy LP40 – Alternative Development on Protected Minerals Infrastructure Sites

5.1.10 Policy LP38 sets out the minerals safeguarding policy and Map 6 in the Plan shows the minerals safeguarding areas in Kirklees (see Figure 4 below). Currently almost the entire area of Kirklees (excluding the area of Kirklees that is within the Peak District National Park) is covered by Mineral Safeguarding Areas (MSAs).

[40] See: https://www.kirklees.gov.uk/beta/planning-policy/local-plan-inspectors-report.aspx

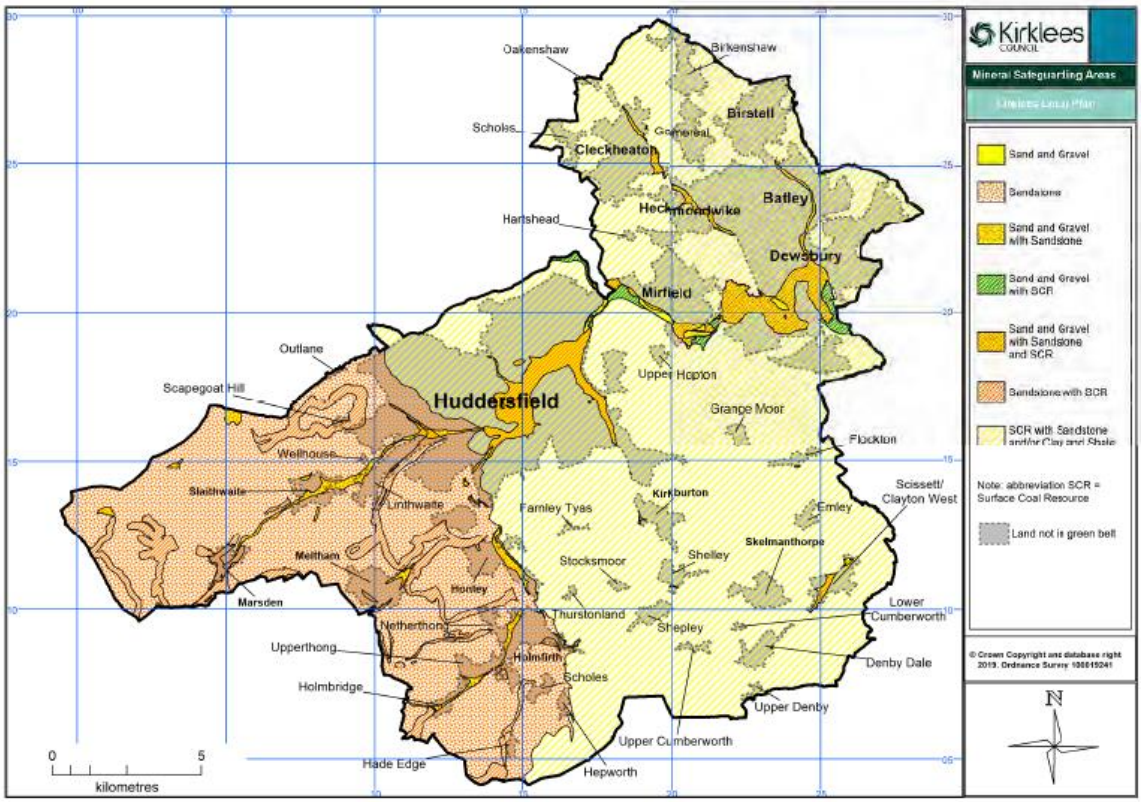



Figure 4: Mineral Safeguarding Areas[41]

5.1.11 Clause 2 of Policy LP38 sets out the criteria where safeguarding policy will not apply to proposals for certain types of surface development which are considered unlikely to lead to the long-term sterilisation of mineral resources. A key exclusion criterion for Policy LP38 is for development on sites of less than 1,000 $m^2$. Clause 1 of Policy LP38 sets out the circumstances where development will be permitted within MSAs and the criteria to be met and evidence to be supplied including the requirement for 'Mineral Resource Assessments' (MRAs).

## Review of National Policy and Guidance

### National Planning Policy Framework

5.1.12 Paragraph 222 of the National Planning Policy Framework (NPPF December 2024) identifies that *"minerals are a finite resource, and can only be worked where they are found, best use needs to be made of them to secure their long-term conservation."*

5.1.13 Paragraph 223 of the NPPF expands on the protection of this finite resource and sets out in criterion 223c that planning policies should:

[41] Source: Map 6 Minerals Safeguarding Areas – Kirklees Local Plan Strategies and Policies (2019)

*"safeguard mineral resources by defining Mineral Safeguarding Areas and Minerals Consultation Areas[77]; and adopt appropriate policies so that known locations of specific minerals resources of local and national importance are not sterilised by non-mineral development where this should be avoided (whilst not creating a presumption that the defined resources will be worked)".*

[NB footnote 77 of the NPPF sets out that the use of Minerals Consultation Areas is primarily for use in two Tier Areas.]

5.1.14 Annex 2 of the NPPF defines Mineral Safeguarding Areas as *"An area designated by minerals planning authorities which covers deposits of minerals which are desired to be kept safeguarded from unnecessary sterilisation by non-mineral development"*. The existing safeguarding policies within the adopted Kirklees Local Plan were informed by paragraph 143 of NPPF 2012 version.

5.1.15 Paragraph 223 criterion e), sets out that planning policies should *"safeguard existing, planned and potential sites for: 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".* This guidance is reflected in Policies LP39 and LP40 of the adopted Kirklees Local Plan.

5.1.16 The NPPF provides guidance in paragraph 225 to local planning authorities when determining planning applications that they *"should not normally permit other development proposals in Mineral Safeguarding Areas if it might constrain potential future use for mineral working".*

5.1.17 In paragraph 227 criterion b, *"encouraging safeguarding of important minerals"* is regarded as one way in which mineral planning authorities (MPAs) can plan for a steady and adequate supply of industrial minerals.

5.1.18 The current version of the NPPF was updated in December 2024 (2024 version) but no changes were made to minerals guidance within the NPPF.

**Planning Practice Guidance**

5.1.19 Paragraph 003 ID27-003 20140306 of PPG sets out the steps that MPAs should take to safeguard mineral resources:

Use *'the best available information on the location of all mineral resources in the authority area. This may include use of British Geological Survey maps as well as industry sources.'*

5.1.20 To define MSAs, PPG also recommends consultation with the minerals industry, other local authorities, local communities and other relevant interests. MSAs once identified should be set out on the policies map that accompanies the Local Plan.

5.1.21 PPG also states that clear development management policies for handling non-minerals development in MSAs should be set out and what action applicants for development should take to address the risk of losing the ability to extract the resource. This may include policies that encourage prior extraction of minerals, where practicable, if it's necessary for non-mineral development to take place in MSAs and to prevent the unnecessary sterilisation of minerals. It advises that detailed advice on mineral safeguarding can be found in the British Geological Survey (BGS) report *"Mineral Safeguarding in England: good practice advice"* OP/11/046.

5.1.22 The PPG also provides guidance on whether MSAs should be defined in designated areas and urban areas, advising that this should be done where it is necessary to do so. It identifies that, for example, safeguarding of minerals beneath large regeneration projects in brownfield land areas can enable suitable use of the mineral and stabilisation of any potentially unstable land before any non-minerals development takes place. (Paragraph: 004 Reference ID: 27-004-20140306)

5.1.23 In relation to mineral infrastructure sites, the NPPF mentions safeguarding in paragraph 223e, as set out above. The PPG advises that these sites should be available when needed and sensitive or inappropriate development that would conflict with the uses of these sites should be prevented. The PPG also advises that combining safeguarded sites for storage, handling and transport of minerals with those for processing and distribution of recycled and secondary aggregate should be considered.

## 5.2 Review of the Methodology to Mineral Safeguarding

5.2.1 The BGS Report identifies a seven-step approach to producing mineral safeguarding areas and policy based on robust evidence shown by the flow chart in its Appendix 1. This approach was followed by Urban Vision for the 2015 Evidence Paper, but it is considered that to ensure the new Plan is based on sound evidence the steps should be reviewed and checked that they follow up to date information.

5.2.2 Both the NPPF and PPG identify and define: the key purpose of identifying Mineral Safeguarding Areas is not to provide any expectation that the mineral will be worked in any particular location, but rather to draw the attention of developers and planners to the existence of where proven deposits of mineral are located, which may be of economic importance in the future and ensure that they are not unnecessarily sterilised by non-mineral development. Government guidance is clear that just because a minerals resource is defined within a Mineral Safeguarding Area there is no presumption that the resources will be worked.

5.2.3 In deciding which mineral resources, with Kirklees, to define within an MSA, the BGS *"Mineral Safeguarding in England: good practice advice"* OP/11/046 is clear Step 1 should be to *"Identify the Best Geological and Mineral Resource Information".*

5.2.4 The *Kirklees Minerals Safeguarding Report (November 2015)* identified that the primary source of information is the literature provided within the *BGS Resource Data for West Yorkshire* (CR/04/172N 2006). In addition, the Coal Authority had prepared a Coal Resource Map to assist in defining safeguarding areas for coal. These sources of information are still relevant in 2024.

5.2.5 Step 2 of the BGS methodology is to decide which mineral resources to safeguard and the physical extent of the MSAs. The BGS recommends that

*"The majority of extensive mineral resources that are identified will cover areas of open countryside. The volume of applications submitted in these areas and therefore considered on safeguarding grounds are likely to be small, despite the relative size of the MSA. In most cases therefore, MSAs should cover the full estimated extent of mineral resources. The instances in which an application may take place in a MSA can be set out in development plan policy, and the policy used as a tool to refine the development management process. However, in certain circumstances, MSAs covering resources that are not considered of any great national or regional importance and that occur extensively over the area of a MPA, could be reduced in size."*

5.2.6 Currently, the MSAs in Kirklees cover almost the entire area of mineral resource including within the urban areas, with the Policy LP38 setting out criteria where development can proceed in urban areas. This approach is consistent with the 2011 BGS Guidance which explains the benefits as follows:

*"MPAs should define MSAs to highlight the potential for extracting minerals (such as shallow coal, river terrace sand and gravel or Etruria Formation clays) beneath large regeneration projects and brownfield sites. Mineral development on such sites, particularly on the fringes of the urban areas, may be of economic advantage due to the availability of mineral on site for the development proposed, or the shorter distance to market if sold. In the case of coal, prior extraction can rectify issues associated with land stability. If applicants for non-mineral development are not aware of the presence of a mineral resource below the surface when they are making planning applications, opportunities for prior extraction for some or all mineral resources may be missed. Defining MSAs in urban areas avoids disputes over the definition of what constitutes an urban area, and it reduces the need to amend MSAs to reflect urban expansion. Any concerns regarding the number of planning applications that might be referred to the MPA as a consequence of defining MSAs in urban areas can be managed by simple exemption criteria".*

5.2.7 The guidance also notes that *"in exceptional circumstances, the definition of MSAs to include urban areas may not be justified. This is particularly the case where the method of working is unlikely to be acceptable in close proximity to an urban environment, such as blasting of hard rock resources."*

5.2.8 As discussed above, the PPG refers to safeguarding of mineral resources in urban areas and "it advises this should be done where it is necessary to do so." **It is recommended that the need and ease of management to maintain the blanket safeguarding of all mineral resource types in Kirklees should be checked and balanced during the preparation of the new Local Plan.** This is based on discussion on how effective blanket safeguarding is applied or administered and also on the changing economic value of coal.

5.2.9 In the *2015 Safeguarding Evidence Paper* the minerals which were identified in Kirklees to consider for safeguarding were:

- Coal
- Sandstone
- Sand and Gravel
- Brick clay and Fire clay

## Coal

5.2.10 Currently, the position is that the resource should be safeguarded as a mineral as its economic value and future uses are reviewed.

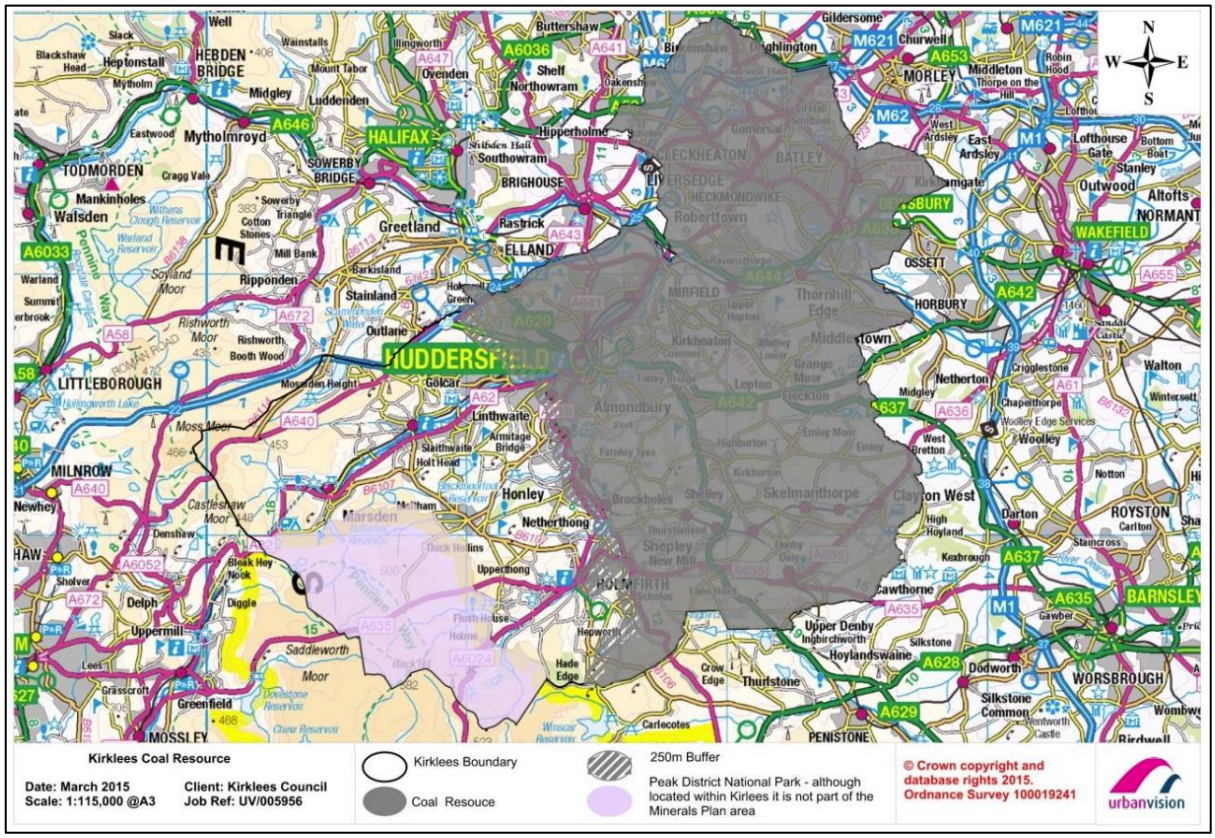



Figure 5: Kirklees Coal Resource[42]

5.2.11 As Figure 5 above, taken from the 2015 Evidence Report, above shows, the coal resource in Kirklees lies across the eastern half of the local authority area.

