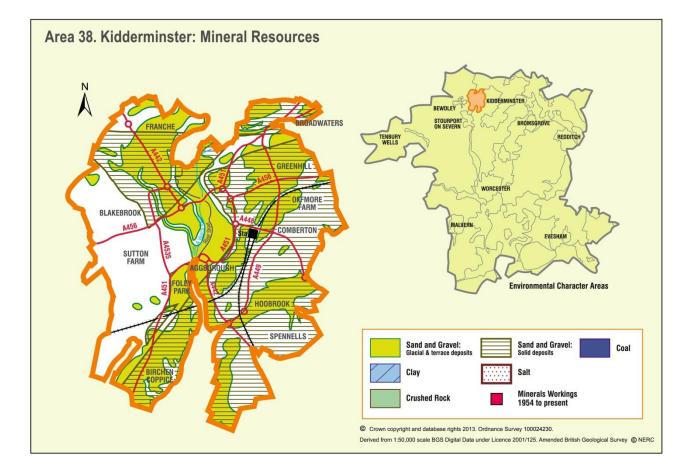
# Appendix 38: Analysis of aggregate resources in Area 38: Kidderminster



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

### Sand and gravel

There are 5 resource areas identified for sand and gravel in Kidderminster Area:

- Not significant: 1
- Compromised: 4

There are also solid sand deposits in this area. These are assessed in Appendix 2 (Severn Valley North) as resource areas 2/21 and 2/25.

## Crushed rock

There are no resource areas identified in Kidderminster area for crushed rock.

### Non-aggregates

BGS data indicates that there are no non-aggregate mineral deposits in this Area.

# **Overview of resource assessment for ECA 38**

Sand and gravel resource areas:

Resource	Second Stage Consultation		Third Stage Cons	Third Stage Consultation	
number*	Original estimated resource	Significance	Revised estimate of resource	Significance	
	tonnage (2 tonnes/m <sup>3</sup> )		tonnage (1.65 tonnes/m <sup>3</sup> )		
38/1	320,000	Not significant	264,000	Not significant	
38/2	5,166,000	Compromised	4,261,950	Compromised	
38/3	966,000	Compromised	796,950	Compromised	
38/4	610,000	Compromised	503,250	Compromised	
38/5	5,795,000	Compromised	4,780,875	Compromised	

Overview		
Resource number:	38/1	
Resource name:	Spennells Valley	
	Road	
Resource area:	10ha	
Resource depth:	Estimated 3.2m	
Location	Sty 38/3	
OS sheet reference:	SO 87 NW	
National grid ref:	384324, 275409 2/16 / Em 247	
_	38/1 2/21	
	CALLER SERVICE	
	Stone // Stone //	
	Derived from 1 50 000 soale BGB Digital Data under	
	Corporque obevright and detables erights 2013 Ordance	
	Sove 100024230	
Resource description:		
Resource description:	Resource area 38/1 is 1 <sup>st</sup> terrace (Powerhouse) sand and gravel. The BGS memoirs state that the 1 <sup>st</sup> terrace	
-	varies in depth between 6' (1.8m) and 14'8" (4.5m) in the Stourport/Kidderminster area.	
	Estimated resource depth based on mid-point in BGS estimate 1.8m to 4.5m: 3.2m.	
	This resource area is underlain by solid sand deposits (assessed as resource area 2/21 and 2/25).	
	ce for the second consultation on MLP (Autumn 2013)	
Commentary:	A small resource area with some built development in the east.	
Crude estimate of	Area: 10 ha x average depth: 3.2 m ÷ 2	
resource:	Estimated resource volume: 160,000 m <sup>3</sup>	
	Estimated resource tonnage (at 2 t/m <sup>3</sup> ): 320,000 tonnes	
Conclusion:	Not significant: Small deposit with less than 300,000m <sup>3</sup> .	
	Not for consideration in defining areas of search.	
	ce for the Third Stage consultation on MLP (Spring 2015)	
Revised estimate of	Area: 10 ha x average depth: $3.2 \text{ m} \div 2_{3}$	
resource:	Estimated resource volume: 160,000 m <sup>3</sup>	
resource: Conclusion:	Estimated resource volume: 160,000 m <sup>3</sup> Estimated resource tonnage (at 1.65 t/m <sup>3</sup> ): 264,000 tonnes Not significant.	

