

# Identifying future minerals sites

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Development of a methodology

Updated October 2016

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## 1. Introduction

- 1.1 This Paper explains how potential mineral sites will be identified and assessed, leading to the identification of suitable mineral allocations in the Local Plan. The proposed methodology provides the steps that should be carried out to gather robust evidence to inform the selection of allocations. It is important that the principles established by the methodology accord with the requirements of the National Planning Policy Framework (NPPF).
- 1.2 The Paper addresses the following issues:
- The work which has previously been undertaken by Kirklees Council on site selection;
  - The steps that will be taken for the site search, initial assessment and selection for mineral sites.
- 1.3 As mineral planning authorities, Kirklees are required to plan for a steady and adequate supply of minerals to meet future demand for minerals in the Plan area. To meet the future need for some minerals, such as sand and gravel, the Local Plan will need to include suitable sites to allocate for extraction. To do this Kirklees must identify and assess potential mineral sites and, from a list of potential options, select the sites most suitable for allocation in the Plan.

## 2. National Requirements

- 2.1 Minerals are essential to the nation's prosperity and quality of life. It is important that there is an adequate and steady supply of material to provide the infrastructure, buildings and goods that society, industry and the economy needs. It is also important that this provision is made in accordance with the principles of sustainable development.
- 2.2 Paragraph 143 of the NPPF requires that Local Plans should allocate sites to promote development and flexible use of land. Specifically in relation to planning for aggregate minerals, the NPPF states that Mineral Planning Authorities should plan for a steady and adequate supply of minerals and make provision for aggregates in the form of specific sites, preferred areas and/or areas of search and locational criteria as appropriate.
- 2.3 Government guidance on the supply of aggregates set out within the National Planning Practice Guidance notes that planning for the supply of minerals has a number of special characteristics that are not present in other development:
- minerals can only be worked (i.e. extracted) where they naturally occur, so location options for the economically viable and environmentally acceptable

extraction of minerals may be limited. This means that it is necessary to consider protecting minerals from non-minerals development and has implications for the preparation of minerals plans and approving non-mineral development in defined mineral safeguarding areas;

- working is a temporary use of land, although it often takes place over a long period of time;
- working may have adverse and positive environmental effects, but some adverse effects can be effectively mitigated;
- since extraction of minerals is a continuous process of development, there is a requirement for routine monitoring, and if necessary, enforcement to secure compliance with conditions that are necessary to mitigate impacts of minerals working operations; and
- following working, land should be restored to make it suitable for beneficial after-use.

2.4 The PPG also states that provision for land won aggregates extraction should take the form of specific site allocations, wherever possible, but the identification of preferred areas and/or areas of search may be appropriate (Table 1)

**Table 1: Provision for land won aggregates extraction**

Specific Sites	Sites with existing and viable mineral resources and with a clearly defined boundary where development is acceptable in principle.
Preferred Areas	Clearly defined areas of known resources, but are subject to a lesser degree of precision with regard to the definition of the actual site, which may be suitable in principle for development.  Preferred Areas may need to be subject to a more detailed evaluation to identify the extent of the development area with more precision.
Areas of Search	Likely to be more geographically extensive areas, generally defined with a lesser degree of precision than Preferred Areas and are likely to be characterised by less robust information about the extent and viability of the potential resource.  They are intended to direct potential developers to areas where suitable sites may be located and where support in principle, subject to identification of a suitable site, is likely to be provided by the planning authority.

2.5 In June 2009, CLG published the 'National and regional guidelines for aggregate provision in England 2005 - 2020' The new guidelines replace those published in 2003 covering the period 2001-16 and set out requirements for the provision of aggregates minerals for this period which each regions is asked to assist in delivering.

### 3. Minerals in Kirklees

- 3.1 The underlying geology of Kirklees means that the plan area has a broad range of mineral deposits and resources. Minerals that have been extracted from within Kirklees include coal, sandstone, clay and shale, sand and gravel and Brick Clay and Fire Clay.
- 3.2 In West Yorkshire opencast coal mining is concentrated in Leeds and Wakefield Districts. There has not been an operational opencast coal mine in Kirklees since 1984 perhaps because the local geology is more difficult and because of the extent of previous extraction in the exposed coalfield within Kirklees during the 1950's and 1960's.
- 3.3 The Carboniferous Millstone Grit and Pennine Coal Measures of Yorkshire have traditionally been extensively used as a source of building stone. Sandstone which is extracted in Kirklees serves a local and national market for building stone and flagstone and a local market for aggregate. Substantial permitted reserves of gritstone for dimension stone extraction exist in the District.