5.2.12 It is recommended that the Local Plan should consider and confirm whether a safeguarding approach to coal should be maintained through consultation with the industry. A review should consider whether:

- a blanket safeguarding approach including urban areas should remain; and,
- a requirement to prior extract coal if development threaten to sterilise it would be justified, given the current economic position of coal.

[42] Source: Minerals Safeguarding Areas – Policy Option Report Urban Vision (Nov 2015)

### Sandstone

5.2.13 The BGS report for West Yorkshire covering Kirklees identifies that the Carboniferous Millstone Grit and Pennine Coal Measures of Yorkshire have traditionally been extensively used as a source of building stone and these areas continue to be so. The sandstone resource is located in the south west of Kirklees and sandstone extracted serves national and local markets for building stone and flagstone and local markets for aggregate. In addition, when extracted these sites produces crushed rock which is a low-quality aggregate.

5.2.14 Important types of sandstone are Huddersfield White Rock and Shepley Blue. Extracted primarily for building stone. Huddersfield White Rock has been worked at numerous quarries around Holmfirth and is worked currently at the Windy Ridge and Hillhouse Edge Quarries at Cartworth Moor. The Shepley Blue sandstone is extracted around Shepley at Appleton and Sovereign quarries by Marshalls. Substantial permitted reserves of gritstone for dimension stone extraction exist in the area.

### Sand and Gravel

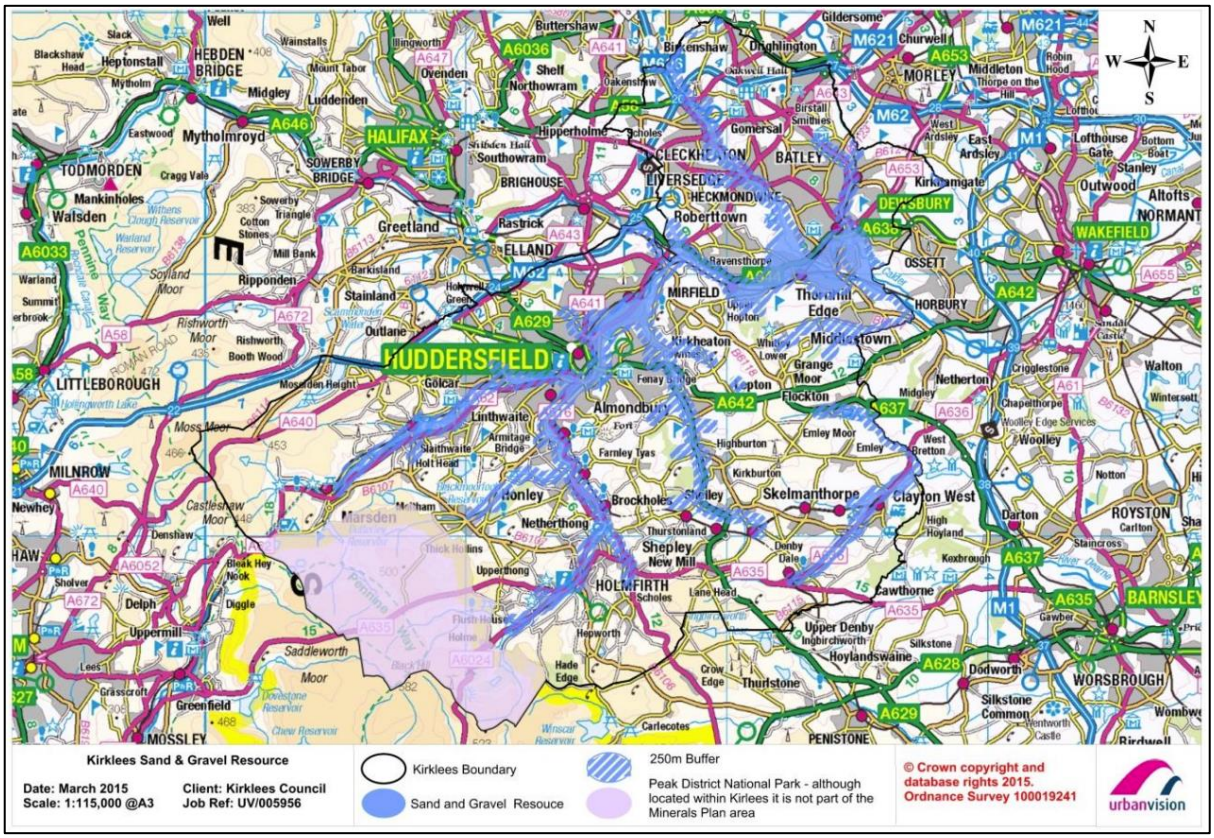
5.2.15 Sand and gravel as an aggregate remains an economic mineral resource. However, the location of the remaining sand and gravel resource along the Calder and Colne Valleys within Kirklees (see Figure 6 below) makes any extraction uneconomic and is likely to incur significant environmental impacts especially when compared to sand and gravel extraction elsewhere in the UK or supply from marine sources.

5.2.16 Section 3.2 of this report recognises that construction operations in Kirklees are reliant on imports of higher quality sands and gravels from outside the area. Data from 2019 indicates that the main source was predominately from north Nottinghamshire. Areas of importation may change over time, and this is dependent on supply, infrastructure and market demands within Kirklees. In 2025 more recent data regarding the sources of imports of sand and gravel to Kirklees will be published in the latest Aggregates Minerals Survey for England (and Wales).

5.2.17 Consultation on the updated Local Plan should consider whether safeguarding of the entire sand and gravel resource should be maintained even though the economic and environmental impacts of any future working are likely to make them unacceptable.

Figure 6: Kirklees sand and gravel resource[43]

Brick clay and Fire clay



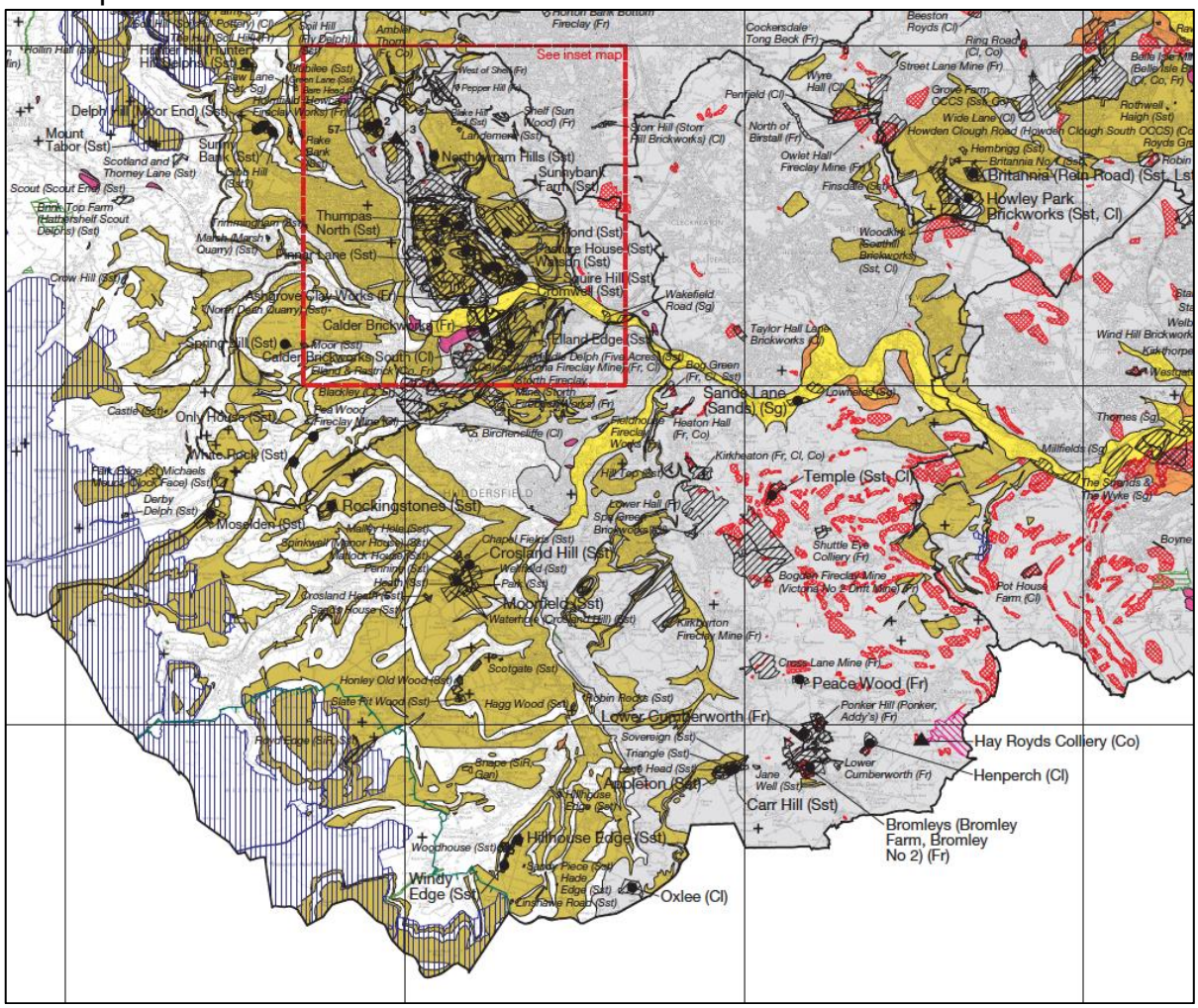

[43] Source: Minerals Safeguarding Areas – Policy Option Report Urban Vision (Nov 2015)

5.2.18 As with sandstone, the Plan review should consider whether it is necessary to have a blanket approach for brick clays and fire clays or whether there is sufficient resource outside of urban areas. In addition, whether it is necessary to still safeguard mineral resources under built development, as they are in effect sterilised by that development and have very little prospect of working.

## Findings of Current Mineral Safeguarding Area Methodology

5.2.19 Figures 4 to 6, present above are taken from the Urban Vision Evidence Paper 2015 and highlight the broad geological mineral resources by type and include a 250m buffer.

5.2.20 Figure 7 below is the BGS Map for West Yorkshire (comprising the Metropolitan Districts of Bradford, Calderdale, Kirklees and Wakefield and City of Leeds) highlighting the minerals resources of the Kirklees Authority. The quarries identified are historic and represent activity when the report was published in 2006.



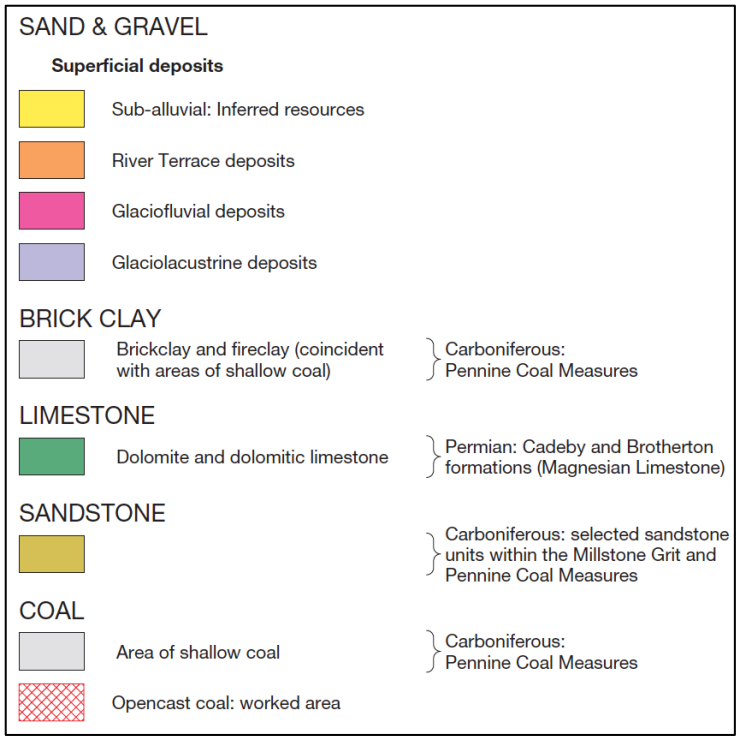

SAND & GRAVEL
Superficial deposits
Sub-alluvial: Inferred resources
River Terrace deposits
Glaciofluvial deposits
Glaciolacustrine deposits
BRICK CLAY
Brickclay and fireclay (coincident with areas of shallow coal)
Carboniferous: Pennine Coal Measures
LIMESTONE
Dolomite and dolomitic limestone
Permian: Cadeby and Brotherton formations (Magnesian Limestone)
SANDSTONE
Carboniferous: selected sandstone units within the Millstone Grit and Pennine Coal Measures
COAL
Area of shallow coal
Carboniferous: Pennine Coal Measures
Opencast coal: worked area

Figure 7: BGS Map for West Yorkshire (2006) Scale 1:100,000

5.2.21 As noted above, Map 6 in the minerals section of the adopted Kirklees Local Plan (Figure 4 above) sets out the Minerals Safeguarding Areas in Kirklees reflecting a blanket approach to safeguarding all the mineral resources in Kirklees. The 2006 BGS Map for West Yorkshire Minerals (shown in Figure 7 above) shows more selective coverage, particularly in relation to the sandstone resource in the south west of Kirklees.

5.2.22 If any changes are proposed to the Kirklees MSA Map and boundary, as part of the review, it is recommended that consultation with the minerals industry, manufacturers and businesses takes place prior to proposing this in a draft of any updated Plan. Such consultation would be consistent with Step 3 of the *BGS Methodology for Safeguarding Minerals* i.e. to undertake consultation on draft MSAs.

### Review of Kirklees Safeguarding Approach Policy LP38

5.2.23 The current approach to mineral safeguarding in Kirklees is to have MSAs which cover all resources identified on the MSA Plan and to include a Local Plan policy, Policy LP38, which sets out the criteria for certain types of development proposal to be exempt from safeguarding and requires additional information for non-exempt proposals.

