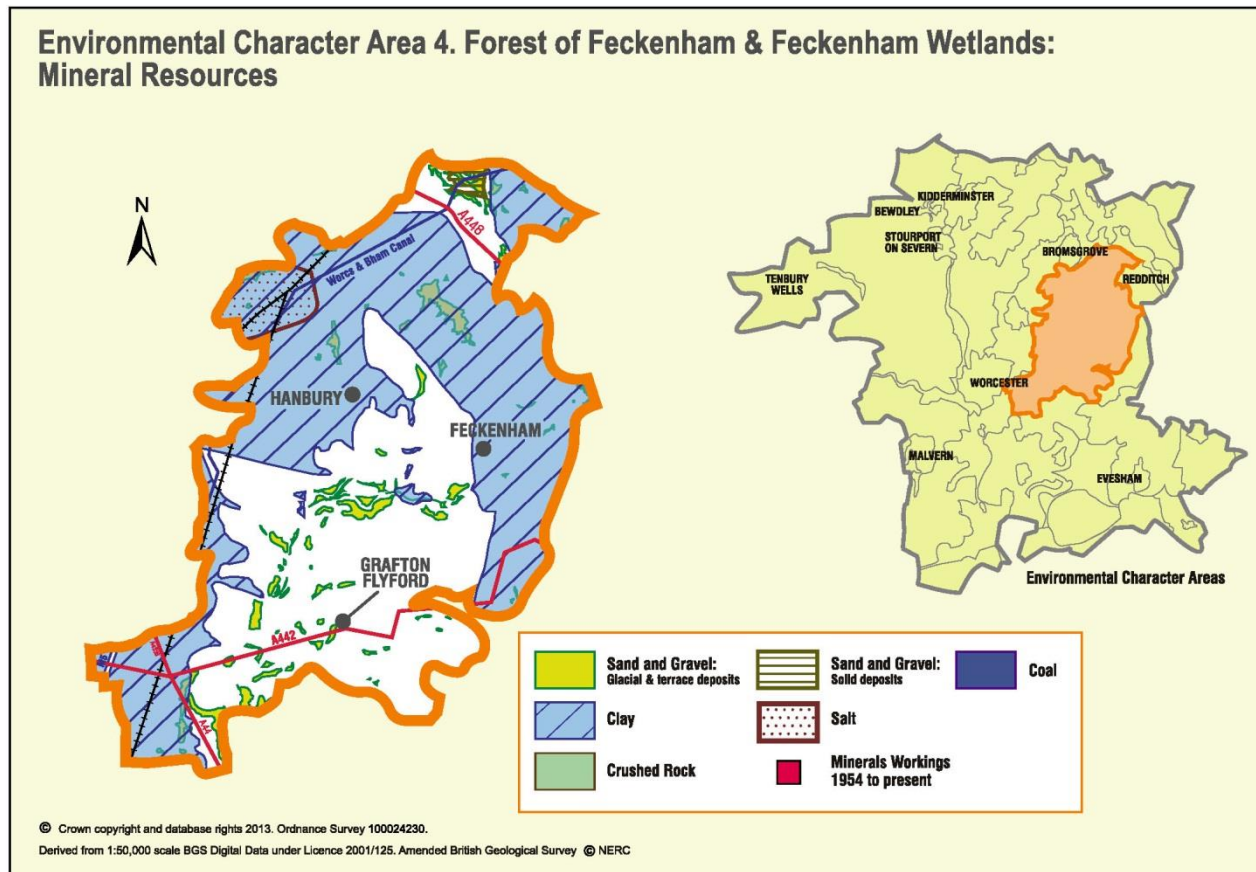


Appendix 4: Analysis of aggregate resources in ECA 4: Forest of Feckenham & Feckenham Wetlands



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

Sand and gravel

There are 28 resource areas identified for sand and gravel in Forest of Feckenham and Feckenham Wetlands ECA:

- Key: 2
- Significant: 1
- Not significant: 20
- Compromised: 5

Crushed rock

There are no resource areas identified in Forest of Feckenham and Feckenham Wetlands ECA for crushed rock.

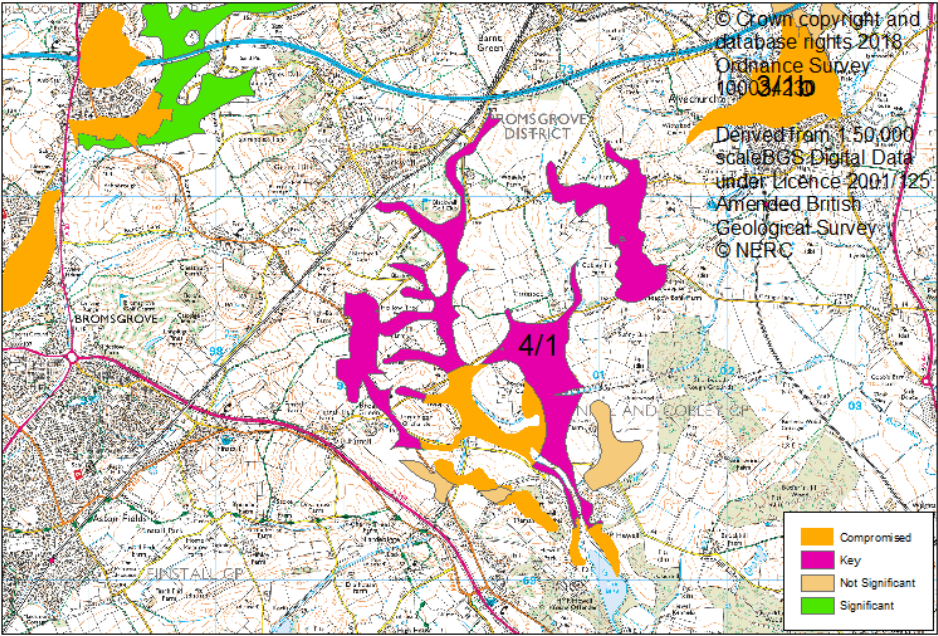
Non-aggregates

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

Overview of resource assessment for ECA 4

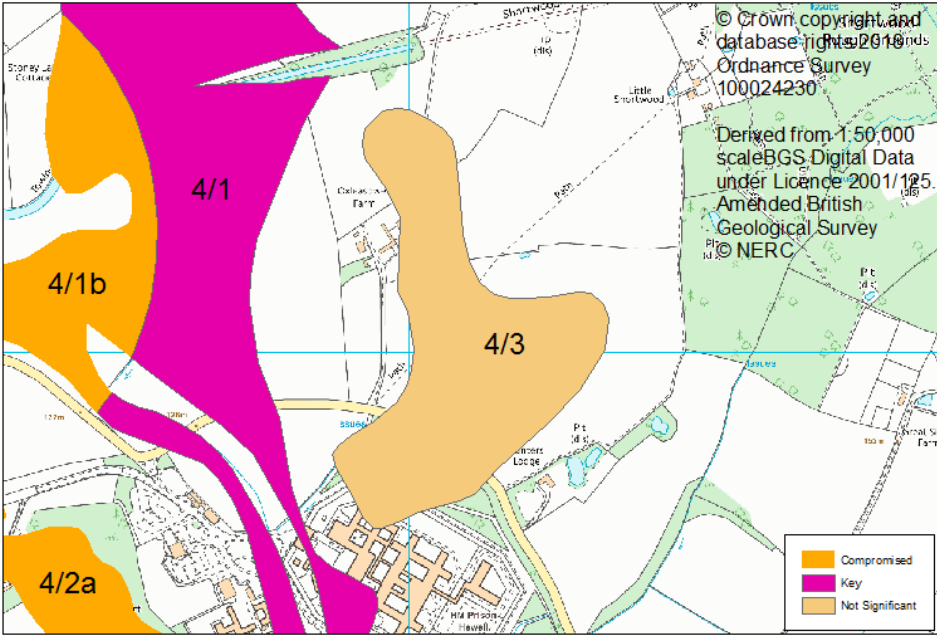
Sand and gravel resource areas:

