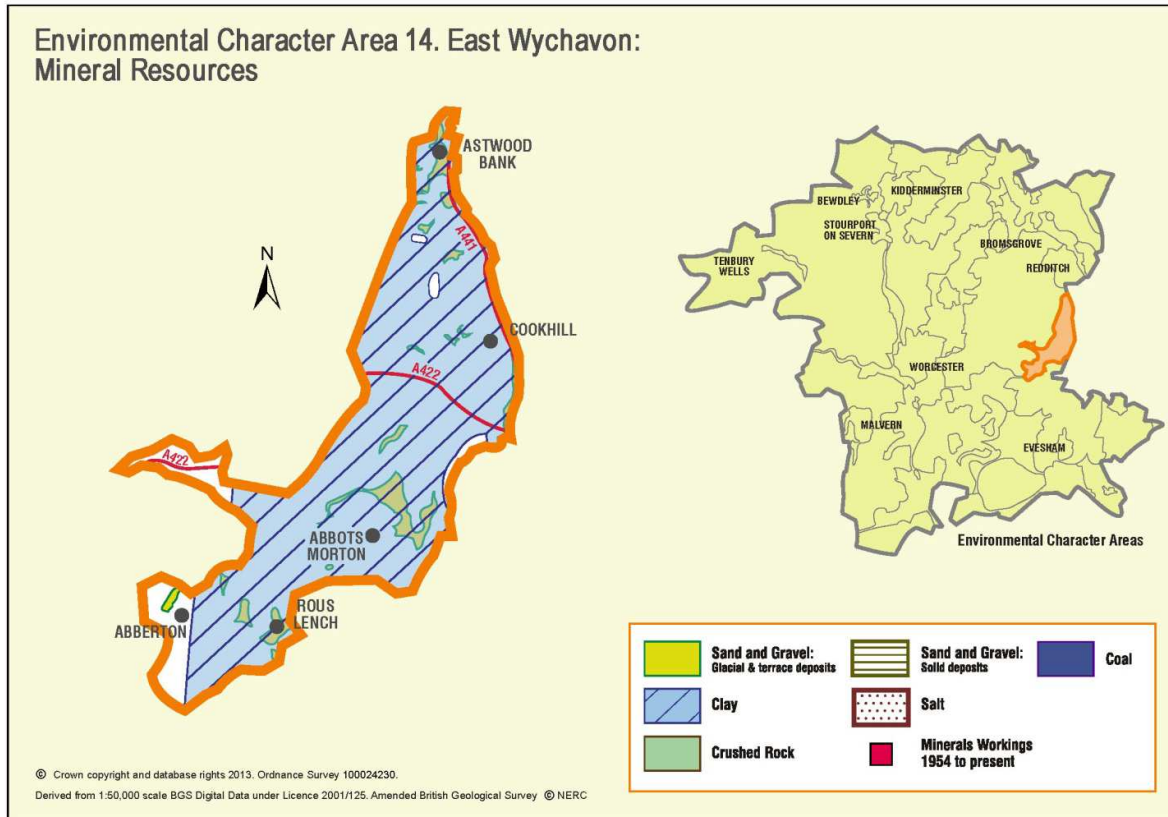


## Appendix 14: Analysis of aggregate resources in ECA 14: East Wychavon



### ECA Summary for the Fourth Stage consultation on MLP (Winter 2018):

#### Sand and gravel

There are 7 resource areas identified for sand and gravel in East Wychavon ECA:

- Significant: 2
- Not significant: 1
- Compromised: 4

#### Crushed rock

There are no resource areas identified in East Wychavon for crushed rock.

#### Non-aggregates

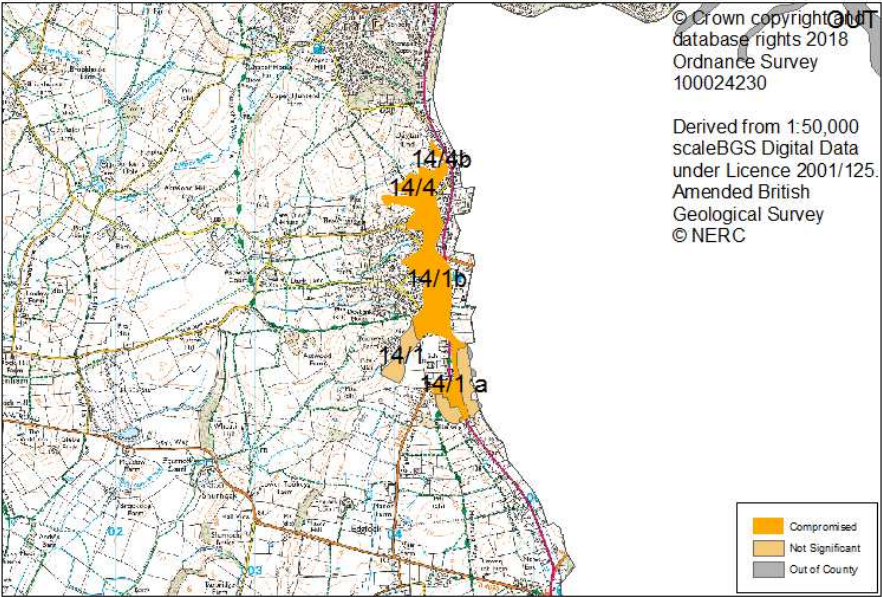
BGS data indicates that there are deposits of clay in this ECA.