5.2.24 The exemption criteria of the adopted Policy LP38 are set out below:

a) extension to existing buildings and the erection of ancillary buildings within their curtilages;

b) developments on sites of less than 1,000 $m^2$ except for proposals within 250 metres of an existing planning permission for mineral extraction;

c) minor development (such as walls, gates and access);

d) temporary uses of sites for periods of less than 5 years;

e) amendments to previously approved developments such as Section 73 variations or non-material amendments;

f) applications for Listed Building Consent;

g) reserved matters;

h) applications for advertisement consent

5.2.25 The exemption criteria a, c, d, e, f, g and h appear reasonable. There are other additional criteria options which could be considered by Kirklees Council, which potentially may mean fewer proposals are caught having to undertake mineral resource assessment work, including the following set out below:

i) Applications that are in accordance with allocations within this adopted Local Plan, where the Plan took account of prevention of unnecessary mineral sterilisation and determined that prior extraction should not be considered when development applications in a Mineral Safeguarding Area came forward;

ii) Prior notifications (telecommunications; forestry; agriculture; demolition);

iii) Certificates of Lawfulness of Existing or Proposed Use or Development (CLEUDs and CLOPUDs);

iv) Applications for works to trees (not defined as development).

5.2.26 Calderdale District Council in their adopted Local Plan (2023) minerals safeguarding policy, Policy MS2, included a box setting out safeguarding exemption policy covering prior notifications, CLEUDS, CLOPUDs and tree works. It is suggested that Kirklees Council consider these exemptions too.

5.2.27 Criterion b of Policy LP38 exempts development sites of less than 1,000 square metres ($m^2$) from the need to consider safeguarding. Within urban areas in Kirklees this area criterion may catch many developments and as such, further consideration or refinement should be given to whether this criterion is disproportionate to the achievement of adequate mineral safeguarding i.e. whether it generates additional work for developers and Kirklees Council which results in little benefit.

5.2.28 Firstly, criterion b should be clear what the 1,000 $m^2$ value is referencing whether it is floorspace or site area. The 1,000 $m^2$ area criterion within this policy is thought to derive from the definition of “major development” in the Town and Country Planning (Development Management Procedure) (England) Order 2015, but this is one part of the definition and references the floorspace of a building or development, rather than the site area. The definition of major development in the procedure order is slightly wider and includes the following “For housing, development where 10 or more homes will be provided, or the site has an area of 0.5 hectares or more. For non-residential development it means additional floorspace of 1,000$m^2$ or more, or a site of 1 hectare or more, or as otherwise provided in the Town and Country Planning (Development Management Procedure) (England) Order 2015.

5.2.29 1,000 $m^2$ equates to 0.1 of a hectare, whilst cumulative effects of sterilisation are an important consideration it is suggested that Kirklees consults on raising the threshold to reduce the requirement for further assessment in urban areas such that only larger urban regeneration projects are captured. Other MPAs use Local Plan settlement boundaries to define the urban area and identify where mineral safeguarding rules are applied differently.

5.2.30 In the past, size thresholds of sites exempt from mineral safeguarding have been avoided or kept small, because coal can and could be extracted from small sites. However, given the current status of coal extraction, as discussed in this paper, it may be that a blanket approach to safeguarding all mineral types in urban areas should be reconsidered and the criteria adjusted to reflect the unlikely prior extraction of clay, sand and gravel and sandstone from sites of 1,000 $m^2$ or that coal would be economic or safe to extract in existing built-up areas.

5.2.31 Currently the exemption criteria set out in Policy LP38 mean that some development proposals will not be exempt and therefore have to demonstrate why they should proceed in an MSA. The impact of this will include delay on determination of a proposals and the need for additional developer and officer resources whilst information is provided and accepted.

5.2.32 Policy LP38 also sets out the criteria that development in safeguarding areas which is not exempt must meet in order to gain planning permission. The criteria are as follows:

*1. Surface development will only be permitted within a Mineral Safeguarded Area where it has been demonstrated that:*

*a) the mineral concerned is proven to be of no economic value as a result of the undertaking of a Mineral Resource Assessment; or*

*b) the development will not inhibit mineral extraction if required in the future; or*

*c) there is an overriding need for the development; or*

*d) the mineral can be extracted prior to the development taking place*

5.2.33 There is no explanation in the text of what a “Mineral Resource Assessment” should include or where an applicant would find out what Kirklees would expect to find in one. Guidance could be included in the supporting text setting out what is required. Alternatively reference within the policy criterion to Mineral Resource Assessment could be removed and instead the policy could include additional criteria with onus on the applicant to demonstrate that the mineral to be lost is of no economic value and/or cannot be extracted prior to development without unacceptable adverse impacts on the environment or community.

**Conclusions on MSA and Policy LP38**

5.2.34 Overall, the current Kirklees Safeguarding Mineral Areas Map and Policy LP38 will be effective if applied consistently and appropriately. The blanket safeguarding of all resources should prevent minerals resources within Kirklees from being sterilised without consideration. However, the MSA Plan will only be effective if consulted and if the criteria from Policy LP38 are appropriate and applied to all developments.

5.2.35 It would be helpful to review and understand how many applications are caught by the exemptions and how many applications have to provide MRAs or equivalent information.

5.2.36 The safeguarding exemption criteria are generally reasonable, although the 1,000 $m^2$ criteria should be reviewed and increased or adjusted in urban areas or applied to specific mineral types, such as coal in urban areas. Urban areas could be defined to tie in with settlement boundaries shown on the Local Plan Policy maps.

5.2.37 The criteria which set out the information to be provided by applicants when development is not exempt should be expanded upon in the supporting text to the policy or within the policy itself. Alternatively, the current requirement for Mineral Resource Assessments could be removed and additional criteria added to the policy requiring applicants to demonstrate that the safeguarded mineral has no economic value or need and cannot be prior extracted without unacceptable adverse environmental or community impacts.

5.2.38 Any review of the blanket approach to MSA safeguarding boundaries should be discussed with industry.

5.2.39 Any existing or new developments allocations in the Plan should be screened to see if they are located within an MSA, and whether MRA has previously been undertaken or would be required and whether prior extraction would be required to enable the development to proceed. This information could be included in the development site allocation policy.

5.2.40 The changing economic and environmental position of coal and sand and gravel resources should be reviewed by Kirklees to see if these resources still need safeguarding for future generations, as they are currently. Any review of the blanket approach to MSA safeguarding boundaries should be discussed with industry as set out in the BGS best practice methodology.

**Review of Policies LP39 and LP40**

5.2.41 Policy LP39 safeguards existing known mineral infrastructure sites and proposed future infrastructure sites. In reviewing the evidence, it is clear that the list needs updating to include current infrastructure sites and remove those that are no longer required. The update to this list may in part be informed by the Call for Sites which Kirklees Council has commenced as part of the Local Plan review. See Appendix 1 for current list of Mineral Infrastructure Sites to be added and removed from Policy LP39 and LP40 as of Autumn 2024. This list has been informed by the current Call for Sites.

5.2.42 However, it appears uncertain how the policy protects unknown infrastructure sites which come into existence over the lifetime of the plan, as the current wording makes no provision to protect newly developed or identified sites. It is suggested that to overcome this, wording is added to the policy and in addition to the supporting text which refers to a list of safeguarded infrastructure sites.

5.2.43 An option is to remove the list of actual sites from within Policy LP39 and instead reference given to the Authority Monitoring Report which could include a list of permitted infrastructure sites that is updated on at least an annual basis. Policy words could be *"The infrastructure safeguarded by this policy is illustrated on the Policies Map, listed in 'Appendix X - List of Safeguarded Minerals Sites' and updated by the Authority Monitoring Report."* This will enable the list to be added to.

5.2.44 Policy LP40 seeks to protect safeguarded infrastructure from non-mineral development. The policy could be strengthened as there is a risk from future non-mineral development in the vicinity of existing mineral infrastructure sites. Paragraph 200 of the NPPF (2024) identifies that planning policies should effectively ensure that new development can be integrated effectively with existing development. It goes onto state that *"where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or 'agent of change') should be required to provide suitable mitigation before the development has been completed."* This is increasingly a threat to existing minerals infrastructure and operations, as the need to develop housing is significant within local authority areas.

5.2.45 It is suggested that an agent of change criteria is added to Policy LP40. Wording could be for example *"Where non-mineral development is proposed within proximity to a safeguarded site (n.b. wider than infrastructure safeguarding could include existing mineral and secondary sites too), it will need to demonstrate that appropriate mitigation measures will be applied to minimise the effects of the mineral site on its occupiers. If, after applying the 'agent of change principle', there still remains some risk of constraint to the mineral operation, the development will only be supported if the merits of the development clearly outweigh the effect on the safeguarded site."*

**Conclusion for Policy LP39 and Policy LP40**

5.2.46 These existing policies seek to protect known existing and future mineral infrastructure sites. Where a site is not known and becomes a minerals infrastructure site, the current wording of Policy LP39 affords no protection. It is suggested an up-to-date list, which is maintained in the Authority Monitoring Report, as a way of affording future protection to new mineral infrastructure sites. This list can also sit under the adopted Local Plan on any website. This latter option may be increasingly more effective, if the requirement for regular monitoring reports is changed. Publication of lists of sites on an LPA website (to be updated as required i.e. if new sites come forward and are permitted mid Local Plan period) will need confirmation that this legally can form part of the Local Plan to be upheld and enforced.

5.2.47 Policy LP40 addresses safeguarding of mineral infrastructure sites from proposed non mineral development. However, there is no "Agent of Change" policy within the adopted Local Plan to protect existing mineral sites, secondary aggregate sites, or existing safeguarded infrastructure sites. Policy LP40 could be amended to include this, or an additional safeguarding policy added. An amendment to this effect is supported by NPPF (2024) guidance paragraph 200 as discussed above.

## 5.3 Recommendations Regarding Safeguarding Approaches

### *Safeguarding Plan*

5.3.1 Review whether in the urban areas, which are so constrained, that the blanket safeguarding can be removed for some or all mineral types and consult on options. The definition of urban areas for the purposes of removing Mineral Safeguarding Areas should be based on the settlement boundaries as defined in the District Local Plan Maps. The MSAs should then be updated periodically to ensure that any changes to settlement boundaries are taken into account.

### *Policy LP38 – Review*

5.3.2 Consider whether within urban areas the size of exempted development area can be increased beyond 1,000 $m^2$ such that safeguarding would be afforded to regeneration or larger scale development sites, where sterilisation and prior working of the mineral is a more realistic expectation.

### *Consider additional criteria to the mineral exemption criteria.*

5.3.3 Consider additional exemption criteria for developments where prior extraction is unlikely to be feasible, such as small-scale urban developments, specific brownfield sites, and infrastructure projects.

5.3.4 If the requirement for MRAs is to be retained and requested of applicants, consider additional guidance on supporting information within the pre-application and validation information and within the policy text for developers so that they are prepared early for the requirements to meet the mineral resource type assessments and justification for their development in MSAs. Revise Kirklees planning validation requirements to explicitly state when and how MRAs should be submitted to help avoid delays in the planning process.

5.3.5 Alternatively remove the requirement for MRAs in this policy and expand the criteria requiring the applicant to prove no economic need or value for the safeguarded resource and/or that prior extraction could not be undertaken without significant adverse environmental and/or community impacts.

### *Policy LP39 - Review*

5.3.6 While existing, potential and future mineral infrastructure sites will be included on the Policies Map a dynamic updating list approach e.g. via the Authority Monitoring Report, should be introduced to complement the Policies Map to ensure the record of such sites can be kept up to date.

5.3.7 Ensure that newly permitted mineral sites are automatically considered for safeguarding.

### *Policy LP40 - Review*

5.3.8 Include an Agent of Change Policy for Non-Minerals Development proposed in proximity to existing Safeguarded Minerals Infrastructure Sites and consider widening this out to prevent closure of existing operational safeguarded mineral infrastructure and secondary/aggregate recycling sites.

5.3.9 Clarify mitigation expectations for non-mineral developments near safeguarded sites to avoid operational restrictions on existing mineral facilities.

### *Strategic Policies*

5.3.10 Greater weight may be afforded to these policies to safeguard mineral sites and infrastructure if it is made clearer that the Kirklees Local Plan minerals safeguarding policies, Policy LP38, LP39 and LP40 are strategic long-term policies which help to deliver over the plan period the vision and objectives of Kirklees Council.

5.3.11 Ensure that safeguarding policies align with national climate change commitments, particularly in relation to coal and other fossil-based resources.

5.3.12 Review whether the economic and environmental justification for safeguarding coal and sand & gravel resources remains valid given current market conditions and policy on net zero.

### *Implementation and Monitoring*

5.3.13 Assess the effectiveness of current safeguarding exemptions by reviewing the number of applications caught by exemption criteria and those requiring MRAs.

5.3.14 Screen proposed development allocations within the Local Plan to determine if prior extraction considerations should be applied.

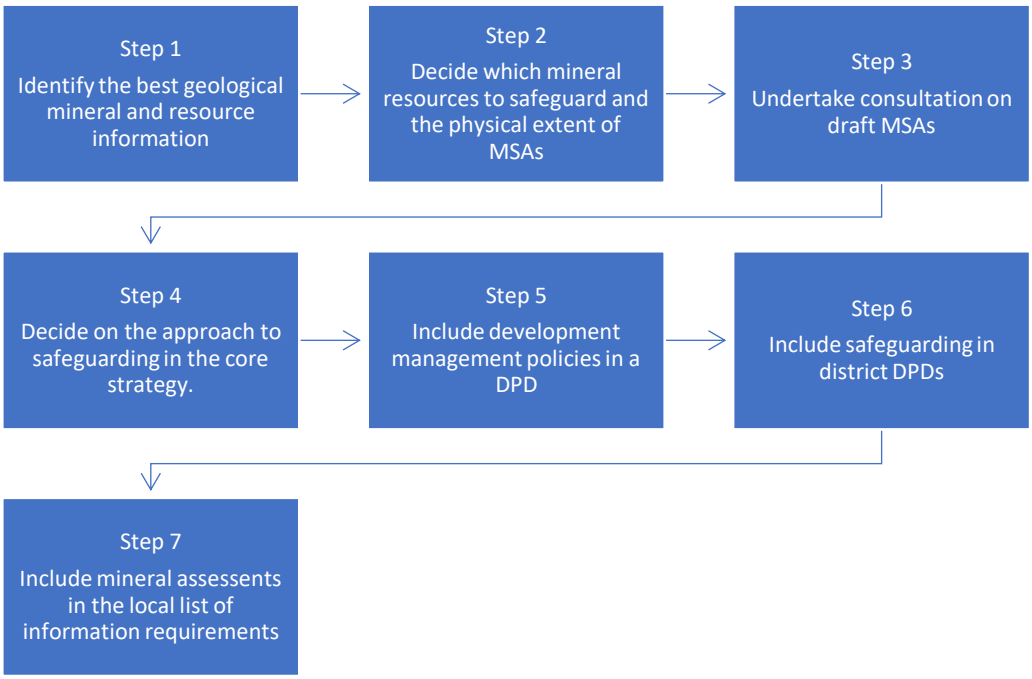



Figure 8: BGS Seven Step Approach to Mineral Safeguarding

# 6 Approach to Planning for Hydrocarbons

## 6.1 Introduction

6.1.1 This section of the paper considers the existing Local Plan background paper and policies on hydrocarbon development. It also considers current UK policy on hydrocarbons development in terms of energy supply, climate change and net zero policy.