Resource number*	Second Stage Consultation		Third Stage Consultation		Fourth Stage Consultation		
	Original estimated resource tonnage (2 tonnes/m ³)	Significance	Revised estimate of resource tonnage (1.65 tonnes/m ³)	Significance	New resource number (where resource has been split)	Revised estimate of resource tonnage (1.65 tonnes/m ³)	Significance
4/1	5,217,000	Key	4,304,025	Key	4/1	3,296,700	Key
					4/1b		Compromised
4/2	360,000	Not significant	297,000	Not significant	Not reassessed		
4/3	300,000	Not significant	247,500	Not significant			
4/4	621,000	Compromised	512,325	Compromised			
4/5	11,400,000	Key	9,405,000	Key	4/5	9,075,000	Key
					4/5b		Compromised
					4/5c		Compromised
4/6	700,000	Significant	577,500	→ Not significant	Not reassessed		
4/7	1,050,000	Significant	866,250	Significant	4/7	536,250	Not significant
					4/7b		Compromised
4/8	400,000	Not significant	330,000	Not significant	Not reassessed		
4/9	440,000	Not significant	363,000	Not significant			
4/10	280,000	Not significant	231,000	Not significant			
4/11	220,000	Not significant	181,500	Not significant			
4/12	280,000	Not significant	231,000	Not significant			
4/13	1,080,000	Significant	891,000	Significant	4/13	858,000	Significant
					4/13b		Compromised
4/14	300,000	Not significant	247,500	Not significant	Not reassessed		
4/15	300,000	Not significant	247,500	Not significant			
4/16	340,000	Not significant	280,500	Not significant			
4/17	640,000	Significant	528,000	→ Not significant			
4/18	220,000	Not significant	181,500	Not significant			
4/19	260,000	Not significant	214,500	Not significant			
4/20	260,000	Not significant	214,500	Not significant			
4/21	520,000	Not significant	429,000	Not significant			
4/22	400,000	Not significant	330,000	Not significant			
4/23	520,000	Not significant	429,000	Not significant			
4/24	300,000	Not significant	247,500	Not significant			

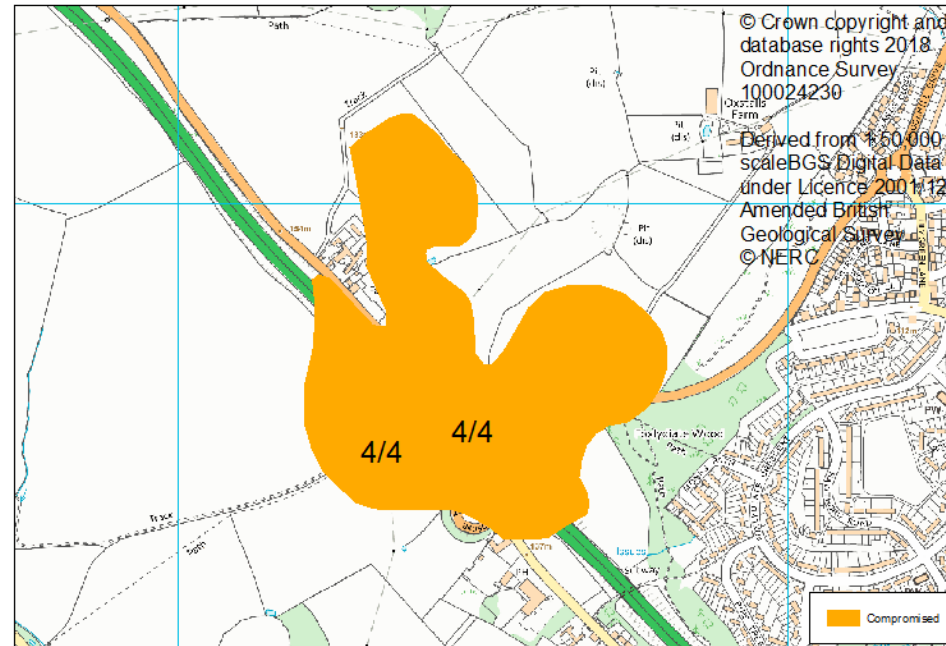
Overview	
Resource number:	4/1
Resource name:	Brockhill to Blackwell
Resource area:	141ha
Resource depth:	Estimated 3.7m
Location	
OS sheet reference:	SO 07 SW, SO 06 NW, SO 97 SE, SO 97 SW
National grid ref:	40038, 270692
	
Resource description:	
Resource description:	<p>Resource area 4.1 is alluvial fan sand and gravel. This is underlain by solid sand deposits which are assessed as resource area 12/8. The BGS memoir states that a deposit has been worked in a small pit east of Cattespool, now flooded, where 4.6m of coarse gravel with seams of sand were recorded. A borehole at the waterworks recorded 4m of sand and gravel and a well 100m east of this recorded 2.4m of sand and gravel on Wildmoor sandstone.</p> <p>The area of deposit near HM Prison Hewell (near Brockhill, at the south of the resource area) is described as limited in extent and generally thin.</p> <p>(Estimated resource depth based on mean average of: a) pit east of Cattespool: 4.6m, b) Borehole at waterworks: 4m and c) well east of borehole: 2.4m = 3.7m)</p>
Assessment of resource for the second consultation on MLP (Autumn 2013)	
Commentary:	A large resource area intersected by roads and built development.
Crude estimate of resource:	<p>Area: 141 ha x average depth: 3.7 m ÷ 2</p> <p>Estimated resource volume: 2,608,500 m³</p> <p>Estimated resource tonnage (at 2 t/m³): 5,217,000 tonnes</p>
Conclusion:	<p>Significant – key resource.</p> <p>Use to define areas of search.</p>
Assessment of resource for the Third Stage consultation on MLP (Spring 2015)	
Revised estimate of resource:	<p>Area: 141 ha x average depth: 3.7 m ÷ 2</p> <p>Estimated resource volume: 2,608,500 m³</p>

Estimated resource tonnage (at 1.65 t/m³): 4,304,025 tonnes			
Conclusion:		Significant – key resource.	
Assessment of resource for the Fourth Stage consultation on MLP (August 2018)			
This resource area has been split into areas 4/1 and 4/1b.			
Resource area 4/1		Resource area 4/1b	
Resource area:	108ha	Commentary:	Screened out due to the following appendix A criterion: <ul style="list-style-type: none"> - Conservation Area - Listed Building - Registered Park and Garden - Source Protection Zone
Resource depth:	3.7m		
Revised estimate of resource:	Area: 108ha x average depth: 3.7m ÷ 2 Estimated resource volume: 1,998,000m ³ Estimated resource tonnage (at 1.65 t/m³): 3,296,700 tonnes		
Conclusion:	Key resource.	Conclusion:	Compromised

Overview	
Resource number:	4/2
Resource name:	South of Brockhill Lane
Resource area:	18ha
Resource depth:	Estimated 2m
Location	
OS sheet reference:	SO 06 NW, SO 06 NE
National grid ref:	400073, 269713
Resource description:	
Resource description:	Glaciofluvial sand and gravel. The BGS memoir states that, in this geological district, this type of deposit is likely to be between 1m and 3m. (Estimated resource depth based on average of depths in memoirs of 2m).
Assessment of resource for the second consultation on MLP (Autumn 2013)	
Commentary:	A small resource area intersected by roads and dispersed development
Crude estimate of resource:	Area: 18 ha x average depth: 2 m ÷ 2 Estimated resource volume: 180,000 m ³ Estimated resource tonnage (at 2 t/m³): 360,000 tonnes
Conclusion:	Not significant: Small deposit with less than 300,000m ³ . Not for consideration in defining areas of search.
Assessment of resource for the Third Stage consultation on MLP (Spring 2015)	
Revised estimate of resource:	Area: 18 ha x average depth: 2 m ÷ 2 Estimated resource volume: 180,000 m ³ Estimated resource tonnage (at 1.65 t/m³): 297,000 tonnes
Conclusion:	Not significant.
Assessment of resource for the Fourth Stage consultation on MLP (August 2018)	
Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation.	

