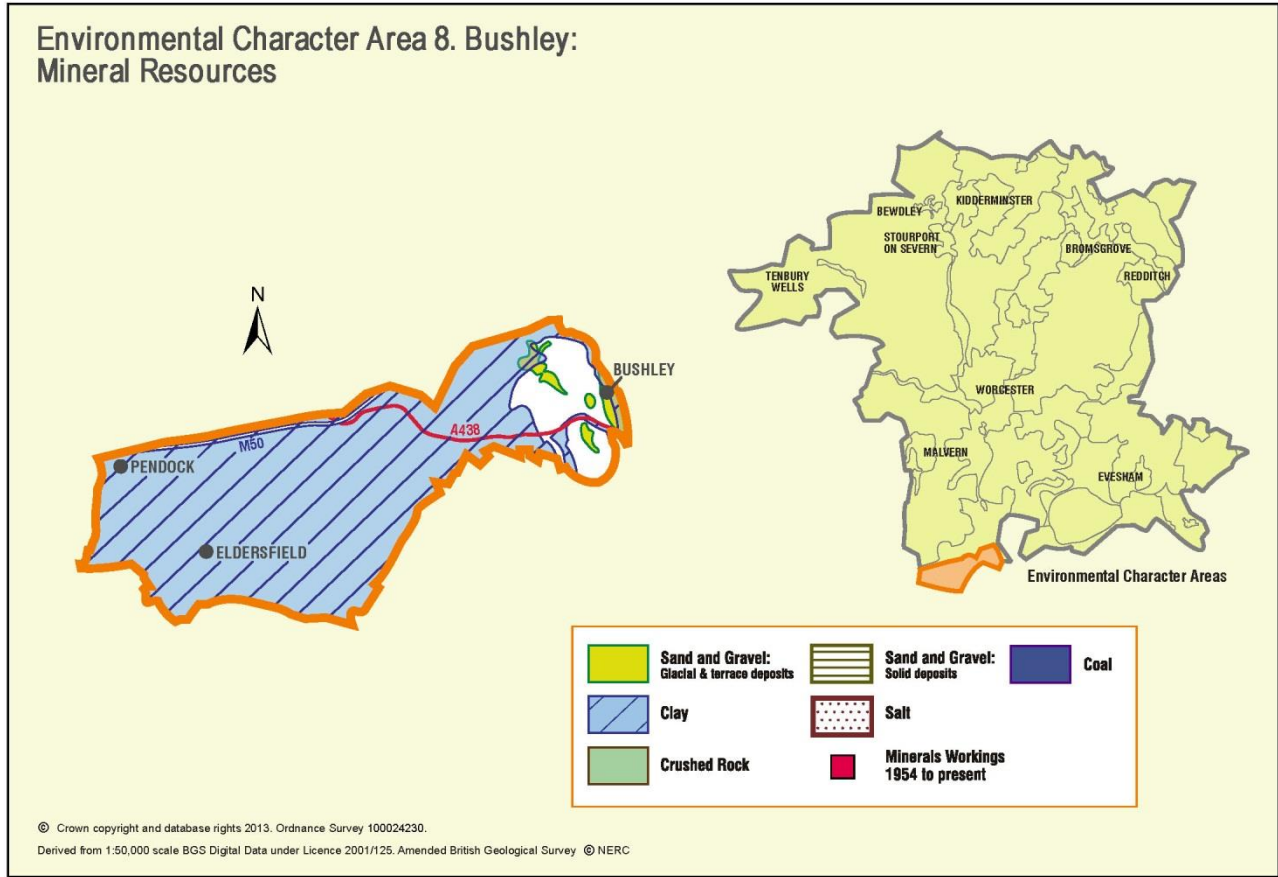


Appendix 8: Analysis of aggregate resources in ECA 8: Bushley



ECA Summary for the Third Stage consultation on MLP (Spring 2015):

Sand and gravel

There are 2 resource areas identified for sand and gravel in Bushley ECA:

- Key: 1
- Significant: 1

Crushed rock

There are no resource areas identified in Bushley ECA for crushed rock.

