From:

Sent: 10 October 2019 17:11

To: Planning Policy

Subject: MLP Nottingham Shelford

Attachments: Representation Form signed FINAL.pdf; Notts Publication Draft MLP BAL 10.10.19 FINAL.pdf;

Notts draft MLP BAL response Appendices FINAL_Part1.pdf; Notts draft MLP BAL response

Appendices FINAL_Part2.pdf

Follow Up Flag: Follow up Flag Status: Flagged

Please find attached representations to the Nottinghamshire Minerals Local Plan – Publication version made on behalf of Brett Aggregates Ltd.

Nottinghamshire Minerals Local Plan -Publication Version



Representation Form

This is the representation form for the Nottinghamshire Minerals Local Plan - Publication Version published by Nottinghamshire County Council. The Publication Version and the supporting information can be found online at www.nottinghamshire.gov.uk/minerals. You can submit your representations online via our interactive system by using this link.

The formal representation period is open from Friday 30th August 2019 to 4.30pm Friday 11 October. All representations must be received during this period.

If you wish to submit a representation to the Plan using this form, please complete all parts and then send it to us via email or post, using the addresses below. Please note:

- All respondents need to provide their personal details. It is not possible for representations to be anonymous. All responses will be made public.
- Representations must be on the basis of the 'soundness' of the plan or its legal and Duty to Co-operate compliance. Please read the guidance note on this for further information.
- Part B of the form contains your representations. Please fill in a separate Part B for each representation you wish you make. You only need to fill in Part A once.
- If you are part of a group that share a common view, it would be helpful for that group to send a single representation rather than multiple copies stating the same point. Please indicate how many people are represented and how it has been authorised (e.g. by means of a list with contact details for each person or by a committee vote). This holds the same weight as separately submitted representations.

If you have any queries please contact us as below or ring us on 0300 500 80 80.

Please return completed forms to:

Planning Policy Team Main planning.policy@nottscc.gov.uk County Hall, West Bridgford, Nottingham, NG2 7QP

We must receive your representations before 4.30pm, Friday 11th October 2019. Representations received after this cannot be accepted.

All of the representations received will be submitted with the Plan and will be examined by a planning inspector who will consider whether the Plan is 'sound' and complies with the legal requirements.

Nottinghamshire County Council's Planning Policy Service is committed to protecting your privacy and ensuring all personal information is kept confidential and safe. View our privacy notice at www.nottinghamshire.gov.uk/privacy

Part A - Personal details

Office use only
Person No:
Rep Nos:

	1. Personal details	2. Agent details (where applicable)
Title	Mr	Mrs
First name	Simon	Jennifer
Last name	Treacy	Owen
Address line		Bargrove Farm
Address line 2		Newington
Address line 3		Folkestone
Postcode		CT188BH
Email		
For those reply	ring on behalf of an organisation	or group:
Organisation	Brett Aggregates Ltd.	Jennifer Owen & Associates Ltd
Job title	Planning Director	Director

Part B – You	Office use only Person No:					
Please read the	guidance n	ote before	e completing this	section.	Rep No:	
Name or organ	isation:l	Brett Agg	gregates Ltd			
3. To which par	t of the Lo	cal Plan	does this repres	entation relate?		
Policy	Site code		Map/Plan	Paragraph	Other	
l. Do you consi	der the ide	entified pa	art of the Local I	Plan to be:		
Legally compliant?	Yes	No				
Sound?	Yes	No				
Complies with the Duty to co- operate	Yes	No				
Please tick as ap	propriate.					
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ee attached document		

should not assume that you will have a further opportunity to make submissions.

on the matters and issues he or she identifies for examination.

After this stage, further submissions may only be made if invited by the Inspector, based

6. Please set out what change(s) you consider necessary to make the identified part of the Local Plan legally compliant or sound, in respect of any legal compliance or soundness matters you have identified above. (please note that non-compliance with the duty to co-

operate is incapable of modification at examination). You will need to say why each

7. If your representation is seeking modification to the plan, do you consider it necessar	v
to participate in the examination hearing session(s)?	,

No, I do not wish to participate in the hearing	
session(s)	
Yes, I wish to participate in the hearing	Yes
session(s)	

Please note that while this will provide an initial indication of your wish to participate in the hearing session(s), you may be asked at a later point to confirm your request to participate.