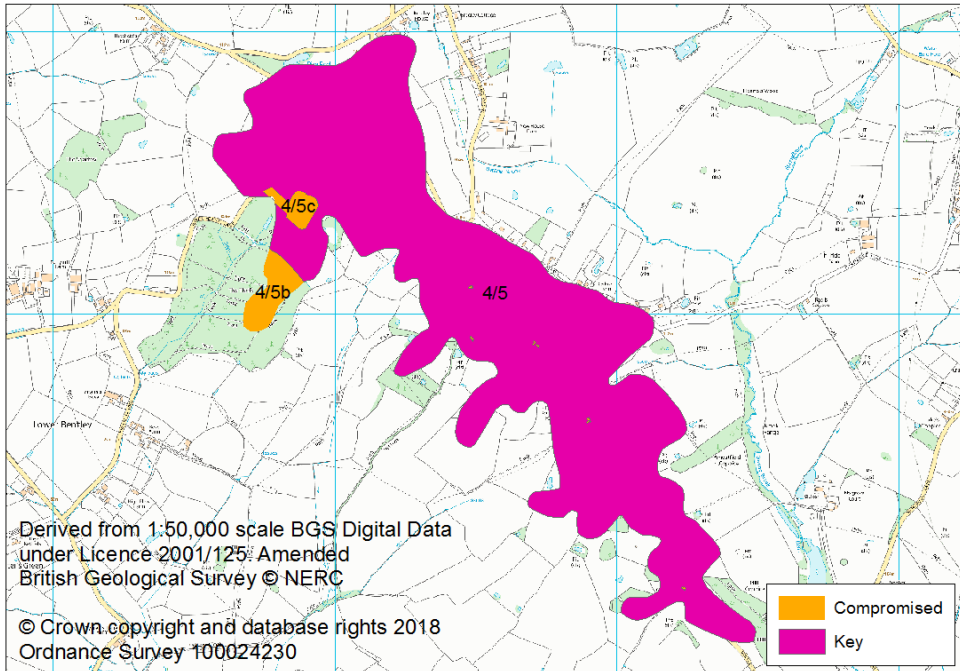
Overview	
Resource number:	4/3
Resource name:	North of HM Prison Hewell
Resource area:	15ha
Resource depth:	Estimated 2m
Location	
OS sheet reference:	SO 06 NW, SO 07 SW
National grid ref:	401081, 270012
	
Resource description:	
Resource description:	Alluvial fan sand and gravel. The area of deposit near HM Prison Hewell is described as limited in extent and generally thin, generally between 1m and 3m in this geological district. (Estimated resource depth based on average of depths in memoirs of 2m).
Assessment of resource for the second consultation on MLP (Autumn 2013)	
Commentary:	A small resource area with little built development.
Crude estimate of resource:	Area: 15 ha x average depth: 2 m ÷ 2 Estimated resource volume: 150,000 m ³ Estimated resource tonnage (at 2 t/m³): 300,000 tonnes
Conclusion:	Not significant: Small deposit with less than 300,000m ³ . Not for consideration in defining areas of search.
Assessment of resource for the Third Stage consultation on MLP (Spring 2015)	
Revised estimate of resource:	Area: 15 ha x average depth: 2 m ÷ 2 Estimated resource volume: 150,000 m ³ Estimated resource tonnage (at 1.65 t/m³): 247,500 tonnes
Conclusion:	Not significant.
Assessment of resource for the Fourth Stage consultation on MLP (August 2018)	
Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation.	

Overview	
Resource number:	4/4
Resource name:	Foxlydiate
Resource area:	23ha
Resource depth:	Estimated 2.7m
Location	
OS sheet reference:	SO 06 NW
National grid ref:	401467, 267740



Resource description:	
Resource description:	<p>Glaciofluvial sand and gravel. The deposit has been worked in a former gravel pit, now built over by the dual carriageway, to a depth of 7.6m where clean sand with gravel and beds of silt and stoney clay were exposed. A disused sandpit north east of Tack Farm exposes 1m of sand. A borehole in the centre of the dual carriageway on the edge of the exposed deposit recorded 3.2m of clayey sand overlain by boulder clay, a further borehole recorded 2.14m of sand and gravel on boulder clay overlain by 0.76m of boulder clay.</p> <p>Investigations by DK Sykes Assoc supplied to the County Council in December 2011 showed that the majority of the superficial deposit in the north west of the site comprised boulder clay with occasional pockets of sand, which was fine in grain size and silty. The sand was thin (around 1.3-1.4m) and was proven to be underlain by Bromsgrove Sandstone. The fine nature and amount of silt was interpreted to make this 'sand' unusable other than for bulk fill / low quality purposes and then it is likely to be too variable. The shallow thickness, limited extent and the presence of overburden led to the report ruling out this part of the deposit from being viable. To the south east of a pipeline the material was interpreted to be of poor quality due to low percentages of gravel, and the amount of silt and clay present. The thickness of the deposit in this area averaged around 1m. The Council considered the resource to be uneconomic to justify objecting to a proposed housing land allocation.</p> <p>(Average depth calculated as average of: a) former gravel pit 7.6m b) sandpit north East of Tack Farm: 1m c) Borehole in centre of dual carriageway: 3.2m d) further borehole: 2.14m e) DK Sykes Assoc investigations: 1.35m f) results south east of pipeline: 1m = 2.7m)</p>

Assessment of resource for the second consultation on MLP (Autumn 2013)	
Commentary:	A small resource area compromised by highway development.
Crude estimate of resource:	Area: 23 ha x average depth: 2.7 m ÷ 2 Estimated resource volume: 310,500 m ³ Estimated resource tonnage (at 2 t/m³): 621,000 tonnes
Conclusion:	Compromised by development with less than 10ha of the deposit remaining.
Assessment of resource for the Third Stage consultation on MLP (Spring 2015)	
Revised estimate of resource:	Area: 23 ha x average depth: 2.7 m ÷ 2 Estimated resource volume: 310,500 m ³ Estimated resource tonnage (at 1.65 t/m³): 512,325 tonnes
Conclusion:	Compromised by development.
Assessment of resource for the Fourth Stage consultation on MLP (August 2018)	
Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation.	