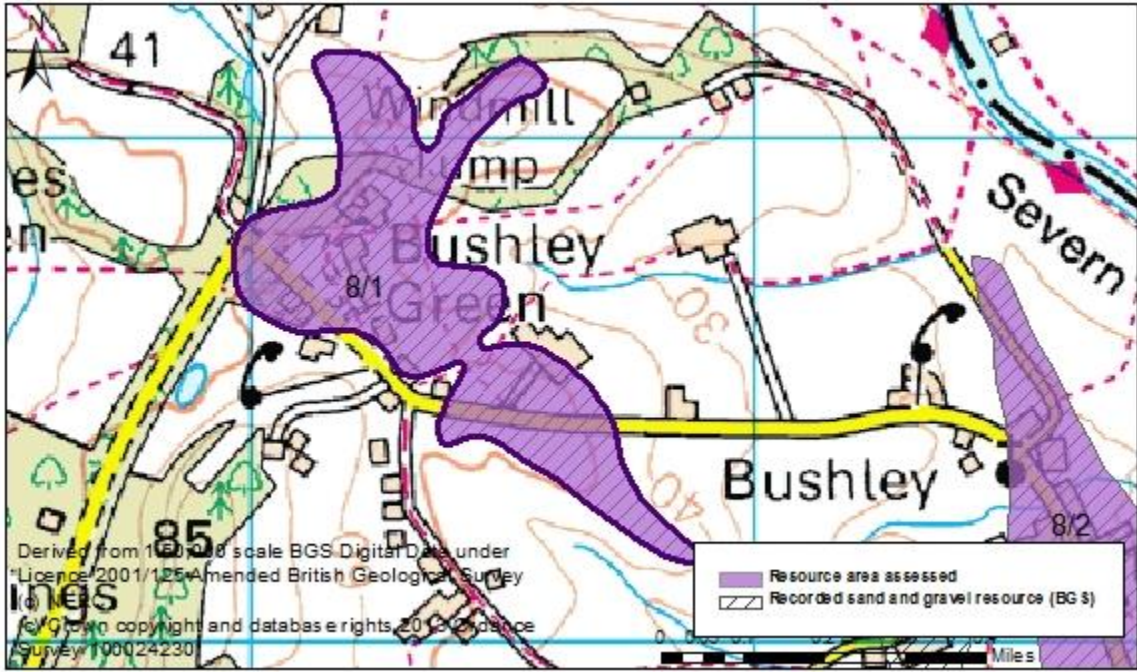
Non-aggregates

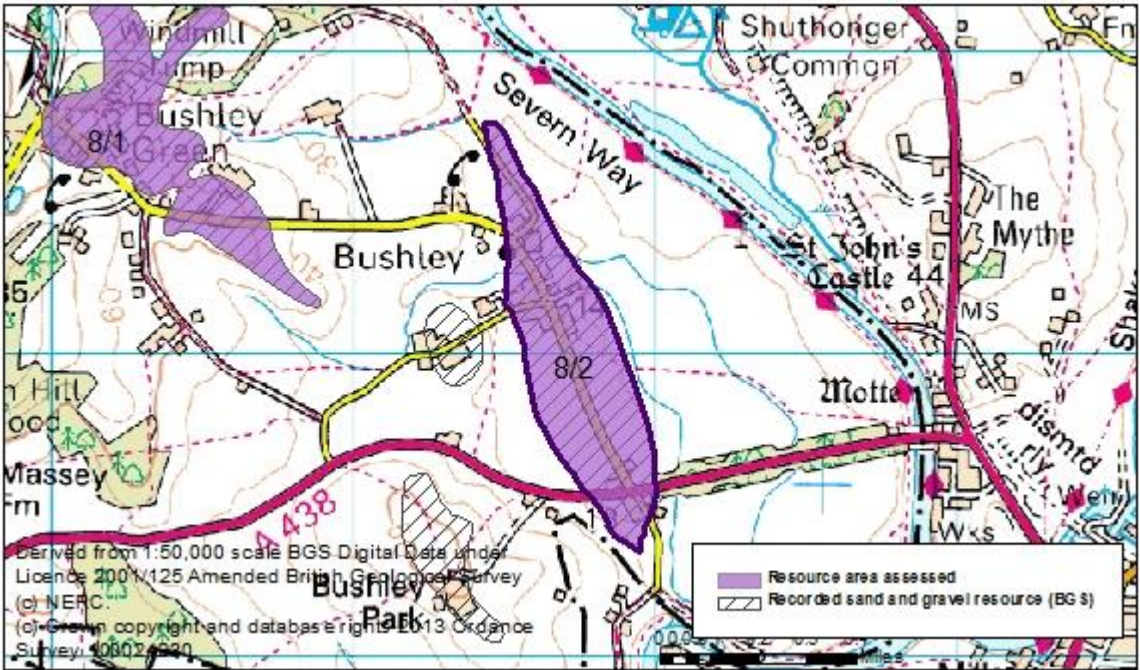
BGS data indicates that there are deposits of clay in this ECA.