#### *Aggregate Minerals in Kirklees*

- 3.4 There are currently 36 active quarries and 1 inactive quarry contributing to the production of crushed rock aggregate in West Yorkshire and 2 quarries contributing to the production of sand and gravel. Within Kirklees itself, there are 8 active quarries producing crushed rock and 1 producing sand and gravel, see Table 2 below for details.
- 3.5 Further sources of sand and gravel are found within South Yorkshire, who contributes to meeting both the apportionment and maintenance of the landbank. The South Yorkshire LAA indicates 7 quarries permitted for the working of sand and gravel, with only 3 currently classed as active, one of which is only operating on a part time basis.
- 3.6 The sandstone in Kirklees serves a local and national market for building stone and flagstone and a local market for aggregate. It is important to note that, although the sandstone sites are listed as producing crushed rock, this is not necessarily the main product from these sites, and as such consideration for new sites of sandstone would not necessarily be based on a need for aggregate.

**Table 2: Active sandstone quarries in Kirklees<sup>1</sup>**

Site Name	Operator	Aggregate
Moselden Quarry, Scammonden	Marshalls Natural Stone	Sandstone, grit
Crosland Moor Quarries, Huddersfield	Johnson Wellfield Quarries	Sandstone, grit
Windy Ridge Quarry, Holmfirth	S. Peel and Son	Sandstone, grit
Hillhouse Edge Quarry, Holmfirth	Saxon Moor Ltd.	Sandstone, grit
Appleton Quarry, Shepley	Marshalls Natural Stone	Sandstone, grit
Sovereign Quarry, Shepley	Marshalls Natural Stone	Sandstone, grit
Temple Quarry, Grange Moor	Holgate Construction Ltd	Sandstone, grit
Woodhouse Quarry, Holmfirth		Sandstone, grit

### *Other Minerals in Kirklees*

3.7 There are a number of sandstone deposits in Kirklees with the principal activity of these sites being the production of building stone. Information on 8 sites with potential for building stone were submitted to the council in 2008, 2 of which also indicated the co-production of pipeclay. Information submitted in support of some sites indicated low annual tonnages of around 1000tpa equating to a hundred year supply. 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.

3.8 In addition to aggregate minerals discussed, Kirklees also produce pipeclay which is of national significance and have a past history of Coal extraction. Several quarries in the vicinity of Denby Dale and Holmfirth extract Coal Measures mudstone for use in the manufacture of vitrified clay pipes at a plant in South Yorkshire. Brick clay has been worked extensively in the past, mostly from a number of mudstone horizons in the Pennine Coal Measures, and today the Coal Measures remain the principal brick clay resource in northern England. Resources of brick clay are extensive in West Yorkshire and there are several large production units for facing bricks, near Elland, Leeds, Normanton and Wakefield. A list of active clay and shale and pipeclay sites in Kirklees is provided in Table 3 below.

<sup>1</sup> Source Y&HAWP 2013

3.9 Although there is no specific identified need for these materials in the same way aggregates are planned for, it is recognised that material extracted within Kirklees is of national significance and as such the plan should seek to identify future areas where extraction may take place. Extraction of clay and shale is currently estimated at around 100,000tpa, with clay being extracted from a number of sites to be blended to form the final product. On this basis, demand for product from particular sites can change depending on that need.

3.10 During the call for sites work, 5 quarries were put forward for the extraction of clay shales and pipeclay, 2 of which also included sandstone extraction.

3.11 The development of a methodology for minerals in Kirklees will therefore need to address the need for a continued supply of clay and shale and pipeclay over the plan period.

**Table 3: Active clay and shale and pipeclay sites in Kirklees**

Site name	Operator	Mineral type
Henperch Quarry	Hepworth Building products	Pipeclay
Appleton Quarry	Marshalls	Pipeclay
Bromley Farm	Naylor Clay Products	Pipeclay
Bromley Farm	Wavin Ltd	Pipeclay
Ox Lee Quarry	Waving Ltd	Clay and shale
Peace Wood Quarry	Naylors Clay Products	Pipeclay

3.12 Table 4 below provides details of current reserves for blockstone and Pipeclay in Kirklees and an estimate of the life of the reserve based on current annual average production rates.