Overview	
Resource number:	4/5
Resource name:	The Bentleys
Resource area:	114ha
Resource depth:	Estimated 10m
Location	
OS sheet reference:	SO 96 NE, SO 96 NW, SO 06 SW
National grid ref:	399492, 266032
	
Resource description:	
Resource description:	Glaciofluvial sand and gravel. The deposit varies from brown to red sand and is very pebbly in places. The BGS memoirs show that the deposit is thought to be up to 10m thick, although no details of boreholes or exposures are given. (Average depth based on BGS memoirs: 10m)
Assessment of resource for the second consultation on MLP (Autumn 2013)	
Commentary:	A medium-sized resource area intersected by roads with some ribbon development.
Crude estimate of resource:	Area: 114 ha x average depth: 10 m ÷ 2 Estimated resource volume: 5,700,000 m ³ Estimated resource tonnage (at 2 t/m³): 11,400,000 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: 114 ha x average depth: 10 m ÷ 2 Estimated resource volume: 5,700,000 m ³ Estimated resource tonnage (at 1.65 t/m³): 9,405,000 tonnes
Conclusion:	Significant – key resource.
Assessment of resource for the Fourth Stage consultation on MLP (August 2018)	
This resource area has been split into areas 4/5 and 4/5b.	
Resource area 4/5	Resource area 4/5b

Resource area:	111ha	Commentary:	Screened out due to the following appendix A criterion: <ul style="list-style-type: none"> - Ancient Semi-Natural Woodland - Listed Building - Scheduled Ancient Monument
Resource depth:	10m		
Revised estimate of resource:	Area: 111ha x average depth: 10 m ÷ 2 Estimated resource volume: 5,550,000m ³ Estimated resource tonnage (at 1.65 t/m³): 9,157,500 tonnes		
Conclusion:	Key resource.	Conclusion:	Compromised
Assessment of resource for the Fourth Stage consultation on MLP (November 2018)			
This resource area has been split into areas 4/5 and 4/5c.			
Resource area 4/5		Resource area 4/5c	
Resource area:	110 ha	Commentary:	Screened out due to the following appendix A criterion: <ul style="list-style-type: none"> - Scheduled Ancient Monument
Resource depth:	Estimated 10m		
Revised estimate of resource:	Area: 110 ha x average depth: 10m ÷ 2 Estimated resource volume: 5,500,000 m ³ Estimated resource tonnage (at 1.65 t/m³): 9,075,000 tonnes		
Conclusion:	Key resource	Conclusion:	Compromised

Overview	
Resource number:	4/6
Resource name:	West of Stoke Prior
Resource area:	14ha remaining
Resource depth:	Estimated 5m
Location	
OS sheet reference:	SO 96 NW
National grid ref:	393164, 267155
Resource description:	
Resource description:	3 rd terrace (Holt Heath) sand and gravel. A former pit at Upton Warren was worked to a depth of approximately 5m. (Average depth based on depths at Upton Warren: 5m)
Assessment of resource for the second consultation on MLP (Autumn 2013)	
Commentary:	A small resource area, split into two parts. The deposit has been extensively worked, this is not included as part of the resource area and 14ha remain.
Crude estimate of resource:	Area: 14 ha x average depth: 5 m ÷ 2 Estimated resource volume: 350,000 m ³ Estimated resource tonnage (at 2 t/m³): 700,000 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: 14 ha x average depth: 5 m ÷ 2 Estimated resource volume: 350,000 m ³ Estimated resource tonnage (at 1.65 t/m³): 577,500 tonnes
Conclusion:	Change to conclusion: Not significant.
Assessment of resource for the Fourth Stage consultation on MLP (August 2018)	
Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation.	

Overview		
Resource number:	4/7	
Resource name:	Piper's Hill	
Resource area:	21ha	
Resource depth:	Estimated 5m	
Location		
OS sheet reference:	SO 96 NE, SO 96 SE	
National grid ref:	395887, 264891	
Resource description:		
Resource description:	Glaciofluvial sand and gravel. Red to orange-brown clayey sand and gravel, up to 5m thick. The sand and gravel is overlain by a small patch of boulder clay. (Average depth based on BGS memoirs: 5m)	
Assessment of resource for the second consultation on MLP (Autumn 2013)		
Commentary:	A small resource area intersected by a road with some ribbon development.	
Crude estimate of resource:	Area: 21 ha x average depth: 5 m ÷ 2 Estimated resource volume: 525,000 m ³ Estimated resource tonnage (at 2 t/m³): 1,050,000 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: 21 ha x average depth: 5 m ÷ 2 Estimated resource volume: 525,000 m ³ Estimated resource tonnage (at 1.65 t/m³): 866,250 tonnes	
Conclusion:	Significant.	
Assessment of resource for the Fourth Stage consultation on MLP (August 2018)		
This resource area has been split into areas 8/7 and 8/7b.		
Resource area 8/7		Resource area 8/7b
Resource area:	13ha	Commentary: Screened out due to the following appendix A

Resource depth:	5m		criterion: <ul style="list-style-type: none"> - Ancient Semi-Natural Woodland - Listed Building - Site of Special Scientific Interest
Revised estimate of resource:	Area: 13ha x average depth: 8m ÷ 2 Estimated resource volume: 325,000m ³ Estimated resource tonnage (at 1.65 t/m³): 536,250 tonnes		
Conclusion:	Not significant.	Conclusion:	Compromised

Overview	
Resource number:	4/8
Resource name:	Ditchford Bank
Resource area:	20ha
Resource depth:	Estimated 2m
Location	
OS sheet reference:	SO 96 SE
National grid ref:	398695, 263679
Resource description:	
Resource description:	1 st terrace sand and gravel. The gravels are clayey and the BGS memoirs estimate that they are probably not more than 2m thick. (Average depth based on BGS memoirs: 2m)
Assessment of resource for the second consultation on MLP (Autumn 2013)	
Commentary:	A small resource area with some built development.
Crude estimate of resource:	Area: 20 ha x average depth: 2 m ÷ 2 Estimated resource volume: 200,000 m ³ Estimated resource tonnage (at 2 t/m³): 400,000 tonnes
Conclusion:	Not significant: Small deposit with less than 300,000m ³ . Not for consideration in defining areas of search.
Assessment of resource for the Third Stage consultation on MLP (Spring 2015)	
Revised estimate of resource:	Area: 20 ha x average depth: 2 m ÷ 2 Estimated resource volume: 200,000 m ³ Estimated resource tonnage (at 1.65 t/m³): 330,000 tonnes
Conclusion:	Not significant.
Assessment of resource for the Fourth Stage consultation on MLP (August 2018)	
Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation.	

Overview		
Resource number:	4/9	
Resource name:	Priest Bridge	
Resource area:	22ha	
Resource depth:	Estimated 2m	
Location		
OS sheet reference:	SO 96 SE, SO 06 SW, SO 95 NE	
National grid ref:	399843, 260133	
Resource description:		
Resource description:	<p>1st terrace sand and gravel. The deposit is of variable lithology, and deposits flanking the Bow Brook tend to be clayey and consist mostly of sand with very little gravel. The BGS memoir states that there is a suite of five terraces in the valley of the Bow Brook. The Bow Brook is part of the River Avon drainage basin and the two sets of terraces (Bow Brook and Avon) are correlated. All of the Bow Brook terrace deposits are estimated to be up to 2m thick.</p> <p>There is no more detailed local information on depths available. (Average depth based on BGS memoirs: 2m)</p>	
Assessment of resource for the second consultation on MLP (Autumn 2013)		
Commentary:	A small resource area with no built development.	
Crude estimate of resource:	Area: 22 ha x average depth: 2m ÷ 2 Estimated resource volume: 220,000 m ³ Estimated resource tonnage (at 2 t/m³): 440,000 tonnes	
Conclusion:	Not significant: Small deposit with less than 300,000m ³ . Not for consideration in defining areas of search.	
Assessment of resource for the Third Stage consultation on MLP (Spring 2015)		
Revised estimate of resource:	Area: 22 ha x average depth: 2m ÷ 2 Estimated resource volume: 220,000 m ³ Estimated resource tonnage (at 1.65 t/m³): 363,000 tonnes	
Conclusion:	Not significant.	

resource:	Estimated resource volume: 140,000 m ³ Estimated resource tonnage (at 1.65 t/m³): 231,000 tonnes
Conclusion:	Not significant.
Assessment of resource for the Fourth Stage consultation on MLP (August 2018)	
Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation.	