## Overview of resource assessment for ECA 14

### Sand and gravel resource areas:

| Resource number* | Second Stage Consultation                                      |                 | Third Stage Consultation   |                 | Fourth Stage Consultation                           |  |             |
|------------------|--|-----------------|--|-----------------|---|--|-------------|
|                  | Original estimated resource tonnage (2 tonnes/m <sup>3</sup> ) | Significance    | Revised estimate of resource tonnage (1.65 tonnes/m <sup>3</sup> ) | Significance    | New resource number (where resource has been split) | Revised estimate of resource tonnage (1.65 tonnes/m <sup>3</sup> ) | Result      |
| 14/1             | Depth unknown  | Not significant | Depth unknown  | Not significant | Not reassessed                                      |  |             |
| 14/1 a           | Depth unknown  | Compromised     | Depth unknown  | Compromised     |   |  |             |
| 14/2             | 1,596,000  | Significant     | 1,316,700  | Significant     | 14/2  | 1,191,300  | Significant |
|                  |  |                 |  |                 | 14/2b   |  | Compromised |
| 14/3             | Depth unknown  | Significant     | Depth unknown  | Significant     | 14/3  | Depth unknown  | Significant |
|                  |  |                 |  |                 | 14/3b   |  | Compromised |
| 14/4             | Depth unknown  | Compromised     | Depth unknown  | Compromised     | Not reassessed                                      |  |             |

|                            |                       |
|----------------------------|-----------------------|
| <b>Overview</b>            |                       |
| <b>Resource number:</b>    | 14/1                  |
| <b>Resource name:</b>      | South of Astwood Bank |
| <b>Resource area:</b>      | 11ha                  |
| <b>Resource depth:</b>     | Not known             |
| <b>Location</b>            |                       |
| <b>OS sheet reference:</b> | SO 06 SW              |
| <b>National grid ref:</b>  | 404247, 262148        |



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|   |   |
|---|---|
| <b>Resource description:</b>  |   |
| <b>Resource description:</b>  | Glaciofluvial sand and gravel. The sand and gravel is commonly interdigitated with boulder clay, restricting the value of the potential resource although there have been many small scale workings. No information on thicknesses is available in BGS memoirs.   |
| <b>Assessment of resource for the second consultation on MLP (Autumn 2013)</b>                            |   |
| <b>Commentary:</b>  | The deposit extends under the village of Astwood Bank, this is assessed separately as resource area 14/1a. The 3 remaining pockets around the southern outskirts of the village are grouped into resource area 14/1 and cover 11 ha. The deposit also continues to the north of Astwood Bank village and this is also considered as a separate resource area (14/4) as it is separated by over 500m. The areas labelled as OUT are beyond of the county boundary in Warwickshire, they are therefore not considered in the resource assessment. |
| <b>Crude estimate of resource:</b>  | Depth not known.  |
| <b>Conclusion:</b>  | Not significant: Small deposit with no information to estimate the resource in this area.<br>Not for consideration in defining areas of search.   |
| <b>Assessment of resource for the Third Stage consultation on MLP (Spring 2015)</b>                       |   |
| <b>Revised estimate of resource:</b>  | No change to the assessment.  |
| <b>Conclusion:</b>  | Not significant.  |
| <b>Assessment of resource for the Fourth Stage consultation on MLP (August 2018)</b>                      |   |
| Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation |   |