Overview of resource assessment for ECA 8

Sand and gravel resource areas:

Resource number*	Second Stage Consultation		Third Stage Consultation	
	Original estimated resource tonnage (2 tonnes/m ³)	Significance	Revised estimate of resource tonnage (1.65 tonnes/m ³)	Significance
8/1	2,666,000	Key	2,199,450	Key
8/2	640,000	Significant	528,000	→ Not significant

Overview	
Resource number:	8/1
Resource name:	Bushley Green
Resource area:	28
Resource depth:	Estimated 9.5m
Location	
OS sheet reference:	SO 83 SE
National grid ref:	386359, 233981
 <p>The map shows the Bushley Green area with a purple shaded region indicating the resource area assessed. A hatched area within this region represents recorded sand and gravel resources. The map includes the Severn river to the east, a road network, and various geographical features. A legend in the bottom right corner identifies the purple area as 'Resource area assessed' and the hatched area as 'Recorded sand and gravel resource (BGS)'. Text on the map includes 'Derived from 1:25,000 scale BGS Digital Data under Licence 2001/125 Amended British Geological Survey' and '© Crown copyright and database rights 2013 Ordnance Survey 100024230'. Grid lines for 41, 85, and 8/1 are visible.</p>	
Resource description:	
Resource description:	5 th to 6 th terrace sand and gravel. An old pit at Bushley Green indicates a thickness of at least 9.45m. The composition of the gravel varies from rounded quartzite to Malvernian pebbles. The available evidence suggests that a thickness and composition may be very variable and consequently any future investigation would need to be detailed. (Estimated resource depth based on exposure of depth at Bushley Green this is rounded to 9.5m)
Assessment of resource for the second consultation on MLP (Autumn 2013)	
Commentary:	A small deposit partially compromised by a small-scale ribbon development in the west of the resource area.
Crude estimate of resource:	Area: 28ha x average depth: 9.5m / 2 Estimated resource volume: 1,333,000m ³ . Estimated resource tonnage (at 2 t/m³): 2,666,000 tonnes
Conclusion:	Significant – key resource. Use to define areas of search.
Assessment of resource for the Third Stage consultation on MLP (Spring 2015)	
Revised estimate of resource:	Area: 28ha x average depth: 9.5m / 2 Estimated resource volume: 1,333,000m ³ . Estimated resource tonnage (at 1.65 t/m³): 2,199,450 tonnes
Conclusion:	Significant – key resource.

Overview	
Resource number:	8/2
Resource name:	Bushley
Resource area:	32 ha
Resource depth:	Estimated 2m
Location	
OS sheet reference:	SO 83 SE
National grid ref:	387727, 233981
	
Resource description:	
Resource description:	3rd terrace (Holt Heath) sand and gravel. There are no exposures but at the surface gravel with bunter pebbles is present. The deposits are mainly well sorted, well rounded pebbly sands. At Bushley, the memoir states that it is difficult to estimate thickness but that 1-3m would appear reasonable. (Estimated resource depth based on median depth of 2m)
Assessment of resource for the second consultation on MLP (Autumn 2013)	
Commentary:	A small deposit with a small-scale settlement in the northern end of the resource area and scattered development throughout.
Crude estimate of resource:	Area: 32 ha x average depth: 2m x 0.5 Estimated resource volume: 320,000m ³ Estimated resource tonnage (at 2 t/m³): 640,000 tonnes.
Conclusion:	Significant. Consider in defining areas of search.
Assessment of resource for the Third Stage consultation on MLP (Spring 2015)	
Revised estimate of resource:	Area: 32 ha x average depth: 2m x 0.5 Estimated resource volume: 320,000m ³ Estimated resource tonnage (at 1.65 t/m³): 528,000 tonnes
Conclusion:	Change to conclusion: Not significant.