Overview	
Resource number:	4/11
Resource name:	Hollowfields Road
Resource area:	11ha
Resource depth:	Estimated 2m
Location	
OS sheet reference:	SO 95 NE
National grid ref:	397260, 260281
Resource description:	
Resource description:	1 st terrace sand and gravel. Deposits flanking the Bow Brook tend to be clayey and consist mostly of sand with very little gravel. The BGS memoir states that there is a suite of five terraces in the valley of the Bow Brook. The Bow Brook is part of the River Avon drainage basin and the two sets of terraces (Bow Brook and Avon) are correlated. All of the Bow Brook terrace deposits are estimated to be up to 2m thick. There is no more detailed local information on depths available. (Average depth based on BGS memoirs: 2m)
Assessment of resource for the second consultation on MLP (Autumn 2013)	
Commentary:	A small resource area intersected by roads.
Crude estimate of resource:	Area: 11 ha x average depth: 2 m ÷ 2 Estimated resource volume: 110,000 m ³ Estimated resource tonnage (at 2 t/m³): 220,000 tonnes
Conclusion:	Not significant: Small deposit with less than 300,000m ³ . Not for consideration in defining areas of search.
Assessment of resource for the Third Stage consultation on MLP (Spring 2015)	
Revised estimate of resource:	Area: 11 ha x average depth: 2 m ÷ 2 Estimated resource volume: 110,000 m ³ Estimated resource tonnage (at 1.65 t/m³): 181,500 tonnes
Conclusion:	Not significant.
Assessment of resource for the Fourth Stage consultation on MLP (August 2018)	

Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation.

Overview		
Resource number:	4/12	
Resource name:	Shell Brook Farm and Bishops Hall Farm	
Resource area:	14ha	
Resource depth:	Estimated 2m	
Location		
OS sheet reference:	SO 95 NE	
National grid ref:	396917, 259810	
Resource description:		
Resource description:	<p>1st terrace sand and gravel. Deposits flanking the Bow Brook tend to be clayey and consist mostly of sand with very little gravel. The BGS memoir states that there is a suite of five terraces in the valley of the Bow Brook. The Bow Brook is part of the River Avon drainage basin and the two sets of terraces (Bow Brook and Avon) are correlated. All of the Bow Brook terrace deposits are estimated to be up to 2m thick. There is no more detailed local information on depths available. (Average depth based on BGS memoirs: 2m)</p>	
Assessment of resource for the second consultation on MLP (Autumn 2013)		
Commentary:	A small resource area with a road running along the northern edge and small scale development on the periphery of the resource area.	
Crude estimate of resource:	<p>Area: 14 ha x average depth: 2 m ÷ 2 Estimated resource volume: 140,000 m³ Estimated resource tonnage (at 2 t/m³): 280,000 tonnes</p>	
Conclusion:	<p>Not significant: Small deposit with less than 300,000m³. Not for consideration in defining areas of search.</p>	
Assessment of resource for the Third Stage consultation on MLP (Spring 2015)		
Revised estimate of resource:	<p>Area: 14 ha x average depth: 2 m ÷ 2 Estimated resource volume: 140,000 m³</p>	

Estimated resource tonnage (at 1.65 t/m³): 231,000 tonnes

Conclusion: Not significant.

Assessment of resource for the Fourth Stage consultation on MLP (August 2018)

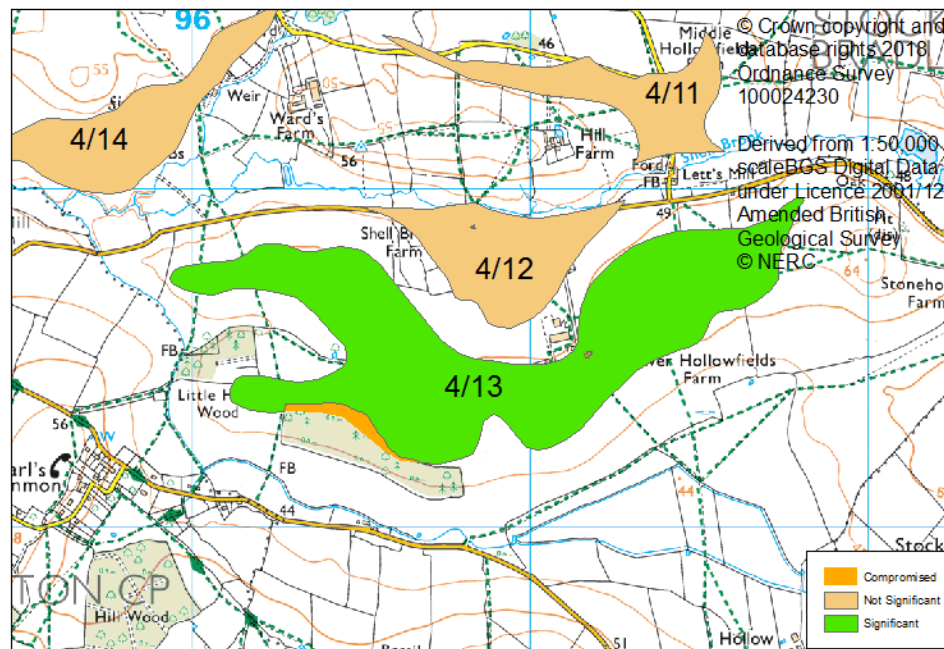
Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation.

Overview

Resource number: 4/13
Resource name: Digging Wood
Resource area: 54ha
Resource depth: Estimated 2m

Location

OS sheet reference: SO 95 NE
National grid ref: 396889, 259560



Resource description:

Resource description: 2nd terrace sand and gravel. The deposit, poorly exposed in ditches, is a red to orange-brown clayey, pebbly sand. The BGS memoir states that there is a suite of five terraces in the valley of the Bow Brook. The Bow Brook is part of the River Avon drainage basin and the two sets of terraces (Bow Brook and Avon) are correlated. All of the Bow Brook terrace deposits are estimated to be up to 2m thick. There is no more detailed local information on depths available.

(Average depth based on BGS memoirs: 2m)

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A small resource area with little built development.