**Table 4: Current reserves for blockstone and Pipeclay**

Reserve type	Current reserve <sup>2</sup>	Annual production rate <sup>3</sup>	Estimate life of reserve
Blockstone	970,000 tonnes	72,200tpa up to 2025 reducing 46,200tpa up to 2028 and then 20,200tpa for rest of the plan period	18.4 years based on the assumed production rates
Pipeclay	1,355,000 tonnes	100,000tpa until 2017, 89,000tpa until 2021	17.9yrs years based on the assumed

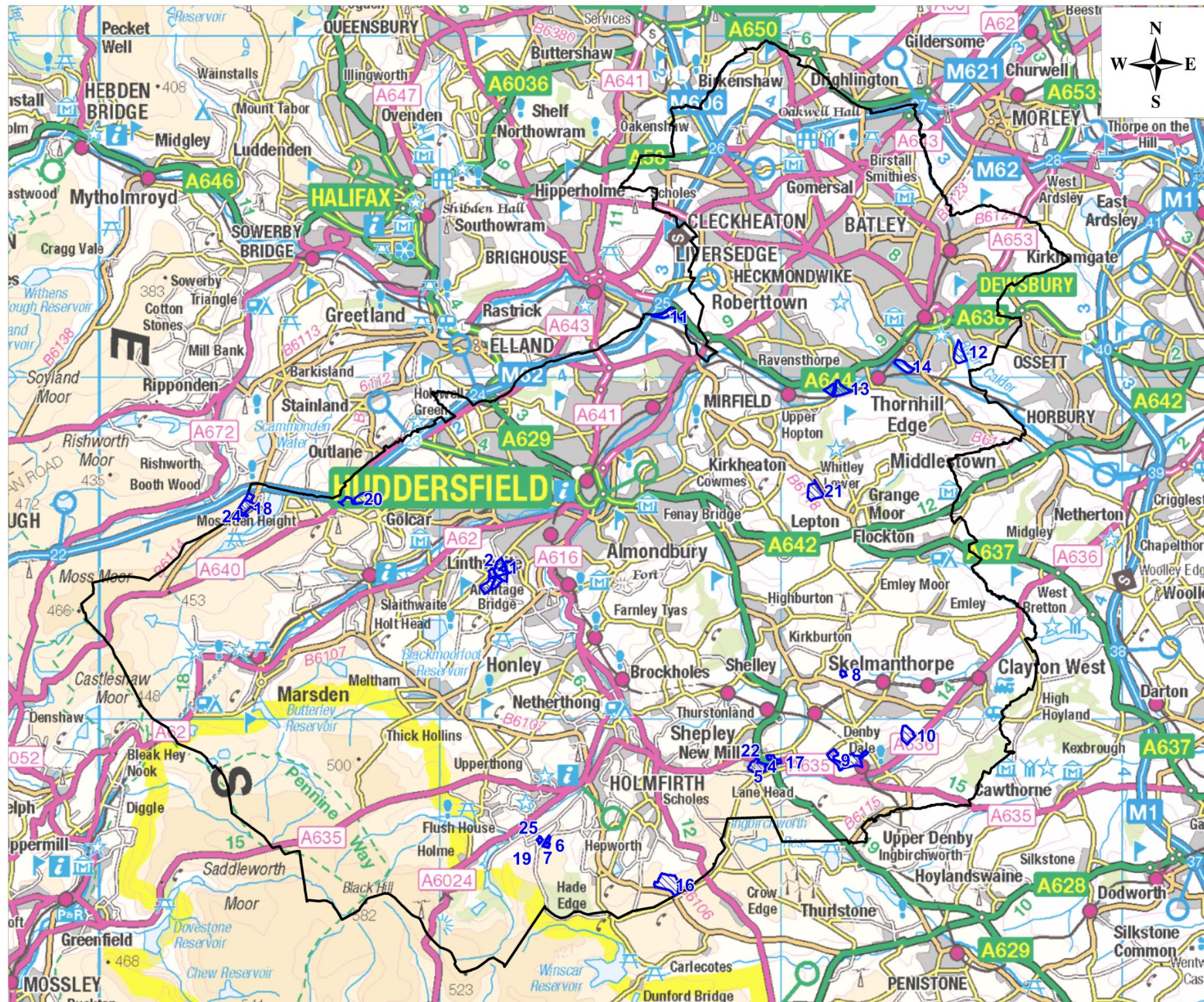
<sup>2</sup> NB the reserve figure is combined for all existing active quarries and does not account for any end dates within the plan period.

<sup>3</sup> Annual tonnage based on information from planning permission and/or details submitted as part of the call for sites and area average rates of production.