Overview	
Resource number:	38/2 10/25 Conversion 2/19 Conversion
Resource name:	Greenhill
Resource area:	123ha
Resource depth:	Estimated 4.2m
Location	Estimated 4.2m
OS sheet reference:	SO 87 NW 38/2
National grid ref:	384160, 277146
_	38/5 38/4 5 5 20
	Alt Little
	Dunclent
	38/2
	Derived from 1.50,000 scale BGS Digital 0 ata nder
	16 NER2/22
	tel Crown copyrent and database 200 2013 Croance
Resource description:	
Resource description:	Resource area 38/2 is 4 <sup>th</sup> terrace (Kidderminster Station) sand and gravel. Pits have been worked in the
·····	southern end of this terrace in the past. In Lea and Mole's Pits (formerly Yates) adjoining the station there is a
	distinct bi-partition of the pits into fine sandy red or brown loam with a basal layer of pebbles up to 5' thick
	overlying 10' of coarse gravel and sand (total 15' or 4.6m). The gravels are contorted and contain local pockets
	overlying 10' of coarse gravel and sand (total 15' or 4.6m). The gravels are contorted and contain local pockets of sand and sandy clay. Further in the south were sections showing up to 12' (3.7m) of sand and coarse
	of sand and sandy clay. Further in the south were sections showing up to 12' (3.7m) of sand and coarse
	of sand and sandy clay. Further in the south were sections showing up to 12' (3.7m) of sand and coarse gravel.
	of sand and sandy clay. Further in the south were sections showing up to 12' (3.7m) of sand and coarse gravel. Estimated resource depth based on mean average of: a) Lea and Mole's Pit 4.6m and b) sections in the south 3.7m = 4.2m
Assessment of resourc	of sand and sandy clay. Further in the south were sections showing up to 12' (3.7m) of sand and coarse gravel. Estimated resource depth based on mean average of: a) Lea and Mole's Pit 4.6m and b) sections in the south
Assessment of resourc Commentary:	of sand and sandy clay. Further in the south were sections showing up to 12' (3.7m) of sand and coarse gravel. Estimated resource depth based on mean average of: a) Lea and Mole's Pit 4.6m and b) sections in the south 3.7m = 4.2m This resource area is underlain by solid sand deposits (assessed as resource area 2/25).
	of sand and sandy clay. Further in the south were sections showing up to 12' (3.7m) of sand and coarse gravel. Estimated resource depth based on mean average of: a) Lea and Mole's Pit 4.6m and b) sections in the south 3.7m = 4.2m This resource area is underlain by solid sand deposits (assessed as resource area 2/25). ce for the second consultation on MLP (Autumn 2013)
Commentary:	of sand and sandy clay. Further in the south were sections showing up to 12' (3.7m) of sand and coarse gravel. Estimated resource depth based on mean average of: a) Lea and Mole's Pit 4.6m and b) sections in the south 3.7m = 4.2m This resource area is underlain by solid sand deposits (assessed as resource area 2/25). <b>ce for the second consultation on MLP (Autumn 2013)</b> A medium-sized resource area overlain by the settlement of Kidderminster. Area: 123 ha x average depth: 4.2 m ÷ 2 Estimated resource volume: 2,583,000 m <sup>3</sup>
Commentary: Crude estimate of	of sand and sandy clay. Further in the south were sections showing up to 12' (3.7m) of sand and coarse gravel. Estimated resource depth based on mean average of: a) Lea and Mole's Pit 4.6m and b) sections in the south 3.7m = 4.2m This resource area is underlain by solid sand deposits (assessed as resource area 2/25). <b>ce for the second consultation on MLP (Autumn 2013)</b> A medium-sized resource area overlain by the settlement of Kidderminster. Area: 123 ha x average depth: 4.2 m ÷ 2
Commentary: Crude estimate of resource: Conclusion:	of sand and sandy clay. Further in the south were sections showing up to 12' (3.7m) of sand and coarse gravel. Estimated resource depth based on mean average of: a) Lea and Mole's Pit 4.6m and b) sections in the south 3.7m = 4.2m This resource area is underlain by solid sand deposits (assessed as resource area 2/25). <b>ce for the second consultation on MLP (Autumn 2013)</b> A medium-sized resource area overlain by the settlement of Kidderminster. Area: 123 ha x average depth: 4.2 m ÷ 2 Estimated resource volume: 2,583,000 m <sup>3</sup> <b>Estimated resource tonnage (at 2 t/m<sup>3</sup>): 5,166,000 tonnes</b> Compromised by development.
Commentary: Crude estimate of resource: Conclusion: Assessment of resource	of sand and sandy clay. Further in the south were sections showing up to 12' (3.7m) of sand and coarse gravel. Estimated resource depth based on mean average of: a) Lea and Mole's Pit 4.6m and b) sections in the south 3.7m = 4.2m This resource area is underlain by solid sand deposits (assessed as resource area 2/25). <b>ce for the second consultation on MLP (Autumn 2013)</b> A medium-sized resource area overlain by the settlement of Kidderminster. Area: 123 ha x average depth: 4.2 m ÷ 2 Estimated resource volume: 2,583,000 m <sup>3</sup> <b>Estimated resource tonnage (at 2 t/m<sup>3</sup>): 5,166,000 tonnes</b> Compromised by development. <b>ce for the Third Stage consultation on MLP (Spring 2015)</b>
Commentary: Crude estimate of resource: Conclusion:	of sand and sandy clay. Further in the south were sections showing up to 12' (3.7m) of sand and coarse gravel. Estimated resource depth based on mean average of: a) Lea and Mole's Pit 4.6m and b) sections in the south 3.7m = 4.2m This resource area is underlain by solid sand deposits (assessed as resource area 2/25). <b>ce for the second consultation on MLP (Autumn 2013)</b> A medium-sized resource area overlain by the settlement of Kidderminster. Area: 123 ha x average depth: 4.2 m ÷ 2 Estimated resource volume: 2,583,000 m <sup>3</sup> <b>Estimated resource tonnage (at 2 t/m<sup>3</sup>): 5,166,000 tonnes</b> Compromised by development. <b>ce for the Third Stage consultation on MLP (Spring 2015)</b> Area: 123 ha x average depth: 4.2 m ÷ 2
Commentary: Crude estimate of resource: Conclusion: Assessment of resource	of sand and sandy clay. Further in the south were sections showing up to 12' (3.7m) of sand and coarse gravel. Estimated resource depth based on mean average of: a) Lea and Mole's Pit 4.6m and b) sections in the south 3.7m = 4.2m This resource area is underlain by solid sand deposits (assessed as resource area 2/25). <b>Ce for the second consultation on MLP (Autumn 2013)</b> A medium-sized resource area overlain by the settlement of Kidderminster. Area: 123 ha x average depth: 4.2 m ÷ 2 Estimated resource volume: 2,583,000 m <sup>3</sup> <b>Estimated resource tonnage (at 2 t/m<sup>3</sup>): 5,166,000 tonnes</b> Compromised by development. <b>Ce for the Third Stage consultation on MLP (Spring 2015)</b> Area: 123 ha x average depth: 4.2 m ÷ 2 Estimated resource volume: 2,583,000 m <sup>3</sup>
Commentary: Crude estimate of resource: Conclusion: Assessment of resource Revised estimate of	of sand and sandy clay. Further in the south were sections showing up to 12' (3.7m) of sand and coarse gravel. Estimated resource depth based on mean average of: a) Lea and Mole's Pit 4.6m and b) sections in the south 3.7m = 4.2m This resource area is underlain by solid sand deposits (assessed as resource area 2/25). <b>ce for the second consultation on MLP (Autumn 2013)</b> A medium-sized resource area overlain by the settlement of Kidderminster. Area: 123 ha x average depth: 4.2 m ÷ 2 Estimated resource volume: 2,583,000 m <sup>3</sup> <b>Estimated resource tonnage (at 2 t/m<sup>3</sup>): 5,166,000 tonnes</b> Compromised by development. <b>ce for the Third Stage consultation on MLP (Spring 2015)</b> Area: 123 ha x average depth: 4.2 m ÷ 2