Crude estimate of resource: Area: 54 ha x average depth: 2 m ÷ 2
Estimated resource volume: 540,000 m³
Estimated resource tonnage (at 2 t/m³): 1,080,000 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: 54 ha x average depth: 2 m ÷ 2 Estimated resource volume: 540,000 m ³ Estimated resource tonnage (at 1.65 t/m³): 891,000 tonnes		
Conclusion:	Significant.		
Assessment of resource for the Fourth Stage consultation on MLP (August 2018)			
This resource area has been split into areas 4/13 and 4/13b.			
Resource area 4/13		Resource area 4/13b	
Resource area:	52ha	Commentary:	Screened out due to the following appendix A criterion: - Ancient Semi-Natural Woodland - Listed Building
Resource depth:	2m		
Revised estimate of resource:	Area: 52ha x average depth: 2m ÷ 2 Estimated resource volume: 520,000m ³ Estimated resource tonnage (at 1.65 t/m³): 858,000 tonnes		
Conclusion:	Significant resource.	Conclusion:	Compromised

Overview	
Resource number:	4/14
Resource name:	Seeley Brook
Resource area:	15ha
Resource depth:	Estimated 2m
Location	
OS sheet reference:	SO 95 NE
National grid ref:	395771, 260185

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100024230

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4/14

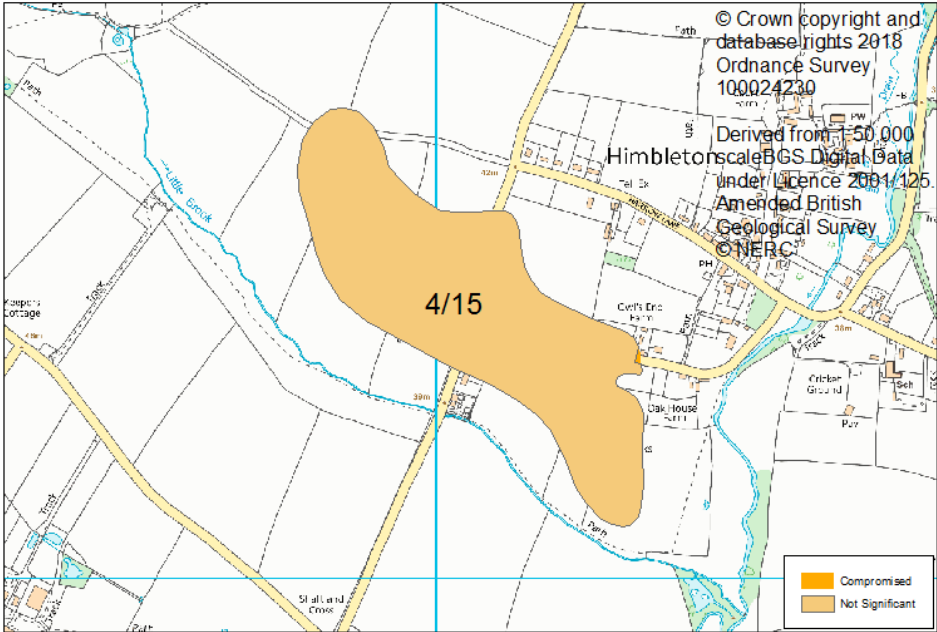
4/13

Not Significant

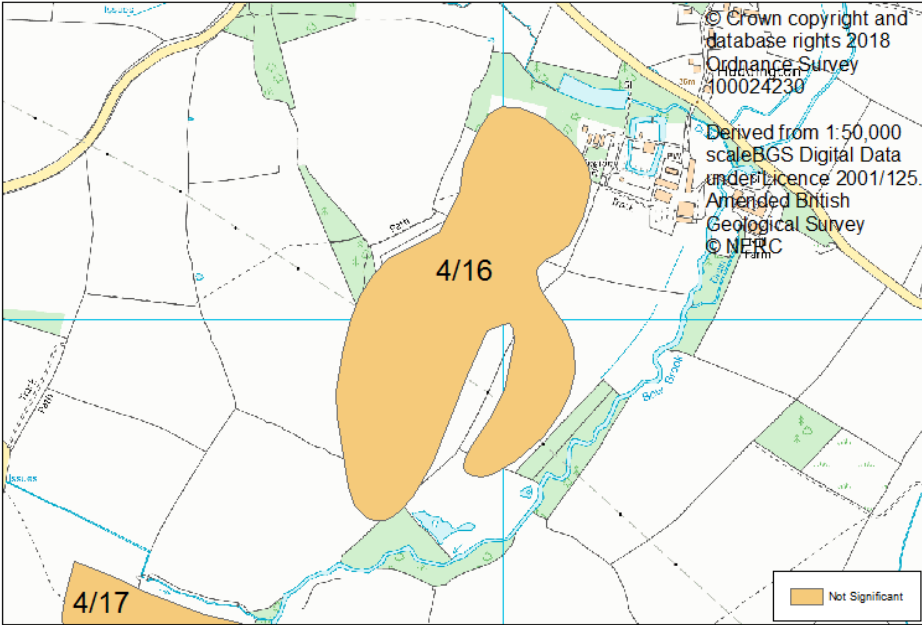
Significant

Resource description:	
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Resource description:	1 st terrace sand and gravel. Deposits flanking the Bow Brook tend to be clayey and consist mostly of sand with very little gravel. The BGS memoir states that there is a suite of five terraces in the valley of the Bow Brook. The Bow Brook is part of the River Avon drainage basin and the two sets of terraces (Bow Brook and Avon) are correlated. All of the Bow Brook terrace deposits are estimated to be up to 2m thick. There is no more detailed local information on depths available. (Average depth based on BGS memoirs: 2m)
Assessment of resource for the second consultation on MLP (Autumn 2013)	
Commentary:	A small resource area with little built development.
Crude estimate of resource:	Area: 15 ha x average depth: 2 m ÷ 2 Estimated resource volume: 150,000 m ³ Estimated resource tonnage (at 2 t/m³): 300,000 tonnes
Conclusion:	Not significant: Small deposit with less than 300,000m ³ . Not for consideration in defining areas of search.
Assessment of resource for the Third Stage consultation on MLP (Spring 2015)	
Revised estimate of resource:	Area: 15 ha x average depth: 2 m ÷ 2 Estimated resource volume: 150,000 m ³ Estimated resource tonnage (at 1.65 t/m³): 247,500 tonnes
Conclusion:	Not significant.
Assessment of resource for the Fourth Stage consultation on MLP (August 2018)	
Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation.	

Overview	
Resource number:	4/15
Resource name:	West of Himbleton
Resource area:	15ha
Resource depth:	Estimated 2m
Location	
OS sheet reference:	SO 95 NW
National grid ref:	394061, 258451
	
Resource description:	
Resource description:	<p>2nd terrace (Wasperton) sand and gravel. Deposits flanking the Bow Brook tend to be clayey and consist mostly of sand with very little gravel. The BGS memoir states that there is a suite of five terraces in the valley of the Bow Brook. The Bow Brook is part of the River Avon drainage basin and the two sets of terraces (Bow Brook and Avon) are correlated. All of the Bow Brook terrace deposits are estimated to be up to 2m thick. There is no more detailed local information on depths available. (Average depth based on BGS memoirs: 2m)</p>
Assessment of resource for the second consultation on MLP (Autumn 2013)	
Commentary:	A small resource area with some built development.
Crude estimate of resource:	<p>Area: 15 ha x average depth: 2 m ÷ 2 Estimated resource volume: 150,000 m³ Estimated resource tonnage (at 2 t/m³): 300,000 tonnes</p>
Conclusion:	<p>Not significant: Small deposit with less than 300,000m³. Not for consideration in defining areas of search.</p>
Assessment of resource for the Third Stage consultation on MLP (Spring 2015)	
Revised estimate of resource:	<p>Area: 15 ha x average depth: 2 m ÷ 2 Estimated resource volume: 150,000 m³ Estimated resource tonnage (at 1.65 t/m³): 247,500 tonnes</p>
Conclusion:	Not significant.
Assessment of resource for the Fourth Stage consultation on MLP (August 2018)	

Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation.