6.1.2 The 2015 paper *'Oil and Gas Extraction – Background Paper'* produced by Urban Vision for Kirklees Council sets out the background to planning for oil and gas (hydrocarbon) exploration and production and was used to inform hydrocarbon policies in the Kirklees Local Plan. It sets out what onshore hydrocarbons are and the methods by which they are explored, appraised and produced. The evidence covered conventional and unconventional hydrocarbon development.

6.1.3 Hydrocarbon development is subject to the Department of Energy Security and Net Zero (DESNZ) issuing exploration and production licences, known as *'Petroleum Exploration and Development Licences'* (PEDL), to suitably qualified oil and gas companies. In 2015 there were no PEDLs covering any areas in Kirklees. PEDLs are awarded during specific licensing rounds, and it was unknown whether any licences would be issued under the period of the Local Plan. There is hydrocarbon resource in Kirklees which could in theory be exploited and so the background paper identified draft hydrocarbon policies.

6.1.4 The adopted Kirklees Local Plan 2019 contains two hydrocarbon policies covering the three stages of hydrocarbon development exploration, appraisal and production:

- LP41 - Proposals for exploration and appraisal of hydrocarbons; and
- LP42 - Proposals for production of hydrocarbons.

6.1.5 These policies were prepared in accordance with paragraph 147 of the then National Planning Policy Framework (NPPF 2012 version) on hydrocarbons. The NPPF has been updated since and the current version is dated 2024. Policy on hydrocarbon planning in the UK is set out in paragraphs 228-230, but there are no changes within this which require changes to the adopted policy wording.

6.1.6 However, since the background paper was drafted and whilst the 2019 Kirklees Local Plan was being prepared, the UK context and approach to energy, climate change and hydrocarbon development has changed as it now works towards Net Zero $CO_2$ by 2050 in relation to global warming mitigation targets.

6.1.7 As set out above, this section of the paper considers the new policy context in the UK since the 2015 Background Paper was published and whether Kirklees Council should update either their existing hydrocarbon policies and/or supporting text in the Local Plan to reflect this change.

### UK Hydrocarbon Energy Policy and Net Zero

6.1.8 Hydrocarbons minerals, oil and gas in the UK are used in the manufacture of petrochemicals and pharmaceutical products, but more importantly in the supply of energy. However, the UK economy is transitioning away from its use of fossil fuels. In 2023 68% of the UK primary fuel energy production was from oil and gas. (Source: DESNZ)

6.1.9 In 2015, the 196 parties of the United Nations Framework Convention on Climate Change (UNFCCC) adopted the Paris Agreement. Its overarching goal is to hold *"the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognising that this would significantly reduce the risks and impacts of climate change".* Limiting global warming to 1.5°C requires reduced global carbon dioxide emissions to at least net zero by the 2050s.

6.1.10 As such, whilst fossil fuels continue to play an important role in the transition to greener supplies of fuel for electricity, there has been no new onshore PEDL round, since 2014.

6.1.11 In November 2019, the Government said it would stop issuing Hydraulic Fracturing Consents (fracking) and, whilst there was a brief change in this policy in 2022 under the Liz Truss Conservative Government, this was reinstated later that year by the Sunak Conservative Government.

6.1.12 In July 2024 a new Labour Government was elected under Sir Keir Starmer. The new Labour Government is committed to net zero by 2050 and to a faster switch to clean energy replacing fossil fuel use and also a commitment to security of supply. There has been no indication that the Government has considered lifting the moratorium on fracking (Hydraulic Fracturing Consents) and given its drive to clean energy, this ban is likely to remain in place.

6.1.13 The new Labour Government lifted the ban on onshore wind projects and has granted planning consent for a number of larger scale solar energy projects. In relation to oil and gas, for UK offshore oil and gas, the new Government has stated that oil and gas production in the North Sea will be a key component of the UK energy landscape for decades to come as it transitions to a clean energy future in a way that protects jobs. However, the government believes that offshore workers will lead the world in the industries of the future such as carbon capture and storage and hydrogen but has made no mention of future onshore development in discussing UK fossil fuel transition[44].

6.1.14 DESNZ indicated that the Government would consult in 2024 on its manifesto position not to issue new oil and gas licences to explore new fields, which will have implications for any hydrocarbon development future in Kirklees. No consultation took place in 2024.

6.1.15 In June 2024, a Supreme Court Ruling [R (on the application of Finch on behalf of the Weald Action Group) (Appellant) v Surrey County Council and others (Respondents) Case ID: 2022/0064 ruled that the grant of planning permission for oil production in Surrey was unlawful for failing to assess the 'downstream' greenhouse gas (GHG) emissions that will inevitably arise from the combustion of fuel, following the refinement of crude oil. This ruling is already having implications for assessment of offshore oil and gas development proposals[45], whilst the Government reviews the ruling and makes any decisions on offshore oil and gas licences and consents. Any new development for oil and gas development in Kirklees will have to consider indirect effects of emissions in relation to GHG and climate change.

### Onshore Hydrocarbon Development

6.1.16 The North Sea Transition Authority (NSTA) regulate the licensing of exploration and development of the UK's offshore and onshore (England only) oil and gas resources, gas storage and unloading activities in accordance with the strategy.

6.1.17 It is not known if, or when, the new Labour Government may issue a future round of hydrocarbon licensing and given the government's commitment to clean green energy, it seems this is unlikely unless a significant energy security of supply issue arises.

### Hydrocarbon Geology in Kirklees

6.1.18 The nature of hydrocarbons and the method of extraction via underground drilling means that mineral planning authorities to do not need to identify specific sites to enable hydrocarbon development. As described above the NSTA issue PEDLs in parts of the UK where the geology is anticipated to hold hydrocarbons.

6.1.19 Onshore hydrocarbon development can be defined as conventional or unconventional. Conventional hydrocarbons are oil and gas where the reservoir is sandstone or limestone.

[44] Source DESNZ 2024 – Press Release: Certainty for oil and gas industry in light of landmark ruling.
[45] Court of Session ruled the offshore Rosebank and Jackdaw oilfield permissions granted in 2023 were unlawful as they had not taken into account carbon emissions (January 2025)

6.1.20 The term ‘unconventional hydrocarbons’ refers to oil and gas which comes from sources such as shale or coal seams which act as the reservoirs. Conventional onshore oil and gas development usually refers to resources which are located in relatively porous sandstone or limestone rock formations, and conventional extraction methods generally involve drilling a borehole down to the porous rock where the oil or gas has accumulated. The "source rocks" of these reservoirs are usually underlying shale. Oil and gas are normally pumped out of the ground using beam pumps.

6.1.21 Unconventional hydrocarbon development is a term that is used to refer to a number of types of oil and gas including tight gas, shale gas and coal bed methane. The term "unconventional" refers to the methods of extraction rather than the hydrocarbons themselves, which are the same as those extracted using conventional methods.

6.1.22 New techniques mean that formerly inaccessible hydrocarbon reserves can now be recovered and commercially exploited from undisturbed coal seams (coal bed methane), gas from mudrocks and shale gas from shale. These new techniques include fracking or hydraulic fracturing the strata or seams to release the gas. However, unconventional methods include fracking, which are mentioned above are currently not permitted in the UK, following seismic activity in Cuadrilla Preston New Road site near Blackpool Lancashire.

6.1.23 Hydrocarbon resources exist in Kirklees due to the Coal Measures found in the east of the area and these are considered to have potential for Coal Bed Methane development. This was following the British Geological Survey (BGS) undertaken with the then Department of Energy and Climate Change (DECC) of shale gas resource in place in central Britain from Wrexham and Blackpool in the west to Nottingham and Scarborough in the east, undertaken in 2013.

6.1.24 No PEDL licences have been issued by NSTA covering this Coal Bed Methane resource and so no exploration, appraisal or production hydrocarbon development has occurred (these are the three stages of hydrocarbon development).

### Hydrocarbon National Planning Policy and Planning Practice Guidance

6.1.25 The NPPF (2024) sets out the approach the government wishes planning authorities to apply to determine onshore oil and gas developments. In paragraphs 228-230 it sets out that authorities should clearly plan for the three stages of hydrocarbon development which are exploration, appraisal and production. Within the next year there may be further changes proposed to the NPPF by the Government on energy and hydrocarbon policy and so this should be reviewed regularly as the plan is prepared.

6.1.26 PPG[46] expands on this three-step approach and states that applications are able to cover more than one phase of extraction. The operator will need to provide all relevant information, including environmental information, to support the full extent of the application.

6.1.27 PPG[47] advises that MPAs are expected to include any petroleum licences areas in their policies maps in their Local Plans in addition to policies addressing the three-step approach to hydrocarbon development. In relation to specific sites, MPAs only need to include specific locations should the onshore oil and gas industry wish to promote them. In terms of safeguarding given the depth of hydrocarbon resources, directional drilling and the small sites required to explore, appraise and produce them, blanket safeguarding of the land surface above is required.

### Kirklees Oil and Gas Background Paper

6.1.28 In 2015, a background paper concerning oil and gas was published as part of the research associated with a new development plan for Kirklees. At the time of publication of the paper there were no PEDL licences covering the Kirklees area, however, it was unknown at the time, particularly as discussion surrounding the development of unconventional hydrocarbon resources was active, whether any subsequent round of onshore licensing would include the Kirklees Coal Bed Methane resource. As such, the paper recommended that the emerging development plan should contain policies on hydrocarbons to ensure any future applications for hydrocarbon extraction could be assessed against robust policies.

6.1.29 Unconventional hydrocarbon development is a term that is used to refer to a number of types of oil and gas including tight gas, shale gas and coal bed methane. The term "unconventional" refers to the methods of extraction rather than the hydrocarbons themselves, which are the same as those extracted using conventional methods.

### Local Plan Inspector's Report

6.1.30 The Inspectors' Report on the Examination of the Kirklees Local Plan indicated general satisfaction with the criteria-based policy on hydrocarbons. However, in relation to Policy LP41 a modification was requested as the Inspector considered that the processes that are covered by these policies can involve the transportation of large volumes of water and equipment, which result in high volumes of HGV traffic. A main modification was proposed - MM (SD1-MM101) to Policy LP 41 to ensure that the highway impacts of such development are taken into account when decisions are made on planning applications. It was considered that the wording of Policy LP42 referred to impacts in general, which would include the highways impacts and impacts on designated areas.

## Future Hydrocarbon Policy

6.1.31 The current Governmental drive to Net Zero by 2050, and the associated use of clean energy, and in particular renewable energy, means that the UKs reliance on fossil fuels is likely to decrease over the next twenty-five years. The UK's key source of UK recovered hydrocarbons is from the offshore reserves and resources in the North Sea.

6.1.32 Whilst there are unexplored resources of hydrocarbon onshore in the UK and within Kirklees, it is considered that current Government energy, environmental and employment policy is unlikely to see these explored by any new PEDL licensing round i.e. the 15th Onshore Licensing Round. This is because the Government needs to focus on where there is existing employment, infrastructure, skills and known reserves. It is sustainable to continue to use these skills and resources whilst the UK transitions from fossil fuels to cleaner energy rather than open up new areas where the amount of resource has not been explored or appraised.

6.1.33 Secondly, the methods that could be used to extract hydrocarbons from the unconventional coal bed methane seams in Kirklees such as fracking are currently not permitted because of seismic activity which occurred during previous development. In light of this there was significant public opposition to onshore sites. This public opposition was also concerned with greenhouse gas emissions from fossil fuels and fear of adverse impacts on the environment and health. Whilst these environmental and health fears, were not evidenced in all circumstances, it is unlikely that any Government would encourage future hydrocarbon development onshore unless there was a significant energy security issue.

[46] See PPG Paragraph: 094 Reference ID: 27-094-20140306
[47] See PPG Paragraph: 106 Reference ID: 27-106-20140306; Paragraph: 107 Reference ID: 27-107-20140306; and Paragraph: 108 Reference ID: 27-108-20140306

## 6.2 Recommendations

6.2.1 To retain the existing policy on hydrocarbon in case the current position on onshore fossil fuel development changes. It is suggested that text is added to the criteria stating that hydrocarbon proposals will be assessed carefully against the Local Plan's Climate Change Policy and that this climate change policy in relation to hydrocarbons will require the assessment of both the direct and indirect effects of greenhouse gas emissions on climate change. This update in supporting text and in any case hydrocarbon policy will follow the Finch Case. Whilst this related to Environmental Impact Assessment (EIA) and not all hydrocarbon development is EIA Development, it is likely that climate change policy will emerge to all hydrocarbon development to assess scope 1, scope 2 and scope 3 hydrocarbon emissions. The Government is currently reviewing the approach to EIA and Offshore Hydrocarbon Developments and new guidelines are anticipated in early 2025.

6.2.2 The supporting text in the Local Plan should be updated to mention the current ban on development relating to unconventional hydrocarbon development[48].

[48] See: https://www.gov.uk/government/news/government-ends-support-for-fracking

# 7 Approach to Restoration of Mineral Workings

## 7.1 Introduction

7.1.1 This final section of the paper reviews the existing background paper and local plan policy approach to mineral restoration with the Kirklees area and whether any changes are required in light of current national planning policy or guidance.

7.1.2 In 2015 Urban Vision produced a *Minerals Site Restoration Report (Policy Option Report (November 2015))* which was used as evidence to inform new policies on mineral site restoration in the Kirklees Local Plan. The 2015 Evidence Policy Option Report produced six policy options which were developed by Kirklees Council into Policy LP37(see below) in the adopted Kirklees Local Plan which addresses mineral site restoration and aftercare.