|  |   |
|--|---|
| <b>Overview</b>  |   |
| <b>Resource number:</b>  | 14/1a   |
| <b>Resource name:</b>  | Astwood Bank  |
| <b>Resource area:</b>  | 26 ha   |
| <b>Resource depth:</b>   | Not known   |
| <b>Location</b>  |   |
| <b>OS sheet reference:</b>   | SO 06 SW  |
| <b>National grid ref:</b>  | 404290, 262186  |
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| <b>Resource description:</b>   |   |
| <b>Resource description:</b>   | Glaciofluvial sand and gravel. The sand and gravel is commonly interdigitated with boulder clay, restricting the value of the potential resource although there have been many small scale workings. No information on thicknesses is available in BGS memoirs. |
| <b>Assessment of resource for the second consultation on MLP (Autumn 2013)</b>   |   |
| <b>Commentary:</b>   | This resource area is overlain by the village of Astwood Bank. The areas outside of the village are considered as separate resource areas (14/1 and 14/4).  |
| <b>Crude estimate of resource:</b>   | Depth not known.  |
| <b>Conclusion:</b>   | Compromised by development.   |
| <b>Assessment of resource for the Third Stage consultation on MLP (Spring 2015)</b>  |   |
| <b>Revised estimate of resource:</b>   | No change to the assessment.  |
| <b>Conclusion:</b>   | Compromised by development.   |
| <b>Assessment of resource for the Fourth Stage consultation on MLP (August 2018)</b>   |   |
| Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation  |   |

|  |  |  |
|--|--|--|
| <b>Overview</b>  |  |  |
| <b>Resource number:</b>  | 14/2   |  |
| <b>Resource name:</b>  | South of Cookhill  |  |
| <b>Resource area:</b>  | 21ha   |  |
| <b>Resource depth:</b>   | Estimated 7.6m   |  |
| <b>Location</b>  |  |  |
| <b>OS sheet reference:</b>   | SO 05 NE   |  |
| <b>National grid ref:</b>  | 405600, 257745   |  |
| <b>Resource description:</b>   |  |  |
| <b>Resource description:</b>   | Glaciofluvial sand and gravel. The deposit comprises sand up to 7.6m thick with pebbly and clayey lenses and is closely associated with boulder clay which may be very sandy in part.<br>(Estimated resource depth 7.6m) |  |
| <b>Assessment of resource for the second consultation on MLP (Autumn 2013)</b>       |  |  |
| <b>Commentary:</b>   | A small resource area intersected by a road through the centre of the area. The deposit extends outside of the County into Warwickshire (labelled OUT on the figure above).  |  |
| <b>Crude estimate of resource:</b>   | Area: 21ha x average depth: 7.6 m ÷ 2<br>Estimated resource volume: 798,000 m <sup>3</sup><br><b>Estimated resource tonnage (at 2 t/m<sup>3</sup>): 1,596,000 tonnes</b>   |  |
| <b>Conclusion:</b>   | Significant.<br>Consider in defining areas of search.  |  |
| <b>Assessment of resource for the Third Stage consultation on MLP (Spring 2015)</b>  |  |  |
| <b>Revised estimate of resource:</b>   | Area: 21ha x average depth: 7.6 m ÷ 2<br>Estimated resource volume: 798,000 m <sup>3</sup><br><b>Estimated resource tonnage (at 1.65 t/m<sup>3</sup>): 1,316,700 tonnes</b>  |  |
| <b>Conclusion:</b>   | Significant.   |  |
| <b>Assessment of resource for the Fourth Stage consultation on MLP (August 2018)</b> |  |  |
| This resource area has been split into areas 14/2 and 14/2b.                         |  |  |
| <b>Resource area 14/2</b>  | <b>Resource area 14/2b</b>   |  |

|  |   |                            |  |
|--|---|----------------------------|--|
| <b>Resource area:</b>  | 19 ha   | <b>Commentary:</b>         | Screened out due to the following appendix A criterion:<br>- Listed Buildings<br>- Settlement boundary |
| <b>Resource depth:</b>   | Estimated 7.6m  |                            |  |
| <b>Revised estimate of resource:</b>   | Area: 19 ha x average depth: 7.6m ÷ 2<br>Estimated resource volume: 722,000 m <sup>3</sup><br><b>Estimated resource tonnage (at 1.65 t/m<sup>3</sup>): 1,191,300 tonnes</b> |                            |  |
| <b>Conclusion:</b>   | Significant resource  | <b>Conclusion:</b>         | Compromised  |
| <b>Assessment of resource for the Fourth Stage consultation on MLP (November 2018)</b> |   |                            |  |
| This resource area has been split into areas 14/2 and 14/2c.                           |   |                            |  |
| <b>Resource area 14/2</b>  |   | <b>Resource area 14/2c</b> |  |
| <b>Resource area:</b>  | 19 ha   | <b>Commentary:</b>         | Screened out due to the following appendix A criterion:<br>- Scheduled Ancient Monument                |
| <b>Resource depth:</b>   | Estimated 7.6m  |                            |  |
| <b>Revised estimate of resource:</b>   | Area: 19 ha x average depth: 7.6m ÷ 2<br>Estimated resource volume: 646,000 m <sup>3</sup><br><b>Estimated resource tonnage (at 1.65 t/m<sup>3</sup>): 1,065,900 tonnes</b> |                            |  |
| <b>Conclusion:</b>   | Significant resource  | <b>Conclusion:</b>         | Compromised  |