Overview	
Resource number:	4/16
Resource name:	Huddington
Resource area:	17ha
Resource depth:	Estimated 2m
Location	
OS sheet reference:	SO 95 NW
National grid ref:	393934, 257004
	
Resource description:	
Resource description:	<p>2nd terrace (Wasperton) sand and gravel. The deposit is a red to orange-brown, clayey, pebbly sand. The BGS memoir states that there is a suite of five terraces in the valley of the Bow Brook. The Bow Brook is part of the River Avon drainage basin and the two sets of terraces (Bow Brook and Avon) are correlated. All of the Bow Brook terrace deposits are estimated to be up to 2m thick.</p> <p>There is no more detailed local information on depths available.</p> <p>(Average depth based on BGS memoirs: mid-point of range 2m)</p>
Assessment of resource for the second consultation on MLP (Autumn 2013)	
Commentary:	A small resource area with little built development.
Crude estimate of resource:	<p>Area: 17 ha x average depth: 2 m ÷ 2</p> <p>Estimated resource volume: 170,000 m³</p> <p>Estimated resource tonnage (at 2 t/m³): 340,000 tonnes</p>
Conclusion:	<p>Not significant: Small deposit with less than 300,000m³.</p> <p>Not for consideration in defining areas of search.</p>
Assessment of resource for the Third Stage consultation on MLP (Spring 2015)	
Revised estimate of resource:	<p>Area: 17 ha x average depth: 2 m ÷ 2</p> <p>Estimated resource volume: 170,000 m³</p> <p>Estimated resource tonnage (at 1.65 t/m³): 280,500 tonnes</p>
Conclusion:	Not significant.
Assessment of resource for the Fourth Stage consultation on MLP (August 2018)	
Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation.	

Overview	
Resource number:	4/17
Resource name:	East of Crowle
Resource area:	32ha
Resource depth:	Estimated 2m
Location	
OS sheet reference:	SO 95 NW
National grid ref:	39341, 256039
Resource description:	
Resource description:	<p>1st terrace (Bretford) sand and gravel. The BGS memoir notes that east of Crowle the 2nd and 1st terraces merge and the two cannot be separated. The deposit, poorly exposed in ditches, is a red to orange-brown clayey, pebbly sand. There is evidence of small scale working in this area.</p> <p>The BGS memoir states that there is a suite of five terraces in the valley of the Bow Brook. The Bow Brook is part of the River Avon drainage basin and the two sets of terraces (Bow Brook and Avon) are correlated. All of the Bow Brook terrace deposits are estimated to be up to 2m thick.</p> <p>There is no more detailed local information on depths available. (Average depth based on BGS memoirs: 2m)</p>
Assessment of resource for the second consultation on MLP (Autumn 2013)	
Commentary:	A small resource area intersected by a road
Crude estimate of resource:	<p>Area: 32 ha x average depth: 2 m ÷ 2</p> <p>Estimated resource volume: 320,000 m³</p> <p>Estimated resource tonnage (at 2 t/m³): 640,000 tonnes</p>
Conclusion:	Significant. Consider in defining areas of search.
Assessment of resource for the Third Stage consultation on MLP (Spring 2015)	
Revised estimate of resource:	<p>Area: 32 ha x average depth: 2 m ÷ 2</p> <p>Estimated resource volume: 320,000 m³</p> <p>Estimated resource tonnage (at 1.65 t/m³): 528,000 tonnes</p>
Conclusion:	Change to conclusion: Not significant.
Assessment of resource for the Fourth Stage consultation on MLP (August 2018)	

Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation.

Overview	
Resource number:	4/18
Resource name:	North of Upton Snodsbury
Resource area:	11ha
Resource depth:	Estimated 2m
Location	
OS sheet reference:	SO 95 NW, SO 95 SW
National grid ref:	393345, 254877
Resource description:	
Resource description:	2 nd terrace (Wasperton) sand and gravel. The deposit is a red to orange-brown, clayey, pebbly sand. The BGS memoir states that there is a suite of five terraces in the valley of the Bow Brook. The Bow Brook is part of the River Avon drainage basin and the two sets of terraces (Bow Brook and Avon) are correlated. All of the Bow Brook terrace deposits are estimated to be up to 2m thick. There is no more detailed local information on depths available. (Average depth based on BGS memoirs: 2m)
Assessment of resource for the second consultation on MLP (Autumn 2013)	
Commentary:	A small resource area with no built development.
Crude estimate of resource:	Area: 11 ha x average depth: 2 m ÷ 2 Estimated resource volume: 110,000 m ³ Estimated resource tonnage (at 2 t/m³): 220,000 tonnes
Conclusion:	Not significant: Small deposit with less than 300,000m ³ . Not for consideration in defining areas of search.
Assessment of resource for the Third Stage consultation on MLP (Spring 2015)	
Revised estimate of resource:	Area: 11 ha x average depth: 2 m ÷ 2 Estimated resource volume: 110,000 m ³

Estimated resource tonnage (at 1.65 t/m³): 181,500 tonnes

Conclusion: Not significant.

Assessment of resource for the Fourth Stage consultation on MLP (August 2018)

Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation.

Overview	
Resource number:	4/19
Resource name:	East of Libbery
Resource area:	13ha
Resource depth:	Estimated 2m
Location	
OS sheet reference:	SO 95 NE
National grid ref:	395817, 255491
<p>Derived from 1:50,000 scale BGS Digital Data under Licence 2001/125 Amended British Geological Survey © NERC © Crown copyright and database rights 2018 Ordnance Survey 100024230</p>	
Resource description:	
Resource description:	<p>2nd terrace (Wasperton) sand and gravel. The deposit is a red to orange-brown, clayey, pebbly sand. Deposits flanking the Piddle Brook tend to be clayey and consist mostly of sand with very little gravel. The BGS memoir states that there is a suite of five terraces in the valley of the Bow Brook. The Bow Brook is part of the River Avon drainage basin and the two sets of terraces (Bow Brook and Avon) are correlated. All of the Bow Brook terrace deposits are estimated to be up to 2m thick.</p> <p>There is no more detailed local information on depths available. (Average depth based on BGS memoirs: 2m)</p>
Assessment of resource for the second consultation on MLP (Autumn 2013)	
Commentary:	A small resource area with no built development.
Crude estimate of resource:	<p>Area: 13 ha x average depth: 2 m ÷ 2 Estimated resource volume: 130,000 m³ Estimated resource tonnage (at 2 t/m³): 260,000 tonnes</p>
Conclusion:	<p>Not significant: Small deposit with less than 300,000m³. Not for consideration in defining areas of search.</p>
Assessment of resource for the Third Stage consultation on MLP (Spring 2015)	
Revised estimate of resource:	<p>Area: 13 ha x average depth: 2 m ÷ 2 Estimated resource volume: 130,000 m³ Estimated resource tonnage (at 1.65 t/m³): 214,500 tonnes</p>
Conclusion:	Not significant.