**Policy LP37 Site restoration and aftercare**

*Part 1*

*Mineral working will be permitted only where the council is satisfied that the site can be restored and managed to a high standard, the proposed restoration is sympathetic to the character and setting of the wider area and is capable of sustaining an appropriate after-use.*

*Restoration proposals for mineral workings should be designed to:*

*a) clearly indicate how the site will be restored and managed, before, during and after working;*

*b) ensure that restoration is completed at the earliest opportunity including the use of progressive restoration techniques where appropriate;*

*c) ensure that restoration and aftercare is appropriate with regard to the characteristics of the site's surroundings, including landscape character;*

*d) demonstrate that adequate financial provision has been made to fulfil the proposed restoration and aftercare requirements; and*

*e) include, where appropriate, provision for the extended management of a site beyond any aftercare period required by planning condition.*

*Part 2*

*Mineral working will be permitted only where the proposed site restoration delivers benefits such as enhancement of biodiversity interests, improved public access and the provision of climate change mitigation. Restoration proposals should therefore include:*

a) *measures to assist or achieve priority habitat or species targets and / or biodiversity Action Plan targets;*

b) *where appropriate, measures to protect and / or improve geodiversity and provide educational opportunities to visit such sites;*

c) *provision for increased flood storage capacity for sites which fall within high flood risk areas;*

7.1.3 The 2019 Local Plan Allocations and Designations document, adopted in 2019, also identifies a number of Mineral Areas of Search (MAS), Mineral Extraction Sites (MES) and Mineral Preferred Areas (MPA). These mineral site plan allocations are where planning permission will be expected to be granted where proposals accord with the development plan policies and relevant site assessment boxes. These Mineral Areas of Search, Mineral Extraction Sites and Preferred Areas were designated in accordance with paragraph 145 of the NPPF (2012 version) and continue to be in accordance with paragraph 226c of the NPPF (December 2024). This approach is also supported by current Planning Practice Guidance Paragraph: 008 Reference ID: 27-008-20140306.

7.1.4 The site boxes identify the potential quarry, but in relation to possible restoration and aftercare options, the plan offers little guidance other than generally requesting an appropriate restoration and aftercare programme to be included as part of any planning permission.

7.1.5 Initial discussion and review of the policy indicates a structured criteria-based approach to mineral site restoration and aftercare. However, the supporting text to this policy is brief and little additional information is provided to guide developers on how to meet the mineral site restoration criteria within the policy. In addition, the preferred mineral sites identified within the Plan have no site-specific restoration requirements for any future mineral applications to meet or address. The site-specific boxes often do identify specific assessment requirements as part of any planning application and this information is available to be used by Kirklees Council in assessing the impact and the relevance of the restoration scheme proposed.

7.1.6 The Local Plan Examination and Inspectors Report found that Policy LP37 was sound, but prior to adoption required a main modification MM (SD1-MM100) to ensure that landscape character is assessed as part of any proposals for restoration and aftercare. The Inspector also requested the two-part approach to Policy LP37 to ensure that mineral working will only be allowed where the site can be restored and aftercare managed to a high standard. The Inspector identified that the second part of the policy covers the criteria for site restoration including the benefits. The report indicates that there appears to have been discussion over whether the original character and biodiversity of sites could be restored. The Inspector believed there are good examples of sites where biodiversity has been improved, and landscape character not adversely affected after restoration.

7.1.7 Since the Plan was adopted there have been no significant changes to National Planning Policy Framework (NPPF) and online Planning Practice Guidance (PPG) with regards to mineral site restoration and aftercare, discussed below. However further updates to the NPPF may well occur during 2025 and so it will be important for Kirklees Council to update and reflect any new changes to NPPF minerals policy or guidance in its emerging new Local Plan.

7.1.8 The key legislative change is the requirement for Biodiversity Net Gain (BNG). This is a mandatory requirement for all development proposals to make sure that habitats for wildlife are left in a measurably better state that they were before development (Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021). Under this legislation developers must deliver a BNG of at least 10%. Whilst minerals development through restoration often delivers ecological enhancements, this new legislation for new mineral extension sites or new quarries is a mandatory measured requirement as part of restoration schemes (this does not apply to S73 proposals to extend the life of an existing operation). The new legislation also requires an aftercare period of at least 30 years.

## Policy Background

7.1.9 In relation to mineral restoration, the National Planning Policy Framework (NPPF) (2024) states in paragraph 223 criterion (h) that *"planning policies should ensure that worked land is reclaimed at the earliest opportunity, taking account of aviation safety, and that high quality restoration and aftercare of mineral sites takes place."*

7.1.10 The NPPF emphasises that mineral restoration should be secured at the earliest opportunity, but in relation to sustainable development and safeguarding mineral resources more generally, mineral site restoration timelines need to be balanced alongside the possibility that primary minerals may be able to be blended on or off site with other secondary or recycled materials which may extend the life of the reserve and resource.

7.1.11 NPPF paragraph 224 criterion “e” states that when considering planning applications for mineral extraction mineral authorities should *“provide for restoration and aftercare at the earliest opportunity, to be carried out to high environmental standards, through the application of appropriate conditions. Bonds or other financial guarantees to underpin planning conditions should only be sought in exceptional circumstances”.*

7.1.12 PPG provides advice on Minerals Restoration and Aftercare in paragraphs 037 Reference ID: 27-037-20140306 - Paragraph: 059 Reference ID: 27-059-20140306. The guidance covers a wide range of considerations which are summarised in the table below:

| Guidance Coverage | Guidance Summary |
|---|---|
| Who is responsible for mineral restoration and aftercare? | The operator (ultimately the landowner) |
| When should site restoration and aftercare be considered? | Within planning policy setting restoration should be achieved at the earliest opportunity and of high quality. |
| What are the key stages that must be considered when considering restoration and aftercare conditions? | - Soil and overburden stripping, storage and replacement;<br>- achieving landscape and landform objectives for the site;<br>- aftercare |
| When should proposals for land restoration and aftercare be submitted to the mineral planning authority? | Proposals for site restoration and aftercare should be submitted as part of the planning application. |
| How much detail on restoration and aftercare should be provided with the planning application? | - An overall restoration strategy, identifying the proposed after use of the site;<br>- information about soil resources and hydrology, and how the topsoil/subsoil/overburden/soil making materials are to be handled whilst extraction is taking place;<br>- where the land is agricultural land, an assessment of the agricultural land classification grade; and<br>- landscape strategy |
| How should the mineral planning authority ensure that applicants will deliver sound restoration and aftercare proposals? | Restoration and aftercare of a site through imposition of planning conditions and planning obligations. |

| Guidance Coverage | Guidance Summary |
|---|---|
| How must mineral planning authorities frame planning conditions for restoration and aftercare? | This will vary according to the mineral and site characteristics, but mineral planning authorities should seek to have 'progressive' or 'rolling' restoration and aftercare to minimise the area of land occupied at any one time by the mineral working. This is unless doing so would be likely to adversely affect the standard of reclamation achieved or would be impractical having regard to the type of operation and nature of the site. |
| How detailed should restoration and aftercare planning conditions be for short-term extraction and long-term extraction? | Detailed for short term<br><br>For longer term an outline with a time period when detailed information is required.<br><br>Where progressive reclamation is to be carried out, require submission of schemes for agreement from time to time as appropriate. |
| What are the possible forms of after use following mineral extraction? | Varied |
| Is planning permission required for any forms of after use? | Separate planning permission may be required for after-use comprising of development. |
| How should mineral planning authorities deal with any concerns about funding of site restoration or aftercare? | Through appropriately worded planning conditions. |
| When is a financial guarantee justified? | In exceptional circumstances |
| When should minerals planning authorities seek a financial guarantee? | Through agreeing a planning obligation or voluntary agreement at the time a planning permission is given. |
| What is the purpose of aftercare conditions? | To ensure a site is brought up to the required standards. |

| Guidance Coverage | Guidance Summary |
|---|---|
| What is the appropriate form of aftercare conditions? | At the time of granting planning permission, specifying detailed steps to be taken; or<br><br>through a planning condition which requires an aftercare scheme to be submitted by the applicant or other appropriate person for approval. |
| What are the limitations imposed on aftercare conditions? | - May only be imposed in conjunction with a restoration condition;<br><br>- they may only be imposed in relation to land which is to be used for agriculture, forestry or amenity (including biodiversity);<br><br>- they can require only planting, cultivating, fertilising, watering, draining or otherwise treating the land;<br><br>- they can only start following compliance with a restoration condition and the mineral planning authority cannot require any steps to be taken after the end of a 5-year aftercare period without the agreement of the mineral's operator. |
| Who must a mineral planning authority consult before imposing aftercare conditions? | Natural England if agricultural use and the Forestry Commission is forestry is proposed. |
| When should an aftercare scheme be submitted for approval by the mineral planning authority? | At least 6 months prior to the start of aftercare on all or part of the mineral site. |
| What information is required from a mineral operator to secure a successful aftercare scheme? | An outline strategy of commitments for the 5-year aftercare period.<br><br>At the start of aftercare, and in each year of the aftercare period, a review of the previous years' management and a detailed programme for the forthcoming year. |

| Guidance Coverage | Guidance Summary |
|---|---|
| What should be contained in an outline strategy? | These should include, as appropriate:<br>- timing and pattern of vegetation establishment;<br>- cultivation practices;<br>- secondary treatments;<br>- drainage;<br>- management of soil, fertility, weeds etc;<br>- irrigation and watering.<br>A map should accompany the outline strategy |
| What should be included in the detailed programme? | A detailed programme should:<br>- Elaborate on the outline strategy for work in the forthcoming year;<br>- confirm that steps specified in the outline strategy will be carried;<br>- include any modifications to original proposals. |

## Review of Approach

7.1.13 The existing Kirklees Policy LP37 reflects the general approach to restoration set out in the NPPF and PPG online, but there is no specific detail on how it is expected that this should be delivered or managed, or how applicants can design the restoration schemes to deliver specific Kirklees environmental or community objectives relating to the overall vision or objectives of the Local Plan or wider strategic policies. The supporting text to Policy LP37 and/or the site boxes for the MAS, MES and MPA sites could be updated or include more information.

7.1.14 The supporting text for Policy LP37 could provide more detail about what the developer is expected to deliver to meet the general criteria set out in the policy. Additional information on what is expected in restoration schemes and when discussions should take place and with whom will help to deliver more bespoke and relevant schemes. This will benefit the mineral operator and also Kirklees Council as the decision taker who has to balance the effects of minerals development against any restoration scheme. In addition, this could aid decision taking and reduce any opposition if restoration schemes, even if in outline or as part of a masterplan, are discussed early.

7.1.15 It is appreciated and understood that many of the quarries in Kirklees are worked at low rates of production and so restoration may take many years and operators and landowners may not want to agree to specific details relating to restoration years in advance. However, the planning system allows approved restoration schemes to be updated over time with specific aftercare and management details provided via conditions at an agreed time period in advance of the restoration phase.

7.1.16 Options for additional details which Kirklees Council could set out in the supporting text to Policy LP37 in relation to restoration and aftercare are suggested below:

- For each criterion more detailed guidance could be set out in the supporting text.
- The supporting text could be broadened to address many of the issues raised in the PPG guidance online and make them specific to Kirklees. For example, this could specify that mineral proposals should be accompanied by a restoration scheme that provides comprehensive details of the order and timing of phases of mineral working, restoration and of the final main after uses. It could set out that the restoration scheme should be expected to integrate and facilitate the delivery of any relevant mitigation measures, as identified in assessments undertaken to support the planning application.
- The text could also set out that any new mineral extraction proposal or extension should be supported by a clear set of restoration objectives with a concept restoration plan submitted as part of the development proposal, is expected to be restoration led, and that the working/extraction programme should be designed to deliver an appropriate phased

restoration scheme for the environmental and local characteristics of the site at the earliest opportunity.

- The text could set out that any restoration scheme in addition to delivering biodiversity gains as part of BNG should include one of the following aims or objectives in its restoration design:
  - Improved public access to the local environment or for recreation or open space.
  - Create habitats for wildlife and enhanced biodiversity for to meet local habitat targets, to create new or expand existing green corridors, nature improvement areas and other local habitat conservation objectives.
  - Restoration must be in keeping with the local landscape character and reinstate, restore and enhance local landscape character and features.
  - Restoration must reference the character of the historic environment and where relevant to statutory heritage features and sites it must conserve and enhance the setting.
  - Provide enhancements to address climate change such as flood management, carbon capture or air quality. (Kirklees Council declared a climate emergency in 2019 and so minerals developments will be expected to address climate change management and mitigation, including within their restoration schemes).
  - Provide opportunities for water management such as public water storage.
  - Opportunities to retain agriculture or forestry. Forestry in particular is an important restoration use for managing climate change it can mitigate effects via carbon capture, air quality management and reduce localised flooding.
- Supporting text could encourage pre-application discussions with the mineral planning authority and key stakeholders, including the local community, to resolve conflicts and identify opportunities. Early involvement in restoration schemes allows the local community to suggest positive changes and open discussion channels with the operator, helping to address concerns about the development's amenity and environmental impacts. Local inputs can improve restoration schemes, such as advising on new access routes, viewpoints, or reinstating lost landscape features.
- The supporting text of the Environmental Chapter Local Plan policies identifies specific strategies, assessments and targets that developers should address/refer to in landscape and nature conservation assessments. These environmental strategies and evidence could be introduced and referenced in the restoration section of the Kirklees Plan to guide mineral operators to information and strategies which can inform mineral site restoration plans and objectives. Additional strategies may be issued during the adopted plan period which developers should also reference.
- Additional detail could be provided on aftercare, setting out the aftercare period that is normally expected and when and how long-term aftercare could be secured. For example, it could set out that different after-uses may require different periods of aftercare. The statutory aftercare period is 5 years, or such other maximum period as may be prescribed. Some uses

such as nature conservation may benefit from an aftercare period of up to 20 years or more which could be secured by legal agreement, although as discussed below, 30-year long-term management of restored sites is required for those areas which deliver BNG.

- The text could set out that additional detail will be expected in aftercare management plans. For example, including the processes of cultivating, fertilising, planting, draining and otherwise treating the land.

## Biodiversity Net Gain

7.1.17 The Local Plan will need to address biodiversity net gain which now is a requirement of development. The restoration section should include supporting text about how biodiversity net gain will be expected to be delivered as part of mineral restoration schemes. Any policy review will need to be clear that 30-year long term management will now be required for new restoration schemes to align with BNG requirements and that this will usually commence post aftercare.