		78,000tpa, 67,000tpa until 2024 then 56,000tpa for the remaining plan period	production rates
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3.13 Table 4 identifies that for both pipeclay and blockstone, there are sufficient reserves to meet assumed supply based on production rates for the plan period. However, in both cases, reserves are depleted shortly after the end of the plan period (2031) and as such there may be a case to consider identification of additional reserves as part of the development of the plan in line with para 143 of the NPPF. In the case of clay, there is a need to maintain a landbank. Paragraph 146 of the NPPF identifies the need to maintain a supply of clay for the cement industry of at least 15 years and for brickclay at least 25 years. In terms of the need for pipeclay, it is considered more in line with the needs of the brick manufacturing industry and as such a 25 years requirement would need to be provided for. The current reserves of pipeclay based on the production rates provide for almost 18yrs supply, therefore in order to meet the 25 years supply additional sites will need to be allocated in the plan period.



**Existing Sites**

- 1 - Wellfield Quarry
- 2 - Waterholes Quarry
- 3 - Moorfield Quarry
- 4 - Appleton Quarry
- 5 - Sovereign Quarry,
- 6 - Whitegate Quarry
- 7 - Hill House Edge Quarry
- 8 - Peace Wood Quarry
- 9 - Bromley Farm Quarry
- 10 - Hen Perch Quarry
- 11 - Kirklees Lock
- 12 - Sand Mill
- 13 - Shepley Bridge
- 14 - Forge Lane
- 15 - Land at Crosland Moor
- 16 - Ox Lee
- 17 - Carr Hill Quarry
- 18 - Moselden Heights Quarry and extension area
- 19 - Woodhouse Quarry
- 20 - Rockingstones Quarry
- 21 - Temple Quarry
- 22 - Land adjacent to Appleton Quarry
- 23 - Land off Thewlis Lane
- 24 - Land adjacent to Moselden Quarry
- 25 - Windy Ridge Quarry

**Key**

-  Kirklees Boundary
-  Existing Minerals Sites

Client: Kirklees Council  
 Job Ref: UV/005956  
 Date: April 2015  
 Scale: 1:120,000 @A3

**Kirklees Existing Minerals Sites**

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## 4. Mineral Requirements

- 4.1 Kirklees Council forms part of the wider West Yorkshire region for the purpose of planning for minerals. The West Yorkshire sub-region comprises Leeds City Council, Bradford Council, Kirklees Council, Wakefield Metropolitan District Council and Calderdale Council.
- 4.2 The West Yorkshire Grouping forms part of the wider Yorkshire and Humber Aggregate Working Party (AWP), and it is as part of this grouping that the West Yorkshire Authorities are required to provide for a steady supply of aggregates to meet the Annual Apportionment. For reporting on Sand and Gravel, the figures in the AWP Annual Monitoring Report provide information on the perceived requirements for West Yorkshire as well as the total combined apportionment Figure including South Yorkshire. The apportionment for West Yorkshire is shown in [Table 5](#) below.

**Table 5: West Yorkshire Aggregate Apportionment 2001-2016**

	<b>Aggregate Apportionment (mt)</b>
Land won sand and gravel	5.5
Land won crushed rock	17.8

### *Local Aggregate Assessment*

- 4.3 The Yorkshire and Humber Aggregate Working Party (Y&HAWP) have not come to an agreement on apportioning the 2005-2020 figures out across the constituent MPAs, and as such the AWP reports are informed on the apportionments as set out in the now revoked RSS which cover the period 2001-2016. Reference to apportionment figures in this report relate to the 2001-2016 figures.
- 4.4 In line with NPPF, the West Yorkshire LAA forecasts sets out a future demand for aggregates based on the average of 10-year sales data. A ten year period covers the recent economic downturn and the more prosperous period before this and therefore would appear to be realistic in forecasting future demand. This figure provides a lower annual production figure for future supply than would be provided should the apportionment figure be taken forward. This is in line with past sales, however it should be noted that sales of sand and gravel are still reported jointly with South Yorkshire, and in recent years this has not reached above 0.24mt per annum and, in addition, past years of reporting have included non-aggregate sand and gravel, affecting the ability to identify a

pattern of sand and gravel sales prior to 2009<sup>4</sup>. Furthermore, there are also years in which there are gaps in data reported, providing an incomplete dataset on which to project forward.

- 4.5 Data on past sales in the Y&HAWP annual monitoring report are presented jointly for sand and gravel with South Yorkshire and cover a period of 7 years rather than 10 yrs.
- 4.6 Although the figures provided through the LAA are considerably lower than the annual apportionment, the approach was tested through the examination of the Leeds Natural Resources and Waste Local Plan, which was adopted in January 2013 and as such is considered an acceptable way forward. In addition, since the RSS was revoked, the AWP apportionment figures in the AWP AMR are now out of date and as such the authorities are planning for future provision based on past sales and projected future need in line with the LAA (Table 6).