Overview		
Overview    Resource number:    Resource name:    Resource area:    Resource depth:    Location    OS sheet reference:    National grid ref:	38/3    Aggborough    23ha    Estimated 4.2m    SO 87 NW    383469, 275754    Operation of the set of	
Resource description:		
Resource description:	Resource area 38/3 is 4 <sup>th</sup> terrace (Kidderminster Station) sand and gravel. Pits have been worked in the southern end of this terrace in the past. In Lea and Mole's Pits (formerly Yates) adjoining the station there is a distinct bi-partition of the pits into fine sandy red or brown loam with a basal layer of pebbles up to 5' thick overlying 10' of coarse gravel and sand (total 15' or 4.6m). The gravels are contorted and contain local pockets of sand and sandy clay. Further in the south were sections showing up to 12' (3.7m) of sand and coarse gravel. Estimated resource depth based on mean average of: a) Lea and Mole's Pit 4.6m and b) sections in the south $3.7m = 4.2m$	
Assessment of resource	This resource area is underlain by solid sand deposits (assessed as resource area 2/25). The for the second consultation on MLP (Autumn 2013)	
Commentary:	A small resource area overlain by the settlement of Kidderminster. This deposit has partially been worked, this is not included as part of the resource area.	
Crude estimate of	Area: 23 ha x average depth: 4.2 m ÷ 2	
resource:	Estimated resource volume: 483,000 m <sup>3</sup> Estimated resource tonnage (at 2 t/m <sup>3</sup> ): 966,000 tonnes	
Conclusion:	Compromised by development.	
	the for the Third Stage consultation on MLP (Spring 2015)	
Revised estimate of resource:	Area: 23 ha x average depth: 4.2 m ÷ 2 Estimated resource volume: 483,000 m <sup>3</sup> Estimated resource tonnage (at 1.65 t/m³): 796,950 tonnes	
Conclusion:	Compromised by development.	