7.1.18 It could also consider whether any of the BNG will be required to be delivered in the early stages as part of, for example, landscape mitigation measures. There may be some opportunity to secure early BNG, if there are stand-off margins within the application site for other forms of environmental or amenity mitigation. The supporting text on restoration and BNG will need to set out how phased delivery of BNG will be timed and secured including a 30-year aftercare period The text will need to confirm whether the 30-year aftercare period commences at the end of the working of the whole site or whether the 30-year period will be phased with the clock starting after each aftercare period has been signed off by Kirklees Council. The latter seems the more likely approach.

## Financial Provision

7.1.19 One area for review may be criteria LP37d. which requires applicants to demonstrate that adequate financial provision has been made to fulfil the proposed restoration and aftercare requirements. It is unclear how Kirklees implements and secures the requirement of this criterion with operators and so the success of applying this criterion should be reviewed further. Other minerals planning authorities sometimes include a less specific financial criterion. They ask for the applicant to demonstrate that the scheme is feasible in economic terms. This alternative phrasing offers a broader approach and would still enable Kirklees Council to pursue restoration deliverability, if it is of concern for a particular scheme.

7.1.20 There is a restoration fund for operators of sand & gravel, crushed rock, industrial sands, lime and dimension stone who are members of the Minerals Product Association, namely the Restoration Guarantee Fund (MPA RGF) which in the unlikely event that an MPA member represented by the RGF is unable to meet its financial obligations for restoration, the other members will collectively provide the necessary financial support to make sure the work is completed. This fund is mentioned and supported by the government in PPG Paragraph: 048 Reference ID: 27-048-20140306 and the government's guidance is that financial guarantee should not be sought for restoration if operators are paying into the RGF fund or the fund run by the British Aggregates Association Restoration Guarantee Fund.

7.1.21 In addition, the PPG[49] advises on the use of planning conditions and obligations to secure restoration of quarries. An example of a condition which can be attached to a planning permission, where an MPA may want to avoid being left with a quarry unrestored is to impose a condition, requiring the restoration of a quarry which has been inactive for more than two years. *"In the event that operations are terminated or suspended for a period in excess of two years, the excavated area and other operational land shall be restored in accordance with a revised scheme of restoration that has been submitted to and approved by the LPA. Unless otherwise approved in writing the revised scheme of restoration shall be completed as approved within twelve months of the details being approved."*

## 7.2 Conclusions and Recommendations

7.2.1 The approach to mineral site restoration and aftercare is set out generally in Policy LP37. However, there are no site-specific restoration requirements identified for the existing or preferred mineral areas in the Plan.

7.2.2 The supporting text for this policy could set out in more detail what information is expected to be included in restoration schemes for different after-uses and site characteristics.

7.2.3 The text could identify and reference local strategies and targets which restoration schemes should aim to deliver. The text should also make clear that new strategies and local guidance may come forward during the adopted Local Plan period which developers should refer to. These benefits or enhancements could be designed into the scheme's restoration objectives.

7.2.4 The text should encourage restoration led design and early engagement with the mineral planning authority, strategy stakeholders and local community.

7.2.5 The text should set out the different types of aftercare requirements for different after-uses. It should also make clear when longer term management is likely to be required, for how long and how it will be secured.

[49] See: PPG - 047 Reference ID: 27-047-20140306

# 8 Key Conclusions and Recommendations

This section brings together all the main conclusions and recommendations of this report.

## 8.1 Mineral Supply and Demand

### Conclusions

- Minerals of local and national importance in Kirklees are as follows:
    - Sandstone (for non-aggregate uses)
    - Sandstone (for primary aggregate uses)
    - Sand and gravel for aggregate uses
    - Clay for use in pipe manufacture
    - Coal (potential national importance – not needed currently)
    - Hydrocarbons (potential national importance – not needed currently)
- Kirklees has a substantial landbank for sandstone aggregate, with reserves projected to last for 49 years at current extraction rates, ensuring a steady supply for regional construction needs.
- Sand and gravel resources in Kirklees have been exhausted since 2023, making the area heavily reliant on imports from other regions, particularly Doncaster and Nottinghamshire.
- Demand for clay is expected to increase significantly due to local manufacturers such as Wavin Ltd diversifying into new markets. Current annual demand is approximately 32,400 tonnes but could rise to between 100,000 and 200,000 tonnes per annum. Recent planning consents in Kirklees[50] will help ensure needs are met.
- The use of recycled and secondary aggregates from construction and demolition waste is increasing. The sufficiency of infrastructure capacity for processing this material is set out in the Waste Needs Assessment.

### Recommendations

***Sandstone Aggregate***

- Safeguard existing sandstone quarries and resources to protect against sterilisation by competing developments.
- In light of plentiful supplies, do not allocate specific sites, preferred areas of areas of search for the extraction of such material but instead rely on material which arises as a secondary product from extraction of sandstone for building stone. Reject any nominations for allocations of sites solely for the purpose of the production of sandstone aggregate.
- Utilise annual monitoring of sandstone aggregate production and reserves, via the Local Aggregates Assessment, to allow ongoing assessment of how

[50] Bromley Farm and Peace Wood

supply aligns with demand. Ensure monitoring distinguishes between reserves of building stone and reserves of sandstone aggregate.

***Sand and Gravel***

- Identify and allocate areas of search for sand and gravel extraction to reduce reliance on imports.
- Allocate site(s) if viable reserves are subsequently identified during the consultation on the draft Local Plan.
- Specifically, consult on whether the Bradley Island allocation in the current Local Plan should be included in the new Local Plan.
- Include policies which allow the development of windfall sites and prior extraction to encourage flexible responses to unexpected opportunities.
- Safeguard and promote infrastructure supporting sand and gravel importation to maintain resilience of imported supplies.

**Clay and Shale**

- Approve strategic extensions to existing quarries to maintain supply for local manufacturing.
- Identify additional extraction sites in suitable locations to ensure a long-term supply of clay.
- Collaborate with industry stakeholders to better understand future demand and ensure appropriate site allocations.
- Via annual surveys, monitor supplies and reserves and report findings in the Annual Monitoring Report.

**Recycled and Secondary Aggregates**

- Include policy to support the development of advanced processing facilities to increase the production of high-quality recycled aggregates.
- Safeguard existing recycling infrastructure and integrate recycling policies into employment land strategies.
- Include policy which encourages the use of recycled aggregates in local construction projects to promote sustainability.

## 8.2 Site Selection

### Conclusions

- A constraints-based assessment methodology ensures that site selection is systematic, transparent, and environmentally sound.
- Coordination with stakeholders, including the local community and industry representatives, is essential for sustainable site selection.
- Identifying preferred areas and areas of search, as well as specific sites, provides flexibility in meeting future mineral supply needs.

### Recommendations

- Develop a Transparent Site Selection Methodology:
    - Use GIS-based analysis and environmental criteria as a basis to screen suitable sites.
    - Prepare draft methodology based on that used to select sites in the 2019 Local Plan updated in line with observations in this report.
    - Incorporate consultation with stakeholders, including the local community and industry representatives on a draft assessment methodology to help ensure legitimacy and acceptance to the site selection process.
- Prioritise Sites Based on Strategic Need:
    - Focus on areas with known mineral resources and favourable environmental and physical conditions.
    - Consider deliverability in terms of economic viability in particular in relation to physical constraints.
- Maintain Flexibility in the Site Selection Process:
    - Allow adjustments to the site selection process based on updated data, changing conditions and information arising from consultation.
    - As well as specific sites and preferred areas, identify areas of search that offer potential for future extraction.

## 8.3 Mineral Safeguarding

### Conclusions

- Mineral resources and associated infrastructure in Kirklees are at risk of sterilisation due to competing land uses.
- Safeguarding resources and associated infrastructure is essential for maintaining supply both in the short and long-term.

### Recommendations

- Identify and Safeguard Critical Resources:
    - Use the Local Plan to designate safeguarding areas for mineral resources and infrastructure.
    - The need for, and ease of management associated with blanket safeguarding of all mineral resource types in Kirklees should be checked and balanced during the preparation of the new Local Plan.
- Develop Clear Policies to Prevent Sterilisation:
    - Ensure policies are positively worded and allow for minerals supply development to co-exist with other land uses.
    - Provide guidance on how proposals should take account of mineral resources and infrastructure.
- Regularly Review and Update Safeguarded Areas:
    - Reflect new developments and changes in resource availability and constraints to keep safeguarding policies relevant.

## 8.4 Hydrocarbons

### Conclusions

- Hydrocarbon resources exist within Kirklees.
- There are no active hydrocarbon developments in Kirklees.
- National policies require positive planning for potential hydrocarbon development, subject to stringent environmental safeguards.

### Recommendations

- Plan Positively for Potential Hydrocarbon Exploration:
    - Ensure compliance with national policies while balancing environmental considerations.
- Apply Rigorous Environmental Assessments:
    - Ensure policy requires applications to demonstrate in detail how potential impacts on communities and the natural environment will be mitigated.
- Prepare policies to address unexpected developments in hydrocarbon exploration and extraction.

## 8.4 Restoration

### Conclusions

- Restoration of mineral sites provides opportunities for biodiversity enhancement, climate resilience, and community benefits.

- Recent national policies mandate Biodiversity Net Gain (BNG) and alignment with Local Nature Recovery Strategies.

### Recommendations

- Incorporate Biodiversity Net Gain in Restoration Plans:
    - Ensure all restoration projects deliver measurable biodiversity enhancements.
- Allow Flexibility in Restoration:
    - Allow restoration that offers ecological, recreational, and/or agricultural benefits.
    - Consult local communities to align restoration projects with their expectations.
- Monitor and Enforce Restoration Commitments:
    - Establish a robust monitoring framework to ensure compliance and long-term success.

# 9 Appendices

## Quarries

| Adopted LP ID | Address | Mineral extracted | Gross area (hectares) | Status in the Local Plan | Current Status | Call for Sites Nomination? |
|---|---|---|---|---|---|---|
| | **Sand and Gravel** | | | | | |
| MAS1 | Bradley Island, Bradley, Huddersfield aka Kirklees Lock, Clifton | Sand and gravel | 9.96 | Mineral area of search | Not developed | No |
| MES6 | Forge Lane, Ravensthorpe (10.5ha), | Sand and Gravel | 10.49 | Minerals Extraction Site | Operations complete. Site being restored. | No |
| | **Sandstone aggregate** | | | | | |
| MAS2 | Appleton Quarry, Park Head Lane, Haddingley | *Sandstone Block* Sandstone aggregate | 0.88 | Mineral area of search | Not developed. Promoted for inclusion in new Local Plan | Yes |
| MES1 | Wellfield Quarry, Crosland Moor | *Sandstone Block* Sandstone aggregate | 10.35 | Minerals Extraction Site | Closed – being restored[51] | Yes. For minerals infrastructure (not for quarrying) – slightly different area. |

[51] Condition 4 on planning permission 92/05699 requires all extraction to cease by 31.12.17 and restoration works to be completed by 31.10.27. Amended by Planning permission 2002/92247.

| Adopted LP ID | Address | Mineral extracted | Gross area (hectares) | Status in the Local Plan | Current Status | Call for Sites Nomination? |
|---|---|---|---|---|---|---|
| MES2 | Waterholes Quarry, Crosland Moor, Huddersfield, | *Sandstone Block* Sandstone aggregate | 3.91 | Minerals Extraction Site | Not active (mostly restored) | Yes but for housing not minerals |
| MES3 | Moorfield Quarry, Crosland Moor, Huddersfield, | *Sandstone Block* Sandstone aggregate | 3.53 | Minerals Extraction Site | Active in operation | Yes |
| MES4 | Land at Crosland Moor, Huddersfield (17.5ha), | *Sandstone Block* Sandstone aggregate | 40.48 | Minerals Extraction Site | Active in operation. Permission end date: 31.12.27[52] | Yes |
| MES5 | Land off Thewlis Lane Crosland Moor, | *Sandstone Block* Sandstone aggregate | 10.21 | Minerals Extraction Site | Active in operation. Permission end date: 31.12.27[53] | Yes |
| MES7 | Moselden Heights Quarry and extension area off Saddleworth Road Scammonden, | *Sandstone Block* Sandstone aggregate | 13.38 | Minerals Extraction Site | Active in operation. Permission end date: 30.04.42 | Yes. Existing and new areas north and south of existing site. |
| MES8 | Rockingstones Quarry – off Quebec Road Wholestone Moor, | *Sandstone Block* Sandstone aggregate | 12.94 | Minerals Extraction Site | Not active[54]. Permission end date: 05.11.07 | No |
| MES9 | Land at Dearne Grange, Park Head Lane, Haddingley, Shepley. | *Sandstone Block* Sandstone aggregate *Clay/Shale* | 24.43 | Minerals Extraction Site | Not developed. | No |
| MES10 | Appleton Quarry, Shepley, | *Sandstone Block* Sandstone aggregate *Clay/Shale* | 14.01 | Minerals Extraction Site | Active in operation. Permission end date: 21.02.2042 | Yes. Retain current allocation and |

[52] Condition 1 on planning permission 2015/90640 (relating to Airfield Quarry) requires all extraction and restoration works to be completed by 31.12.25; Condition 1 on planning permission 2002/92247 (Waterholes Quarry) requires extraction operations on this site to be completed by 31.12.27
[53] Condition 1 on planning permission 2019/90949 requires extraction and restoration operations to be completed by 31.12.27
[54] Condition 3 on permission 99/91247 required extraction to be completed by 05.11.06 and restoration to be complete by 05.11.07

| Adopted LP ID | Address | Mineral extracted | Gross area (hectares) | Status in the Local Plan | Current Status | Call for Sites Nomination? |
|---|---|---|---|---|---|---|
| | | | | | | identify area for housing |
| MES14 | Carr Hill Quarry, Shepley, | *Sandstone Block* Sandstone aggregate *Clay/Shale* | 1.3 | Minerals Extraction Site | Closed – being restored[55] | Yes. Also for waste use. |
| MES15 | Land adjacent to Appleton Quarry Holmfirth Road Shepley, | *Sandstone Block* Sandstone aggregate *Clay/Shale* | 2.12 | Minerals Extraction Site | Active in operation. Permission end date: 23.01.32[56] | Yes |
| MES17 | Land to the south of, Intake Lane, Crosland Moor | *Sandstone Block* Sandstone aggregate | 23.51 | Minerals Extraction Site | Active in operation. Permission end date: 31.12.37[57] | Yes |
| MES18 | Whitegate Quarry, Cartworth Moor (Windy Ridge) | *Sandstone Block* Sandstone aggregate | 1.48 | Minerals Extraction Site | Active in operation. Permission end date: 31.03.28[58] | Yes |
| MES19 | Hill House Edge Quarry, Cartworth Moor, | Sandstone Block Sandstone aggregate | 3.44 | Minerals Extraction Site | Active in operation. Permission end date: 31.12.28[59] | Yes |
| MES22 | Sovereign Quarry, Shepley, | *Sandstone Block* Sandstone aggregate | 7.96 | Minerals Extraction Site | Active in operation. Permission end date: 21.02.42[60] | Yes |