**Table 6: Annual Apportionment**

	<b>Annual Apportionment (mt) based on 2001-16 figs</b>	<b>Annual apportionment based on draft LAA 2013 (mt)</b>
Land won sand and gravel South and West Yorkshire	0.37	0.13
Land won crushed rock West Yorkshire	1.18	0.9

- 4.7 The agreed approach to the provision of aggregates in West Yorkshire is set out in the Joint LAA and this figure is based on past 10 years sales<sup>5</sup>.
- 4.8 For sand and gravel, there is no specified approach to individual local planning authorities in meeting this need, and as such it is assumed that each authority will be contributing towards meeting the sub-regional apportionment. It is accepted that sand and gravel is currently only extracted in Wakefield, Kirklees and Doncaster and historically in Leeds.
- 4.9 To protect the commercial sensitivity of each operator it is expected future requirements and reporting for sand and gravel will remain as a combined approach with West Yorkshire and South Yorkshire. The current landbank for Sand and Gravel has been calculated on this basis.
- 4.10 In view of the above approach to apportionment, the landbank for Sand & Gravel can only be provided on a joint basis with South Yorkshire due to gaps in data and past collated sales data. Based on 10 years average sales 2003-

<sup>4</sup> Source Y&HAWP Annual Monitoring Report 2013

<sup>5</sup> Source Local Aggregate Assessment 2013 for West Yorkshire Draft version 7

2012 the landbank figure was 12.3 years<sup>6</sup>, which exceeds the 7 year requirement, and this figure is based on the annual sales of 0.47mpa.

- 4.11 The Landbank for crushed rock in West Yorkshire at the end of December 2012 based on 10 year average sales data 2002 -2012 was 28.4yrs, again this is above the required level.
- 4.12 For both sand and gravel and crushed rock, although the annual sales are low and the landbank extends beyond the required period, the quality of the material is such that reliance on imports is necessary over the plan period. In addition, further local sources of sand and gravel within West Yorkshire will be necessary for the sub region to continue to provide independently of South Yorkshire, as there is no agreement in place for them to make provision outside of their own area to meet the apportionments and to provide for local need.
- 4.13 It is noted that aggregate from West Yorkshire is generally considered to be of low quality serving a local market rather than export. In addition, production of recycled and secondary aggregate in the region is high and this is seen to contribute to the requirements of aggregate in the region<sup>7</sup>. Recycled and secondary aggregate from West Yorkshire is also exported out of the area to serve markets in the wider Yorkshire and Humber region.
- 4.14 The primary output from sandstone quarries in Kirklees is of blockstone / building stone rather than crushed aggregate. This was reflected in the 2001-2016 sub-regional apportionments for aggregate. However, it is accepted that a large proportion of product is crushed rock.
- 4.15 Sales of sand and gravel from West Yorkshire have been considerably below the annual apportionment level for the years in which the data has been reported for this sub-region. This is due to a number of factors including low local demand and availability of sand and gravel reserves. The draft LAA also comments that there are a number of constraints to identifying and extracting new sand and gravel deposits in West Yorkshire which is restricting development of this aggregate resource.
- 4.16 The West Yorkshire LAA has looked at projected future need for aggregates in the region based on per capita consumption of aggregates as described in paragraphs 4.17 – 4.20 below. The national guidelines suggest that across England per capita consumption of aggregate is around 3 tonnes per head per annum, of which 37% is land won sand and gravel, 53% land won crushed rock aggregate and 10% marine sand and gravel.

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<sup>6</sup> Source Local Aggregate Assessment 2013 for West Yorkshire Draft version 7

<sup>7</sup> Source West Yorkshire LAA 2012.

- 4.17 The British Geological Survey (BGS) national collation of the 2009 aggregate mineral surveys indicates that total consumption of aggregate in the YH region was 10,679 million tonnes, with West Yorkshire consumption of 3,142 million tonnes.
- 4.18 The 2012 mid-year population of the region is 5,316,700. Based on these figures this equates to per capita consumption of 2 tonnes per head across the region, but around 1.5 tonnes per head for West Yorkshire. The LAA assumes that some caution must be applied when using these figures as major infrastructure projects (for example upgrading the A1) may affect the breakdown across sub areas.
- 4.19 The lower 1.5 tonnes per capita would indicate an overall demand in West Yorkshire of around 3.1 to 3.3 million tonnes per annum, more than twice the tonnage being produced internally, suggesting imports into the county of well over 1 million tonnes per annum. The LAA recognises that for aggregates minerals, due to the quality issues, the region will remain a net importer and the LAA highlights areas where it expects this requirement to come from going forward. In line with the requirements of duty to co-operate, it is expected that all authorities where such resources are likely to be imported should be contacted as part of the development of the plan in line with the requirements of producing a LAA to ensure that this need is being met elsewhere.
- 4.20 In addition to the role of imports, it is necessary for the Kirklees Local Plan to identify how it will meet its minerals requirements over the plan period. The plan will need to make sufficient provision to meet the anticipated need over the period of the plan and will therefore identify and protect minerals resources. It is likely that the plan will need to identify a combination of sites/preferred areas and areas of search for future primary minerals extraction and the methodology for this is set out in Section 4. It will also identify future processing/transport facilities for minerals related development.