|  |   |                            |  |
|--|---|----------------------------|--|
| <b>Overview</b>  |   |                            |  |
| <b>Resource number:</b>  | 14/3  |                            |  |
| <b>Resource name:</b>  | North of Abbots Morton  |                            |  |
| <b>Resource area:</b>  | 71ha  |                            |  |
| <b>Resource depth:</b>   | Not known   |                            |  |
| <b>Location</b>  |   |                            |  |
| <b>OS sheet reference:</b>   | SO 05 NW, SO 05 SW  |                            |  |
| <b>National grid ref:</b>  | 403461, 255638  |                            |  |
| <b>Resource description:</b>   |   |                            |  |
| <b>Resource description:</b>   | 1 <sup>st</sup> terrace (Bretford) sand and gravel. The terrace deposits generally comprise gravel to sand grade material which may be silty and clayey in part. No information on thicknesses is available in the BGS memoirs. |                            |  |
| <b>Assessment of resource for the second consultation on MLP (Autumn 2013)</b>       |   |                            |  |
| <b>Commentary:</b>   | A medium-sized deposit with limited built development.  |                            |  |
| <b>Crude estimate of resource:</b>   | Depth not known   |                            |  |
| <b>Conclusion:</b>   | Significant.<br>Consider in defining areas of search.   |                            |  |
| <b>Assessment of resource for the Third Stage consultation on MLP (Spring 2015)</b>  |   |                            |  |
| <b>Revised estimate of resource:</b>   | No change to the assessment.  |                            |  |
| <b>Conclusion:</b>   | Significant.  |                            |  |
| <b>Assessment of resource for the Fourth Stage consultation on MLP (August 2018)</b> |   |                            |  |
| This resource area has been split into areas 14/3 and 14/3b.                         |   |                            |  |
| <b>Resource area 14/3</b>  |   | <b>Resource area 14/3b</b> |  |
| <b>Resource area:</b>  | 70 ha   | <b>Commentary:</b>         | Screened out due to the following appendix A criterion:<br>- Ancient Semi-Natural Woodland |
| <b>Resource depth:</b>   | Depth not known   |                            |  |
| <b>Revised estimate of resource:</b>   | Depth not known   |                            |  |

|                    |                      |                    |             |
|--------------------|----------------------|--------------------|-------------|
| <b>Conclusion:</b> | Significant resource | <b>Conclusion:</b> | Compromised |
|--------------------|----------------------|--------------------|-------------|

|   |  |  |
|---|--|--|
| <b>Overview</b>   |  |  |
| <b>Resource number:</b>   | 14/4   |  |
| <b>Resource name:</b>   | North of Astwood Bank  |  |
| <b>Resource area:</b>   | 8ha remaining  |  |
| <b>Resource depth:</b>  | Not known  |  |
| <b>Location</b>   |  |  |
| <b>OS sheet reference:</b>  | SO 06 SW   |  |
| <b>National grid ref:</b>   | 404170, 262958   |  |
| <b>Resource description:</b>  |  |  |
| <b>Resource description:</b>  | Glaciofluvial sand and gravel. The sand and gravel is commonly interdigitated with boulder clay, restricting the value of the potential resource although there have been many small scale workings. No information on thicknesses available.  |  |
| <b>Assessment of resource for the second consultation on MLP (Autumn 2013)</b>                            |  |  |
| <b>Commentary:</b>  | A small resource area with some small scale development. The deposit extends under the village of Astwood Bank, this is considered separately as resource area 14/1a, and 8ha remain to the north of the village. The deposit also continues to the south of Astwood Bank village and this is considered as a separate resource area (14/1) as it is separated by over 500m. |  |
| <b>Crude estimate of resource:</b>  | Depth not known  |  |
| <b>Conclusion:</b>  | Compromised by development with less than 10ha of the deposit remaining.   |  |
| <b>Assessment of resource for the Third Stage consultation on MLP (Spring 2015)</b>                       |  |  |
| <b>Revised estimate of resource:</b>  | No change to the assessment.   |  |
| <b>Conclusion:</b>  | Compromised by development.  |  |
| <b>Assessment of resource for the Fourth Stage consultation on MLP (August 2018)</b>                      |  |  |
| Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation |  |  |