[55] Permission 2022/90168 requires restoration to be complete by 31.08.27
[56] Permission 2022/94058 requires restoration to be complete by 23.01.32
[57] Permission 2021/93331 requires restoration to be complete by 31.12.37
[58] Permission 2020/92410 requires restoration to be complete by 31.03.28
[59] Extraction is required to end by 31.12.28 and restoration to be complete by 31.12.30
[60] Restoration required by September 2042.

| Adopted LP ID | Address | Mineral extracted | Gross area (hectares) | Status in the Local Plan | Current Status | Call for Sites Nomination? |
|---|---|---|---|---|---|---|
| MES24 | Temple Quarry – off Liley Lane, Grange Moor, | *Sandstone Block* Sandstone aggregate | 15.77 | Minerals Extraction Site | Active in operation Permission end date: 31.12.2032 [61] | Yes |
| MPA1 | Land at Moor End Farm, Nopper Lane, Crosland Moor | *Sandstone Block* Sandstone aggregate | 6 | Minerals preferred areas | Not developed | Yes |
| MPA2 | Land south of Intake Lane, Crosland Moor | *Sandstone Block* Sandstone aggregate | 5.73 | Minerals preferred areas | Not developed | Yes |
| MPA3 | Hillhouse Edge Quarry, Cartworth Moor Road, Cartworth Moor | *Sandstone Block* Sandstone aggregate | 7.39 | Minerals preferred areas | Active in operation Permission end date: 31/12/2028[62] | Yes |
| NEW | Saddleworth Road Scammonden | *Sandstone Block* Sandstone aggregate | TBC | TBC | Not developed | Yes |
| NEW | Land South of Whitehead Lane, South Crosland | *Sandstone Block* Sandstone aggregate | TBC | TBC | Not developed | Yes |
| | **Sandstone block** | | | | | |
| MES14 | Carr Hill Quarry, Shepley (1.3ha), | Sandstone Block (Shepley Blue) | 1.81 | Minerals Extraction Site | Closed – being restored | Yes. Also for waste use. |
| MAS2 | Appleton Quarry, Park Head Lane, Haddingley | Sandstone Block (Shepley Blue) *Sandstone aggregate* | 0.88 | Mineral area of search | Not developed. Promoted for inclusion in new Local Plan | Yes |

[61] Permission was very recently granted to extend the timescale of the operations
[62] 2028 permission end date only applies to the area of MPA3 that was permitted in application 2019/92075.

| Adopted LP ID | Address | Mineral extracted | Gross area (hectares) | Status in the Local Plan | Current Status | Call for Sites Nomination? |
|---|---|---|---|---|---|---|
| MES1 | Wellfield Quarry, Crosland Moor | Sandstone Block (Huddersfield White Rock) *Sandstone aggregate* | 10.35 | Minerals Extraction Site | Closed – being restored | Yes. For minerals infrastructure (not for quarrying) |
| MES2 | Waterholes Quarry, Crosland Moor, Huddersfield, | Sandstone Block (Huddersfield White Rock) *Sandstone aggregate* | 3.91 | Minerals Extraction Site | No (mostly restored) | Yes but not for minerals (housing) |
| MES3 | Moorfield Quarry, Crosland Moor, Huddersfield, | Sandstone Block (Huddersfield White Rock) *Sandstone aggregate* | 3.53 | Minerals Extraction Site | Active in operation | Yes |
| MES4 | Land at Crosland Moor, Huddersfield (17.5ha), | Sandstone Block (Huddersfield White Rock) *Sandstone aggregate* | 40.48 | Minerals Extraction Site | Active in operation. Permission end date: 31.12.27[63] | Yes |
| MES5 | Land off Thewlis Lane Crosland Moor, | Sandstone Block (Huddersfield White Rock) *Sandstone aggregate* | 10.21 | Minerals Extraction Site | Active in operation. Permission end date: 31.12.27[64] | Yes |
| MES7 | Moselden Heights Quarry and extension area off Saddleworth Road Scammonden | Sandstone Block (Moselden) *Sandstone aggregate* | 13.38 | Minerals Extraction Site | Active in operation Permission end date: 30.04.2042 | Yes. Yes. Existing and new areas north and south of existing site. |
| MES8 | Rockingstones Quarry – off Quebec Road Wholestone Moor, | Sandstone Block *Sandstone aggregate* | 12.94 | Minerals Extraction Site | Not active[65]. Permission end date: 05.11.07 | No |

[63] Condition 1 on planning permission 2015/90640 (relating to Airfield Quarry) requires all extraction and restoration works to be completed by 31.12.25; Condition 1 on planning permission 2002/92247 (Waterholes Quarry) requires extraction operations on this site to be completed by 31.12.27

[64] Condition 1 on planning permission 2019/90949 requires extraction and restoration operations to be completed by 31.12.27

[65] Condition 3 on permission 99/91247 required extraction to be completed by 05.11.06 and restoration to be complete by 05.11.07

| Adopted LP ID | Address | Mineral extracted | Gross area (hectares) | Status in the Local Plan | Current Status | Call for Sites Nomination? |
|---|---|---|---|---|---|---|
| MES9 | Land at Dearne Grange, Park Head Lane, Haddingley, Shepley. | Sandstone Block (Shepley Blue) *Sandstone aggregate Clay/Shale* | 24.43 | Minerals Extraction Site | Not developed | No |
| MES10 | Appleton Quarry, Shepley, | Sandstone Block (Shepley Blue) *Sandstone aggregate Clay/Shale* | 14.01 | Minerals Extraction Site | Active in operation Permission end date: 21.02.2042 | Yes |
| MES14 | Carr Hill Quarry, Shepley, | Sandstone Block (Shepley Blue) *Sandstone aggregate Clay/Shale* | 1.3 | Minerals Extraction Site | Closed – being restored[66] | Yes. Also, for waste use. |
| MES15 | Land adjacent to Appleton Quarry Holmfirth Road Shepley, | Sandstone Block (Shepley Blue) *Sandstone aggregate Clay/Shale* | 2.12 | Minerals Extraction Site | Active in operation. Permission end date: 23.01.32[67] | Yes |
| MES17 | Land to the south of Intake Lane, Crosland Moor | Sandstone Block (Huddersfield White Rock) *Sandstone aggregate* | 23.51 | Minerals Extraction Site | Active in operation. Permission end date: 31.12.37[68] | Yes |
| MES18 | Whitegate Quarry, Cartworth Moor (Windy Ridge) | Sandstone Block (Huddersfield White Rock) *Sandstone aggregate* | 1.48 | Minerals Extraction Site | Active in operation. | Yes |
| MES19 | Hill House Edge Quarry, Cartworth Moor, | Sandstone Block (Hill House Edge Yorkstone) *Sandstone aggregate* | 3.44 | Minerals Extraction Site | Active in operation. Permission end date: 31.12.28[69] | Yes |

[66] Permission 2022/90168 requires restoration to be complete by 31.08.27
[67] Permission 2022/94058 requires restoration to be complete by 23.01.32
[68] Permission 2021/93331 requires restoration to be complete by 31.12.37
[69] Extraction is required to end by 31.12.28 and restoration to be complete by 31.12.30

| Adopted LP ID | Address | Mineral extracted | Gross area (hectares) | Status in the Local Plan | Current Status | Call for Sites Nomination? |
|---|---|---|---|---|---|---|
| MES21 | Woodhouse Quarry - Off Woodhouse Holmfirth, | Sandstone Block | 1.72 | Minerals Extraction Site | Extraction complete - being restored | No |
| MES22 | Sovereign Quarry, Shepley, | Sandstone Block (Shepley Blue) *Sandstone aggregate* | 7.96 | Minerals Extraction Site | Active in operation Permission end date: 21.02.2042 | Yes |
| MES24 | Temple Quarry – off Liley Lane, Grange Moor, | Sandstone Block *Sandstone aggregate* | 15.77 | Minerals Extraction Site | Active in operation Permission end date[70]: 31.12.2032 | Yes |
| MPA1 | Land at Moor End Farm, Nopper Lane, Crosland Moor | Sandstone Block (Huddersfield White Rock) *Sandstone aggregate* | 6 | Minerals preferred areas | Not developed | Yes |
| MPA2 | Land south of Intake Lane, Crosland Moor | Sandstone Block (Huddersfield White Rock) *Sandstone aggregate* | 5.73 | Minerals preferred areas | Not developed | Yes |
| MPA3 | Hillhouse Edge Quarry, Cartworth Moor Road, Cartworth Moor | Sandstone Block (Hill House Edge Yorkstone) *Sandstone aggregate* | 7.39 | Minerals preferred areas | Active in operation Permission end date: 31/12/2028 | Yes |
| NEW | Saddleworth Road Scammonden | Sandstone Block (Moselden) *Sandstone aggregate* | TBC | TBC | Not developed | Yes |
| NEW | Land South of Whitehead Lane, South Crosland | Sandstone Block (Huddersfield White Rock) *Sandstone aggregate* | TBC | TBC | Not developed | Yes |
| | **Clay and Shale** | | | | | |

[70] Permission was very recently granted to extend the timescale of the operations

| Adopted LP ID | Address | Mineral extracted | Gross area (hectares) | Status in the Local Plan | Current Status | Call for Sites Nomination? |
|---|---|---|---|---|---|---|
| MAS3 | Bromley Farm Quarry, Upper Cumberworth | Clay and Shale | 12.67 | Mineral area of search | Not developed. | Yes |
| MAS4 | Land north of, Cumberworth Lane, Lower Cumberworth | Clay and Shale | 14.32 | Mineral area of search | Not developed | Yes |
| MAS5 | Land north of, Peace Wood Quarry, Green House Hill, Shelley | Clay and Shale | 39.85 | Mineral area of search | Not developed | Yes |
| MAS6 | Land to the north of Huddersfield Road, Shelley Woodhouse | Clay and Shale | 4.03 | Mineral area of search | Not developed. Planning permission granted 2023/91949. | No |
| MAS7 | Land west of, Peace Wood Quarry, Green House Hill, Shelley | Clay and Shale | 6.61 | Mineral area of search | Not developed | Yes |
| MES9 | Land at Dearne Grange, Park Head Lane, Haddingley, Shepley. | *Sandstone Block Sandstone aggregate* Clay/Shale | 24.43 | Minerals Extraction Site | Not developed | No |
| MES11 | Bromley Farm Quarry, Upper Cumberworth | Clay and Shale | 28.69 | Minerals Extraction Site | Not active (mostly restored) | No |
| MES12 | Bromley Farm Quarry, Upper Cumberworth | Clay and Shale | 17.25 | Minerals Extraction Site | Not active<br>Planning permission granted March 2025 subject to S106. 2023/91280. | Yes |
| MES13 | Hen Perch Quarry, Scissett, Denby Dale | Clay and Shale | 13.26 | Minerals Extraction Site | Active in operation.<br>Permission end date: 31.12.31; site to be restored by 31.10.33. | Yes |
| MES15 | Land adjacent to Appleton Quarry Holmfirth Road Shepley, | *Sandstone Block Sandstone aggregate* Clay/Shale | 2.12 | Minerals Extraction Site | Active in operation. | Yes |

| Adopted LP ID | Address | Mineral extracted | Gross area (hectares) | Status in the Local Plan | Current Status | Call for Sites Nomination? |
|---|---|---|---|---|---|---|
| | | | | | Permission end date: 23.01.32[71] | |
| MES16 | Hen Perch Quarry, Thorpe Lane, Denby Dale | Clay and Shale | 9 | Minerals Extraction Site | Active in operation. Permission end date: 31.12.31; site to be restored by 31.10.33. | Yes |
| MES20 | Ox Lee, Hepworth (28ha), | Clay and Shale | 27.93 | Minerals Extraction Site | Open but inactive - operations currently on hold. Application[72] to extend site pending application which would extend the lifespan of the quarry. | Yes |
| MES23 | Peace Wood Quarry, Shelley | Clay and Shale | 8.72 | Minerals Extraction Site | Active in operation Permission[73] end date: 31.10.32; site to be restored by 31.10.34. | No |

[71] Permission 2022/94058 requires restoration to be complete by 23.01.32
[72] Reference: 2024/91949
[73] Permission 2017/93602

## Other Minerals Supply Infrastructure

| Adopted LP ID | Address | Call for Sites nomination? |
|---|---|---|
| MIS1 | Concrete batching plant off Barr Street, Huddersfield | Yes (for commercial use) |
| MIS2 | Former coal/aggregates depot and associated rail spur off Bretton St, Dewsbury | Yes |
| MIS3 | Concrete batching plant off Lees Hall Road, Thornhill Lees[74] | No |
| MIS4 | Rolled products plant at Newlay Concrete, Calder Road, Ravensthorpe | Yes |
| MIS5 | Cement depot and associated rail spur off Bretton Street, Savile Town | Yes |
| MIS6 | Coal wharf for former Thornhill Power Station adjacent Calder & Hebble Navigation | No |
| MIS7 | Concrete products and plant at Longley C.R. & Co Ltd, Ravensthorpe Road, Ravensthorpe | Yes |

[74] Planning application submitted in 2024 for Use Class B2 with associated office space and the enclosure of existing concrete yard to form new workshop (Use Class B2). The application states the proposal relates to construction and maintenance of the TRU.

## Appendix 2: Key Messages in the West Yorkshire Local Aggregates Assessment (2023 data)

The Key Messages and relevant considerations when assessing proposals and allocations for development relating to the supply of aggregate included in the West Yorkshire LAA are set out below:

**Additional aggregate supplies will be required for housing and infrastructure** – While housing delivery has significantly improved in West Yorkshire in recent years, a significant gap between the number of houses being built and the objectively assessed need for new housing remains. It remains to be seen whether the new government's aims for increases in housebuilding will be realised in practice but changes to policy may well have an impact in the medium term. A range of infrastructure projects are in the pipeline including Mass Transit for West Yorkshire, Northern Powerhouse Rail and upgrades of the Trans-Pennine rail route and associated Rail Interchange upgrades. Infrastructure needed to achieve net zero (e.g. wind turbines) will place further demands on aggregate minerals. Additional aggregate supplies will be required to ensure the housing delivery gap is filled and the construction aggregate demands of the infrastructure projects are met.