Assessment of resource for the Fourth Stage consultation on MLP (August 2018)

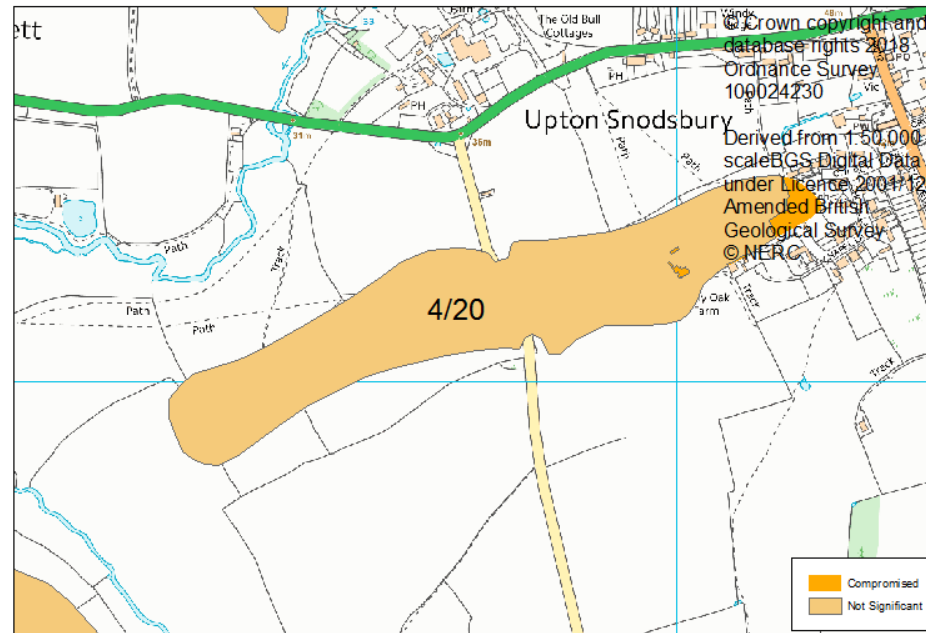
Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation.

Overview

Resource number: 4/20
Resource name: West of Upton Snodsbury
Resource area: 13ha
Resource depth: Estimated 2m

Location

OS sheet reference: SO 95 SW
National grid ref: 393720, 254110

**Resource description:**

Resource description: 4th terrace (Ailstone) sand and gravel. No exposures seen, but ploughed fields on all of the outcrops of the 4th terrace showed traces of orange to red-brown, often clayey, sand with scattered pebbles. The BGS memoir states that there is a suite of five terraces in the valley of the Bow Brook. The Bow Brook is part of the River Avon drainage basin and the two sets of terraces (Bow Brook and Avon) are correlated. All of the Bow Brook terrace deposits are estimated to be up to 2m thick. There is no more detailed local information on depths available. (Average depth based on BGS memoirs: 2m)

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A small resource area intersected by a road with some built development.

Crude estimate of resource: Area: 13 ha x average depth: 2 m ÷ 2
 Estimated resource volume: 130,000 m³
Estimated resource tonnage (at 2 t/m³): 260,000 tonnes

Conclusion: Not significant: Small deposit with less than 300,000m³.
 Not for consideration in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of Area: 13 ha x average depth: 2 m ÷ 2

resource:	Estimated resource volume: 130,000 m ³ Estimated resource tonnage (at 1.65 t/m³): 214,500 tonnes
Conclusion:	Not significant.
Assessment of resource for the Fourth Stage consultation on MLP (August 2018)	
Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation.	

Overview	
Resource number:	4/21
Resource name:	Edward's Lane
Resource area:	26ha
Resource depth:	Estimated 2m
Location	
OS sheet reference:	SO 95 SW
National grid ref:	392999, 253360
Resource description:	
Resource description:	<p>2nd terrace (Wasperton). A ditch section 1m deep within the deposit found gravel, red-brown poorly sorted sand matrix, locally clayey and pebble-free, pebbles, mostly rounded Kidderminster formation quartzites with angular quartzite, chert, various sandstones, shale.</p> <p>The BGS memoir states that there is a suite of five terraces in the valley of the Bow Brook. The Bow Brook is part of the River Avon drainage basin and the two sets of terraces (Bow Brook and Avon) are correlated. All of the Bow Brook terrace deposits are estimated to be up to 2m thick.</p> <p>There is no more detailed local information on depths available.</p> <p>(Average depth based on BGS memoirs: 2m)</p>
Assessment of resource for the second consultation on MLP (Autumn 2013)	
Commentary:	A small resource area, with little built development.
Crude estimate of	Area: 26 ha x average depth: 2 m ÷ 2

resource:	Estimated resource volume: 260,000 m ³ Estimated resource tonnage (at 2 t/m³): 520,000 tonnes
Conclusion:	Not significant: Small deposit with less than 300,000m ³ . Not for consideration in defining areas of search.
Assessment of resource for the Third Stage consultation on MLP (Spring 2015)	
Revised estimate of resource:	Area: 26 ha x average depth: 2 m ÷ 2 Estimated resource volume: 260,000 m ³ Estimated resource tonnage (at 1.65 t/m³): 429,000 tonnes
Conclusion:	Not significant.
Assessment of resource for the Fourth Stage consultation on MLP (August 2018)	
Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation.	

Overview	
Resource number:	4/22
Resource name:	Edward's Bridge
Resource area:	20ha
Resource depth:	Estimated 2m
Location	
OS sheet reference:	SO 95 SW
National grid ref:	393537, 253112
Resource description:	
Resource description:	<p>2nd terrace (Wasperton). A ditch section 1m deep within the deposit to the west found gravel, red-brown poorly sorted sand matrix, locally clayey and pebble-free, pebbles, mostly rounded Kidderminster formation quartzites with angular quartzite, chert, various sandstones, shale.</p> <p>The BGS memoir states that there is a suite of five terraces in the valley of the Bow Brook. The Bow Brook is part of the River Avon drainage basin and the two sets of terraces (Bow Brook and Avon) are correlated. All of the Bow Brook terrace deposits are estimated to be up to 2m thick.</p> <p>There is no more detailed local information on depths available.</p> <p>(Average depth based on BGS memoirs: 2m)</p>
Assessment of resource for the second consultation on MLP (Autumn 2013)	
Commentary:	A small resource area intersected by a road, with little built development.
Crude estimate of resource:	<p>Area: 20 ha x average depth: 2 m ÷ 2</p> <p>Estimated resource volume: 200,000 m³</p> <p>Estimated resource tonnage (at 2 t/m³): 400,000 tonnes</p>
Conclusion:	<p>Not significant: Small deposit with less than 300,000m³.</p> <p>Not for consideration in defining areas of search.</p>
Assessment of resource for the Third Stage consultation on MLP (Spring 2015)	
Revised estimate of resource:	<p>Area: 20 ha x average depth: 2 m ÷ 2</p> <p>Estimated resource volume: 200,000 m³</p>

Estimated resource tonnage (at 1.65 t/m³): 330,000 tonnes	
Conclusion:	Not significant.
Assessment of resource for the Fourth Stage consultation on MLP (August 2018)	
Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation.	

Overview	
Resource number:	4/24
Resource name:	Low Hill
Resource area:	15ha
Resource depth:	Estimated 2m
Location	
OS sheet reference:	SO 95 SW
National grid ref:	390924, 252295
Resource description:	
Resource description:	Glaciofluvial sand and gravel. No exposures seen, but brown clayey sand proved by augering. The BGS memoirs estimate that the deposit is about 2m thick. (Average depth based on BGS memoirs estimate of 2m)
Assessment of resource for the second consultation on MLP (Autumn 2013)	
Commentary:	A small resource area with some built development.
Crude estimate of resource:	Area: 15 ha x average depth: 2 m ÷ 2 Estimated resource volume: 150,000 m ³ Estimated resource tonnage (at 2 t/m³): 300,000 tonnes
Conclusion:	Not significant: Small deposit with less than 300,000m ³ . Not for consideration in defining areas of search.
Assessment of resource for the Third Stage consultation on MLP (Spring 2015)	
Revised estimate of resource:	Area: 15 ha x average depth: 2 m ÷ 2 Estimated resource volume: 150,000 m ³ Estimated resource tonnage (at 1.65 t/m³): 247,500 tonnes
Conclusion:	Not significant.
Assessment of resource for the Fourth Stage consultation on MLP (August 2018)	
Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation.	