Resource number:  38/4    Resource name:  Churchfields    Resource area:  10ha    Resource depth:  Estimated 6.1m    Location  OS sheet reference:    OS sheet reference:  S0 87 NW    National grid ref:  383251, 277105    Resource description:  Resource description:    Resource description:  Resource area 38/4 is 3 <sup>rd</sup> terrace (Holt Heath) sand and gravel. The BGS estimates that the 3 <sup>rd</sup> terrace varies between 15 (4.5m) and 25 (7.6m) in the Stourport/Kidderminster area.    Estimated resource depth deposits (assessed as resource area 2/25).    Assessment of resource for the second consultation on MLP (Autumn 2013)    Commentary:  A small resource area overlain by the settlement of Kidderminster.    Crude estimate of resource to ronsultation on MLP (Autumn 2013)    Conclusion:  Compromised by development.    Assessment of resource for the source toronge (at 2 t/m <sup>3</sup> ): 610,000 tonnes    Conclusion:  Compromised by development.    Assessment of resource for the there source volume: 305,000 m <sup>3</sup> Estimated resource volume: 305,000 m <sup>3</sup> Estimated resou	Overview		
Resource area:  10ha    Resource depth:  Estimated 6.1m    Location	Resource number:	38/4	
Resource depth:  Estimated 6.1m    Location  So sheet reference:  SO 87 NW    National grid ref:  383251, 277105    Jassessent of resource description:  Resource description:    Resource description:  Resource depth based on mid-point of BGS estimates (4.5m to 7.6m): 6.1m.    This resource depth based on mid-point of BGS estimates (4.5m to 7.6m): 6.1m.    This resource area is underlain by solid sand deposits (assessed as resource area 2/25).    Assessment of resource for the second consultation on MLP (Autumn 2013)    Commentary:  A rea: 10 ha x average depth: 6.1 m ÷ 2    Estimated resource volume: 305,000 m³    Conclusion:  Compromised by development.	Resource name:	Churchfields	
Location    OS sheet reference:  SO 87 NW    National grid ref:  383251, 277105    Resource description:  Resource area 38/4 is 3 <sup>rd</sup> terrace (Holt Heath) sand and gravel. The BGS estimates that the 3 <sup>rd</sup> terrace varies between 15' (4.5m) and 25' (7.6m) in the Stourport/Kidderminster area.    Estimated resource depth based on mid-point of BGS estimates (4.5m to 7.6m): 6.1m.    This resource area is underlain by solid sand deposits (assessed as resource area 2/25).    Assessment of resource for the second consultation on MLP (Autumn 2013)    Corude estimate of resource area 10 ha x average depti: 6.1 m + 2    Estimated resource volume: 305,000 m <sup>3</sup> Estimated resource volume: 305,000 m <sup>3</sup> Estimated resource volume: 305,000 m <sup>3</sup> Estimated resource to nume; 42 tm <sup>3</sup> ): 610,000 tonnes    Conclusion:  Compromised by development.	Resource area:	10ha	
OS sheet reference: National grid ref:  SO 87 NW 383251, 277105    Resource description: Resource description: Resource description: Resource description: Resource description: Resource description: Resource area 38/4 is 3 <sup>rd</sup> terrace (Holt Heath) sand and gravel. The BGS estimates that the 3 <sup>rd</sup> terrace varies between 15' (4.5m) and 25' (7.6m) in the Stourport/Kidderminster area. Estimated resource area overlain by solid sand deposits (assessed as resource area 2/25).    Assessment of resource area overlain by solid sand deposits (assessed as resource area 2/25).    Commentary: Estimated of resource: Estimated resource volume: 305,000 m <sup>3</sup> Estimated resource volume: 305,000 m <sup>3</sup> Estimated resource volume: 305,000 m <sup>3</sup> Conclusion:  Compromised by development.	Resource depth:	Estimated 6.1m	
OS sheet reference:  SO 87 NW    National grid ref:  383251, 277105    Image: Second	Location	2/21	