**The aggregate resource in West Yorkshire is limited** - The geology of West Yorkshire means that indigenous supplies of high-quality land won aggregate, for use in concrete and road building, are difficult, if not impossible to obtain.

**West Yorkshire currently makes a small contribution to supply of construction aggregates** - West Yorkshire is a major aggregate consumer but makes a low contribution to the overall supply of construction aggregates within the Yorkshire and Humber Region, particularly in relation to sand and gravel and high specification crushed rock.

**The resilience of the sand and gravel landbank is questionable** - Reserves and production of sand and gravel within West Yorkshire are still at a very low level. The apparently healthy landbank masks the low level of sales and reserves and the deliverability of a recent permission remains uncertain which means the landbank may not be very resilient and should not be taken as an indication that there is no need for additional reserves. The industry has noted that there is an ongoing national depletion in permitted reserves and this is of significant concern.

**Crushed rock landbank is healthy but includes mainly lower specification material** - Crushed rock reserves remain relatively high within West Yorkshire; however, while limestone geology exits, a substantial proportion of the currently permitted reserves are Carboniferous Sandstone which is unsuitable for higher specification uses, such as for the manufacture of concrete or as roadstone.

**West Yorkshire is very reliant on neighbouring Mineral Planning Authorities** - To meet most of its aggregate needs, particularly for uses which demand higher specifications, West Yorkshire is reliant on aggregate imports, primarily from quarries in the Yorkshire Dales National Park, Derbyshire and Durham as well as marine won

aggregate imported from wharves on the Humber estuary. Areas providing land won supplies currently have healthy landbanks though this may change in the long term.

**For road surfacing West Yorkshire remains strongly reliant on aggregate imported from the Yorkshire Dales National Park** - To meet its needs for aggregate suitable for use as skid resistant road surfacing, West Yorkshire remains strongly reliant upon supplies of high specification (high Polished Stone Value) sandstone aggregates from quarries in the Yorkshire Dales National Park.

**Sustainable opportunities to increase aggregate supply in West Yorkshire** - Given West Yorkshire's reliance on adjoining authorities for higher specification aggregates, any sustainable opportunities to increase the supply of the generally lower specification aggregates produced within West Yorkshire should be considered upon their merits, particularly where such proposals would facilitate the indigenous production of building materials such as artificial stone products.

**Increase Recycled Aggregates** – Although the production of recycled aggregates is linked to economic growth, providing new and enhanced facilities for the production of such aggregates will help West Yorkshire's contribution to aggregate production and partly compensate for its reliance on primary aggregates quarried from neighbouring authorities. The safeguarding of existing facilities from redevelopment is also important.

**Building Sand from Sandstone Quarries** - Production of sand from crushed rock at sandstone quarries in West Yorkshire, including building stone quarries, is a valuable additional/ alternate source of sand supply, particularly building sand.

**Safeguarding Existing, and Developing New, Rail Sidings and Wharves** - Existing rail and wharf infrastructure should be safeguarded. In light of the single wharf importing aggregate by barge ceasing operation in 2022, potential new locations for aggregate wharves and rail depots for the importation of marine aggregate should be investigated with greater urgency and their suitability for importation of crushed rock from the Yorkshire Dales should also be considered. Current industry interest in utilising waterways to transport minerals within West Yorkshire should continue to be supported. Removing HGVs from the road network to these transport modes would help improve Air Quality.

**Overarching message:** Planning for continuity in the supply of the aggregates consumed in West Yorkshire is far more dependent upon effectively cooperating with neighbouring authorities and safeguarding minerals sustainable transportation infrastructure (i.e. rail sidings and wharves) than managing aggregate supplies within West Yorkshire itself. While West Yorkshire may be reliant on other areas for aggregates, as a metropolitan area, it accommodates some of the other development needs which benefit other areas including housing.

## Appendix 3: Minerals Site Location Maps

## See separate document

## Appendix 4: Principal Destination Sites Receiving C, D & E waste from Kirklees (>1,000 tonnes) in 2023

| Management Method | WPA | Site Category | Site Name | Operator | Tonnes |
|---|---|---|---|---|---|
| **Permanent Deposit** | Kirklees | Landfill | Bradley Park Landfill | Bradley Park Waste Management Ltd | 16,589 |
| | | | Wellfield Quarry Landfill | Johnsons Wellfield Ltd | 25,980 |
| | Calderdale | | Clockface Quarry Inert Site | P. Casey Enviro (Clockface) Ltd | 53,925 |
| | Bolton | | Harwood Quarry | Booth Ventures Ltd | 1,152 |
| | Wakefield | | Welbeck Landfill Site | Welbeck Waste Management Ltd | 15,144 |
| | Wakefield | On/In Land | Warmfield Fishing Grounds Development | J P Land Restoration Services Ltd | 3,582 |
| | East Riding of Yorkshire | | Park Lodge Shooting School | Greenscape (Yorkshire) Ltd | 1,854 |
| **Recycling/Treatment** inc. waste managed through transfer/ storage | Leeds | MRS | 245, Whitehall Road | BW Skip Hire Ltd | 2,866 |
| | Kirklees | Transfer | Alder Street Depot | Kirklees Council | 4,026 |
| | | | Clayfield Works | Bower Skip Hire Ltd | 3,977 |
| | | | Colne Valley Skip Hire | Colne Valley Skip Hire | 2,330 |
| | | | Headlands Road Depot | Kirklees Council | 8,537 |
| | | | Unit 10 West End Mills | J T Shingleton & Son | 1,585 |
| | | | The Reins | Kirklees Council | 8,516 |
| | | | The Stone Yard | Tiger Skip Hire Ltd | 5,304 |
| | | | Thornhill Integrated Waste Management Facility | Suez Recycling and Recovery Kirklees Ltd | 1,928 |
| | Calderdale | | Calder Valley Skip Hire Ltd | Calder Valley Skip Hire Ltd | 1,288 |
| | Sheffield | | Carlisle Street East | MHH Contracting Ltd | 2,862 |
| | Barnsley | | Jakto Transport Ltd | Jakto Transport Ltd | 1,185 |
| | Kirklees | Treatment | Carr Hill Quarry | P M W Quarries Ltd | 31,030 |
| | | | Johnsons Wellfield Treatment Plant | Johnsons Wellfield Ltd | 2,777 |
| | | | Myers Skip Hire Ltd | Myers Skip Hire Ltd | 27,977 |

| Management Method | WPA | Site Category | Site Name | Operator | Tonnes |
|---|---|---|---|---|---|
| | | | Windy Ridge Quarry | Windy Ridge Recycling Ltd | 3,121 |
| | Leeds | | Ashfield Way Treatment & Transfer Station | BW Skip Hire Ltd | 2,834 |
| | Solihull | | Cornets End Recycling Facility EPR/HB3802HF | NRS Meriden Aggregates Ltd | 1,978 |
| | Barnsley | | Land Pontefract Rd & Burton Rd Junction | Sealquest Ltd | 1,150 |
| | Bradford City | | Old Crown Dyeworks | Ellis Fairbank Recycling Ltd | 1,180 |
| | Calderdale | | West Yorkshire Water | Matthew Berrett | 9,289 |
| | Wakefield | | Willowbridge Lane Aggregates Recycling Facility | Allied Plant Ltd | 4,206 |

## Appendix 5: Suggested Revised Site Selection Criteria

***Category 1a - Higher Significance Constraints***

- Ancient woodlands (including PAWS)
- Areas of Outstanding Natural Beauty (AONB) (now 'National Landscapes') *
- Common Land
- Conservation Area
- Grade I and II* Listed Buildings and their Setting (within actual site)
- Ramsar Sites
- Registered Parks and Gardens (within actual site)
- Scheduled Ancient Monuments (SAM) (within actual site)
- Sites of Special Scientific Interest (SSSIs)
- Special Areas of Conservation (SACs) and potential SACs
- Special Protection Areas (SPAs) and candidate SPAs

***Category 1b – Significant Constraints****

- Access and distance to classified road
- Air Quality Management Area
- Airport Safeguarding Zones (Depends on their location and how site could be worked and restored)
- Cemeteries
- Country Parks
- Grade I and II Listed Buildings around site
- Grade II Listed Buildings and below and their Setting
- Ground Water Source Protection Zone
- Known archaeological features
- Local Nature Reserves
- Main River
- Protected habitats and species
- Public open space inc. National Trust Land
- Public open space inc. National Trust Land

*Dependent on the need for the material, specific location within, mitigation measures possible, likely method of working and restoration. Would need further investigation to pass through sieve.

***Category 2 (Lower significance)***

- Amenity - buffer of 250m around urban areas may also be applied (noise, dust)
- Areas of Geodiversity interest
- Areas sterilised by waste landfill
- Existing open spaces
- Grade 1 and 2 and 3a agricultural land
- Green Belt
- Historic Environment (archaeology - other)
- Landscape (other)

- Locally Listed Buildings
- Local non-statutory designations and allocations in Local Plan
- Other Factors (National Grid buffer areas; Coal Mining; Topographical)
- Rights of Way
- Settings of Registered Parks & Gardens
- Sewage works
- Storage/parking areas attached to industrial areas
- Tree Preservation Orders
- Woodlands (not ancient)

## Appendix 6: Glossary

| Term | Definition |
|---|---|
| Agent of Change | A developer introducing a new land use into an existing area, responsible for managing the impact of that change. |
| Aggregate | Granular material such as sand, gravel, and crushed stone used in construction. |
| Aggregate Working Party (AWP) | Government sponsored regional groups comprising mineral planning authorities and the minerals industry that monitor aggregate supply and advise on maintaining a steady and adequate supply by, amongst other things, preparing an annual report. |
| Amenity | The pleasant aspects of a location that contribute to its overall character and the quality of life for residents, business users and visitors. |
| Annual Monitoring Report (AMR) | A report that principally monitors the implementation of local development policies and achievement of objectives and progress in the preparation of local plans. The AMR is formally known in legislation as the 'Authority Monitoring Report'. |
| Areas of Search (AoS) | Broad areas where mineral resources are thought to exist but require further investigation. These areas may offer suitable opportunities for the development of new sites. |
| Biodiversity | The variety of all life on earth (mammals, birds, fish, invertebrates, plants, etc). |
| Biodiversity Action Plan (BAP) | A strategy for conserving and enhancing biological diversity, setting measurable targets. |
| Biodiversity Net Gain (BNG) | An approach that ensures development leaves biodiversity in a measurably better state than before. |
| Biodiversity Opportunity Areas (BOAs) | Concept identifying areas where significant habitat enhancement, restoration, and recreation gains can be made. |
| Brownfield Land | Previously developed land that may be derelict or in need of redevelopment. |
| Buffer zone | A zone or area that separates mineral supply facilities from other land-uses to safeguard local amenity. |
| Call for Sites | An early stage in the local plan process where landowners and developers can propose sites for allocation in the local plan. |
| Carbon Capture and Storage (CCS) | Technology used to capture and store carbon dioxide emissions to mitigate climate change. |
| Construction, Demolition, and Excavation (CD&E) Waste | Waste generated from construction, demolition, and excavation activities comprising materials that can be used to produce recycled aggregate. |
| Development Plan Document (DPD) | A statutory planning document outlining policies for development and land use. |
| Environmental Impact Assessment (EIA) | A process to assess the potential environmental effects of a proposed development. |
| Geographic Information Systems (GIS) | Software systems used to collect, analyse, and manage spatial and geographic data. |

| Term | Definition |
|---|---|
| Heavy Goods Vehicle (HGV) | A lorry used to transport heavy loads, including minerals and waste. |
| Hydrocarbons | Organic compounds consisting of hydrogen and carbon, including oil and natural gas. |
| Local Aggregates Assessment (LAA) | An annual report on aggregate supply and demand in a specific mineral planning authority area or combined area. |
| Local Nature Recovery Strategy (LNRS) | A government initiative in England aimed at reversing the decline of nature and biodiversity. Under the Environment Act 2021, each LNRS is locally led and involves stakeholders identifying priorities for nature recovery with actions to achieve these goals. The strategies include a local habitat map and a written statement of biodiversity priorities. |
| Mineral Extraction Sites | See 'Specific Sites' below |
| Mineral Planning Authority (MPA) | The local authority responsible for planning for development related to mineral supply including mineral extraction, processing and transportation. |
| Mineral Safeguarding Area (MSA) | An area identified to prevent unnecessary sterilisation of valuable mineral resources. |
| National Planning Policy Framework (NPPF) | The UK Government's planning policies for England. |
| Planning Practice Guidance (PPG) | Government guidance on planning matters that supports the interpretation and application of the NPPF. |
| Plan area | The geographical area covered by Kirklees Council |
| Preferred Areas | Areas identified in the local plan as suitable for mineral extraction based on known resource quality and quantity. |
| Recycled Aggregate (RA) | Material, such as hardcore and bricks, recovered from, and reused in, construction projects. |
| Red-Amber-Green (RAG) Rating | A method of categorising the suitability of a site for development based on an assessment applying specific suitability criteria. |
| Site of Special Scientific Interest (SSSI) | A conservation designation for areas of ecological or geological significance. |
| Special Area of Conservation (SAC) | A protected area designated for the conservation of specific habitats and species. |
| Special Protection Area (SPA) | Areas designated under the EU Birds Directive to protect important bird species and their habitats. SPAs are part of the UK's national site network and continue to be protected post-Brexit under UK legislation. They are often associated with wetlands, coastal areas, and other critical habitats for migratory or endangered bird species. |
| Specific Sites<br>Also known as 'allocated sites' | Sites where viable resources are known to exist, landowners are supportive of minerals development and the proposal is likely to be acceptable in planning terms. Such sites may also include essential operations associated with mineral extraction; |
| Sustainability Appraisal (SA) | An assessment of a local plan in terms of how well it promotes sustainable development. |
| Tonnes per Annum (tpa) | A measure of material quantity processed or produced annually. |

| Term | Definition |
|---|---|
| Transfer Stations | Facilities where waste is collected and transferred to other sites for processing or disposal. |
| Waste Data Interrogator (WDI) | An Environment Agency online tool used to compile and analyse waste data reported from waste management sites with Environmental Permits. |
| Waste Planning Authority (WPA) | A local planning authority with responsibility for planning for the management of waste |