## 5 Methodology

### Identifying future minerals in Kirklees

- 5.1 This section of the Paper sets out a proposed methodology for site selection and site appraisal. The Council may wish to take this recommended approach into consideration when identifying suitable mineral allocations in the Local Plan.
- 5.2 Para 143 of the National Planning Policy Framework states that “in preparing Local Plans, the local planning authorities should identify and include policies for extraction of minerals resource of local and national importance in their area. In addition Paragraph 145 states that Minerals Planning Authorities should plan for a steady and adequate supply of aggregates by making provision for the land-won and other elements of their Local Aggregate Assessment in their minerals plans taking account of the advice of the Aggregate Working Parties and the National Aggregate Co-ordinating Group as appropriate. Such provision should take the form of (in priority order) specific sites, preferred areas and/or areas of search and location criteria as appropriate. National guidance highlights the importance of identifying sites in documents such as the Minerals Plan and mineral operators should aim to offer such sites for consideration at an early stage of plan preparation.
- 5.3 A total of 13 submissions were received from the industry in 2008, this equated to 17 proposals, 10 of which were extensions to existing sites, 5 for allocation as an MSA and 2 to retain their status as existing minerals sites. The operators were contacted again last year (2014), only three operators responded confirming their position and it is assumed that the existing information submitted in 2008 still stands. It is suggested that the operators are contacted again if they did not respond to establish if this assumption is correct. Saville Estates put forward a sand and gravel site in 2008. However, the sites information to date is mainly limited to building stone (with some ancillary development of aggregate) and clay.
- 5.4 At the time of this report a further 5 submissions were received in March 2015, equating to 7 proposals. 2 were for allocation as an MSA and 3 were for Dimension Stone extraction split into 3 phases and 2 were for Dimension Stone. Table 7 below shows the new submissions.

**Table 7: Call for site submissions Received in March 2015**

Site Address	Proposed Allocation
Seventy Acre Farm Phase 1	Dimension Stone Extraction
Seventy Acre Farm Phase 2	Dimension Stone Extraction
Seventy Acre Farm Phase 3	Dimension Stone Extraction

Crossland Edge	Extraction of Blockstone
Land at Moor End Farm	Extraction of Sandstone Block
Honley Wood	Extraction of Blockstone
Area of Land at Crossland Moor	Minerals Safeguarding Area
Land at Bolster Moor	Minerals Safeguarding Area

5.5 All sites put forward will need to be appraised against the final methodology developed for identifying minerals resources in Kirklees.

5.6 The majority of sites put forward in 2008 were extensions to existing sites. In regards to extensions to existing sites, the NPPG states that all proposals should be considered on their own merits taking into account issues such as:

- The 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); and
- the cumulative impact of proposals in an area

5.7 For any industry submissions for mineral site allocations the following information is necessary:

- Agreement in writing from the land owner 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

5.8 To ensure all sites are assessed equally the final methodology developed by the Council should be applied to all sites.

### *Development of a site search methodology*

5.9 The following methodology is the recommended approach for the Council to consider when identify future locations for Coal, sand and gravel, sandstone, clay and shale and pipeclay in Kirklees.



5.10 The starting point for identifying resources for future development is twofold. The first stage is to identify those minerals for which allocations may be necessary; this has been set out above, with the following minerals being identified:

- sand and gravel;
- Sandstone as blockstone for the building industry with ancillary development of sandstone for aggregate;
- Clay and shale;
- Pipeclay; and
- Coal

5.11 The second stage is to identify where those resources lie. This is done using published data from the BGS, the Coal Authority and information submitted by the industry and landowners through the 'Call for Sites' exercise.

5.12 Once the extent of the resources have been identified, a set of criteria for refining them is necessary to ensure a fair approach to new and extensions to existing sites is obtained. This is undertaken through identifying potential constraints and applying them to the identified resource.