Resource description:  Resource area 38/4 is 3 <sup>rd</sup> terrace (Holt Heath) sand and gravel. The BGS estimates that the 3 <sup>rd</sup> terrace varies between 15' (4.5m) and 25' (7.6m) in the Stourport/Kidderminster area.    Estimated resource depth based on mid-point of BGS estimates (4.5m to 7.6m): 6.1m.  This resource area is underlain by solid sand deposits (assessed as resource area 2/25).    Assessment of resource for the second consultation on MLP (Autumn 2013)  Commentary:  A small resource area overlain by the settlement of Kidderminster.    Crude estimate of resource area overlain by the settlement of Kidderminster.  Area: 10 ha x average depth: 6.1 m ÷ 2    Estimated resource volume: 305,000 m <sup>3</sup> Estimated resource tornage (at 2 t/m <sup>3</sup> ): 610,000 tonnes    Conclusion:  Compromised by development.	OS sheet reference:	SO 87 NW	
Resource description:  Resource area 38/4 is 3 <sup>rd</sup> terrace (Holt Heath) sand and gravel. The BGS estimates that the 3 <sup>rd</sup> terrace varies between 15' (4.5m) and 25' (7.6m) in the Stourport/Kidderminster area.    Estimated resource depth based on mid-point of BGS estimates (4.5m to 7.6m): 6.1m.    This resource area is underlain by solid sand deposits (assessed as resource area 2/25).    Assessment of resource for the second consultation on MLP (Autumn 2013)    Commentary:  A small resource area overlain by the settlement of Kidderminster.    Crude estimate of resource is underlain by 305,000 m <sup>3</sup> Estimated resource tonnage (at 2 t/m <sup>3</sup> ): 610,000 tonnes    Compromised by development.	National grid ref:	38/5 Sch Sch Sch Sch Sch Sch Sch Sch	
Resource description:  Resource area 38/4 is 3 <sup>rd</sup> terrace (Holt Heath) sand and gravel. The BGS estimates that the 3 <sup>rd</sup> terrace varies between 15' (4.5m) and 25' (7.6m) in the Stourport/Kidderminster area.    Estimated resource depth based on mid-point of BGS estimates (4.5m to 7.6m): 6.1m.    This resource area is underlain by solid sand deposits (assessed as resource area 2/25).    Assessment of resource for the second consultation on MLP (Autumn 2013)    Commentary:  A small resource area overlain by the settlement of Kidderminster.    Crude estimate of resource:  A rea: 10 ha x average depth: 6.1 m ÷ 2    Estimated resource volume: 305,000 m <sup>3</sup> Estimated resource tonnage (at 2 t/m <sup>3</sup> ): 610,000 tonnes    Compromised by development.	Resource description:		
Assessment of resource for the second consultation on MLP (Autumn 2013)    Commentary:  A small resource area overlain by the settlement of Kidderminster.    Crude estimate of resource:  Area: 10 ha x average depth: 6.1 m ÷ 2    Estimated resource volume: 305,000 m <sup>3</sup> Estimated resource tonnage (at 2 t/m <sup>3</sup> ): 610,000 tonnes    Conclusion:  Compromised by development.		between 15' (4.5m) and 25' (7.6m) in the Stourport/Kidderminster area.	
Commentary:  A small resource area overlain by the settlement of Kidderminster.    Crude estimate of resource:  Area: 10 ha x average depth: 6.1 m ÷ 2    Estimated resource volume: 305,000 m <sup>3</sup> Estimated resource tonnage (at 2 t/m <sup>3</sup> ): 610,000 tonnes    Conclusion:  Compromised by development.			
Crude estimate of resource:  Area: 10 ha x average depth: 6.1 m ÷ 2    Estimated resource volume: 305,000 m <sup>3</sup> Estimated resource tonnage (at 2 t/m <sup>3</sup> ): 610,000 tonnes    Conclusion:  Compromised by development.			
resource:  Estimated resource volume: 305,000 m <sup>3</sup> Estimated resource tonnage (at 2 t/m <sup>3</sup> ): 610,000 tonnes    Conclusion:  Compromised by development.			
Estimated resource tonnage (at 2 t/m³): 610,000 tonnes      Conclusion:    Compromised by development.			
Conclusion: Compromised by development.	resource:		
	Conclusion		
<b>Revised estimate of</b> Area: 10 ha x average depth: 6.1 m ÷ 2			
<b>resource:</b> Estimated resource volume: $305,000 \text{ m}^3$			
Estimated resource tonnage (at 1.65 t/m <sup>3</sup> ): 503,250 tonnes			
Conclusion:    Compromised by development.	Conclusion:		