5.13 The below constraints are for use in refining the mineral resource information, and they have been divided into two categories. Category 1 constraints are considered to be absolute in normal circumstances. Category 2 constraints include those where the Mineral Planning Authority would normally prefer mineral working did not take place, particularly where it can be demonstrated that adequate reserves exist elsewhere. The category 2 constraints proposed are not necessarily absolute constraints but will inform the assessment of the suitability of an area or not for future minerals development.

5.14 Category 1 Constraints:

- Special Protection Area and Candidate Special Protection Area
- Special Area of Conservation and Potential Area of Conservation
- Areas of Outstanding Natural Beauty
- Scheduled Ancient Monuments
- National Trust sites
- Sites of Special Scientific Interest
- Grade 1 and 2 agricultural land
- Country Parks
- Conservation Area
- Public Open Space
- Registered Parks and Gardens
- Local nature reserve
- Ground water sources<sup>8</sup>
- Registered Battlefields

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<sup>8</sup> Although identified as a category 1 constraint, proposals put forward with appropriate mitigation may be possible on a site by site basis, but should be used as a constraint when identifying areas of search.

#### 5.15 Category 2 Constraints:

- Grade 3a agricultural land
- Woodlands
- River valleys
- Settings of registered Parks and Gardens
- Local non statutory designations as set out in the Local Plan

5.16 Where appropriate the Council may also seek to achieve a buffer zone of 250m from the urban area to protect residents from the noise and dust that can be created through quarrying activities.

5.17 In line with Paragraph 90 of the NPPF, greenbelt land has not been included as a constraint for minerals development. This is to recognise that minerals can only be worked where they are found.

5.18 Areas affected by flood risk have also not been excluded as this is something which would be dealt with on a site by site basis through mitigation measures proposed by developers. Para 143 , bullet point 6 of NPPF sets out detailed environmental criteria that must be considered when determining planning applications and this includes a number of flood related issues. This type of information may be used to refine a boundary of a site/area allocation prior to including in a Local Plan, but is more likely to be required at the planning application stage or form part of a criteria based development policy.

5.19 Once the constraints have been applied, the planning reason for elimination of any resource would need to be recorded. The remaining resource would then need to be refined further as discussed below.

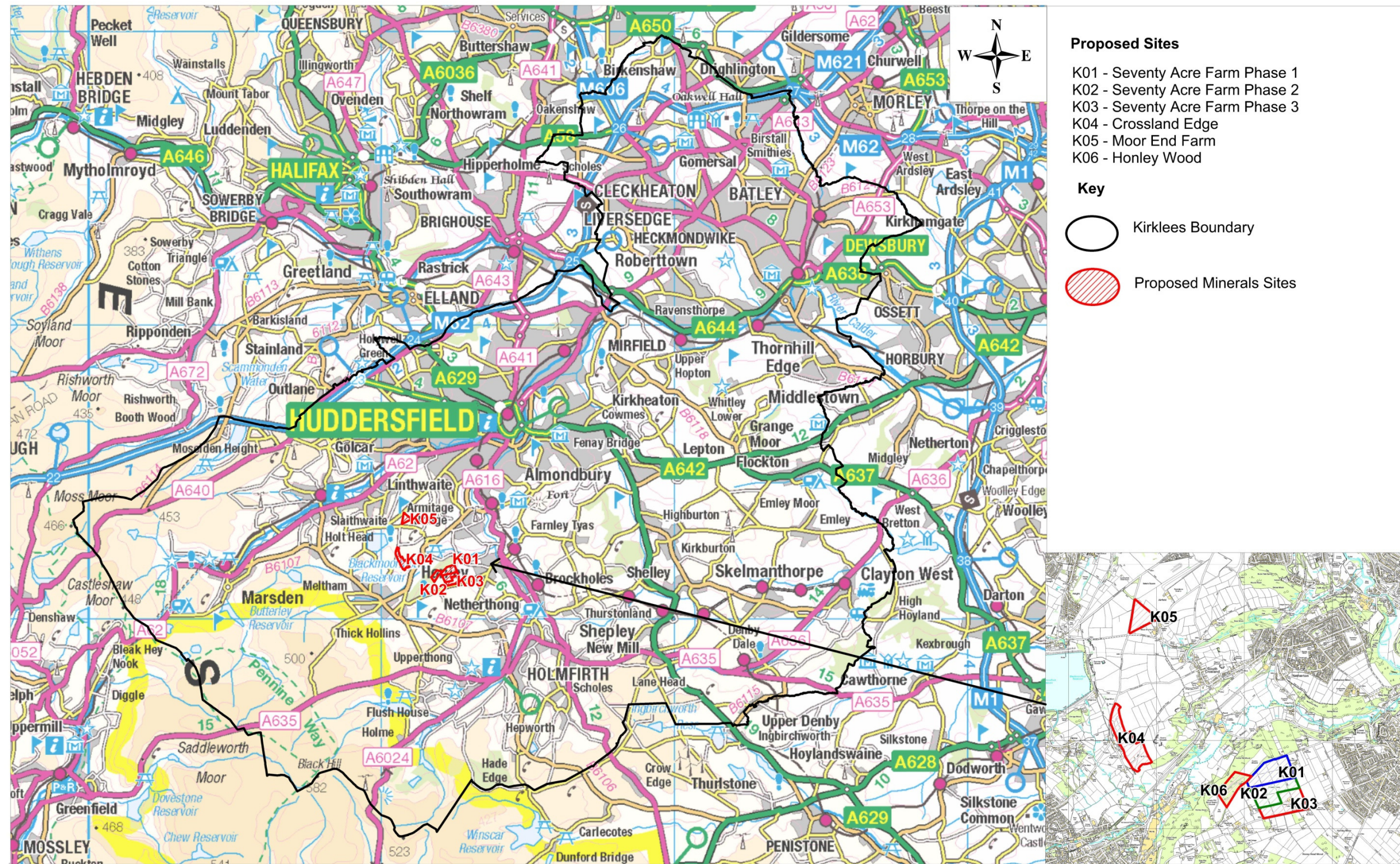
5.20 Where areas of search are identified, the application of further exclusions should be considered to remove areas in which there is little potential for minerals development to take place. This can be done by using local knowledge and the application of aerial photography through overlaying the information on the results of the sieving exercise in GIS over the identified resource areas. This process should consider excluding the following:

- Reservoirs
- Sewage works
- Storage/parking areas attached to industrial areas
- Existing minerals workings
- Areas sterilised by waste disposal
- Cemeteries
- Existing open spaces as identified in NPPF paras 74 -77

5.21 In addition to the above constraints, where specific sites and/or preferred areas are being considered that would impact on a public rights of way, an acceptable approach to overcoming this impact should be included as part of the development of a policy approach. The authority may wish to consider the use of public rights of way as a further exclusionary criterion, but in most cases the

right of way can be diverted to maintain access and would not make a potential site unfeasible.

5.22 Access to minerals sites can be an issue. When identifying allocations, appropriate access to a site or preferred area should be considered to ensure that any highways issues are considered as early in the planning process as possible. Any new infrastructure requirements (e.g. new access arrangements) should be included as part of the over allocation. This may be difficult to achieve for areas of search as it is not always possible to identify where any future minerals development would take place.



- Proposed Sites**
- K01 - Seventy Acre Farm Phase 1
  - K02 - Seventy Acre Farm Phase 2
  - K03 - Seventy Acre Farm Phase 3
  - K04 - Crossland Edge
  - K05 - Moor End Farm
  - K06 - Honley Wood

- Key**
- Kirklees Boundary
  - Proposed Minerals Sites

Client: Kirklees Council  
 Job Ref: UV/005956  
 Date: April 2015  
 Scale: 1:120,000 @A3

**Kirklees Proposed Minerals Sites**

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## 6 Summary

- 6.1 Sufficient reserves of crushed rock exist to meet the apportionment and landbank requirement for West Yorkshire based on 10 years past sales data. However, additional reserves may come forward as ancillary development to building stone quarries.
- 6.2 Sand and gravel reserves are limited, and although the current landbank based on 10 years past sales would suggest sufficient reserves exist, this figure is not working towards delivering the apportionment requirement, and should the apportionment figure be met, reserves would be depleted at a more rapid pace leaving the ability to maintain a landbank beyond the plan period difficult to achieve.
- 6.3 Kirklees is a key producer of pipeclay and additional areas for future extraction of this mineral will be required in order to provide for a 25yr supply. Current reserves are estimated to provide 18 years supply which falls short of the requirements identified in NPPF.
- 6.4 Reserves of blockstone will meet supply requirements during the plan period. However, reserves will be severely depleted by the end of the plan period. Although there is no specific landbank/supply requirement for blockstone, reserves in Kirklees provide for a wider than local need serving national markets and as such it is suggested that the Local Plan identifies sites/areas for future extraction.
- 6.5 The above recommended methodology should be consulted upon and any comments received during this consultation should be used to inform the preparation of the final site selection and appraisal methodology.