Overview		
Resource number:	38/5	
Resource name:	Blakebrook and	
	Franche	
Resource area:	95ha Ht.10/25tev	
Resource depth:	Estimated 6.1m	
Location		
OS sheet reference:	SO 87 NW	
National grid ref:	382266, 277250 9181 38/5 38/5 000 30/2	
-	38/4	
	Habberley Sch 210 Are Farm	
	Blakebrook C	
	Semmerhill Combertan	
	Derived from 1.50,000 s calle BGS Digital Data under	
	Lisence 2001/125 Amended British Geological Striver	
	//c/ C10//250pyhight and database rights 20132/22nos	
	Burney 100/22/230 10 Sutton 11 2/22	
Resource description:		
Resource description:	3 <sup>rd</sup> terrace (Holt Heath) sand and gravel. The 3 <sup>rd</sup> terrace varies between 15' (4.5m) and 25' (7.6m) in the	
	Stourport/Kidderminster area.	
	Estimated resource depth based on mid-point of BGS estimated (4.5m to 7.6m): 6.1m.	
	This resource area is underlain by solid sand deposits (assessed as resource area 2/25).	
	ce for the second consultation on MLP (Autumn 2013)	
Commentary:	This resource area is overlain by the settlement of Kidderminster. The northern end of the deposit has	
Crude estimate of	previously been worked, this is not included as part of the resource area. Area: 95 ha x average depth: 6.1 m ÷ 2	
	Estimated resource volume: 2,897,500 m <sup>3</sup>	
resource:	Estimated resource tonnage (at 2 t/m <sup>3</sup> ): 5,795,000 tonnes	
Conclusion:	Compromised by development.	
Assessment of resource		
	ce for the Third Stage consultation on MLP (Spring 2015)	
Revised estimate of	ce for the Third Stage consultation on MLP (Spring 2015) Area: 95 ha x average depth: 6.1 m ÷ 2	
	ce for the Third Stage consultation on MLP (Spring 2015) Area: 95 ha x average depth: 6.1 m ÷ 2 Estimated resource volume: 2,897,500 m <sup>3</sup>	
Revised estimate of	ce for the Third Stage consultation on MLP (Spring 2015) Area: 95 ha x average depth: 6.1 m ÷ 2	