8. If you wish to participate in the hearing session(s), please outline why you consider this to be necessary:

In order to present to an Inspector the arguments in support of the objections made in the light of the response from the Council and representations made by other parties.								

Please note the Inspector will determine the most appropriate procedure to adopt to hear those who have indicated that they wish to participate in hearing session(s). You may be asked to confirm your wish to participate when the Inspector has identified the matters and issues for examination.

Signature		Date	10.10.19
Name	Jennifer Owen	· · · · · · · · · · · · · · · · · · ·	

Appendix 1, Table 2 Nott	inghamsh	nire annu	ıal dwelli	ing comple	etions by	district							
	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	TOTAL	10y average annual completions	Future annual requirement
Ashfield	652	575	283	362	352	412	434	454	425	558	4507	451	452
Bassetlaw	331	514	359	160	264	303	226	249	241	338	2985	299	435
Broxtowe	367	376	268	95	222	140	67	150	78	100	1863	186	362
Gedling		447	204	274	341	275	227	321	311	174	2574	286	426
Mansfield	583	269	216	224	359	265	206	296	254	388	3060	306	376
Newark and Sherwood	481	330	346	403	431	293	366	274	447	396	3767	377	740
Nottingham City	1318	1272	537	653	218	-22	309	166	658	741	5850	585	1009
Rushcliffe	261	456	493	191	227	293	209	199	373	487	3189	319	774
TOTAL	3993	4239	2706	2362	2414	1959	2044	2109	2787	3182	27795		
			The 10 y	ear averag	e numbe	er of comp	oletion is	1 351 whils	t the futur	e annual a	average re	equirement is 57	2.

TABLE 4: Comparison of past delivery against requirement

ASHFIELD DISTRICT: Comparison of past delivery against requirement Year on Year Completions (1st April to 31st March) Scenario A Scenario B Annual Annual requirement requirement **Net Dwelling** including excluding Difference Difference Year Completions **EMRP EMRP** (Scenario A) (Scenario B) 1/4/2002 - 31/3/2003 582 405 405 177 177 405 404 405 -1 1/4/2003 - 31/3/2004 1/4/2004 - 31/3/2005 361 405 -44 405 -44 548 405 143 405 143 1/4/2005 - 31/3/2006 92 247 652 560 405 1/4/2006 - 31/3/2007 1/4/2007 - 31/3/2008 575 560 15 405 170 283 405 560 -277 -122 1/4/2008 - 31/3/2009 362 560 405 -43 1/4/2009 - 31/3/2010 -198 1/4/2010 - 31/3/2011 352 560 -208 405 -53 412 314 98 314 98 1/4/2011 - 31/3/2012 434 1/4/2012 - 31/3/2013 314 120 314 120 454 480 480 1/4/2013 - 31/3/2014 -26 -26 425 480 480 1/4/2014 - 31/3/2015 -55 -55 558 480 78 480 78 1/4/2015 - 31/3/2016 544 480 64 480 64 1/4/2016 - 31/3/2017 Total 2002 - 2016 6946 6968 -22 6193 753 -0.3% 12.2% Shortfall Oversupply

3 Calculating the Five Year Supply

Delivery against the Core Strategy Housing Requirement

- 3.1 The council's previous housing delivery rates are set out below in Table 2.
- 3.2 When calculating the Council's housing land supply BDC has adopted the widely favoured 'Sedgefield method', whereby, in line with National Planning Practice Guidance, Local planning authorities should aim to deal with any undersupply within the first 5 years of the plan period where possible.
- 3.3 Although the Bassetlaw Core Strategy period runs from 2010-2028, the base year for the housing target from the RSS was 2006/07. Overall, in the ten year period up to 31 March 2016, including the 338 dwellings completed in 2015/16, 2,985 new dwellings have been delivered in Bassetlaw. This represents a cumulative under delivery of 685 dwellings.
- 3.4 While the above stated under delivery is initially based on the Core Strategy target of 350 dwellings per annum, from 2014/15 the target is revised upwards to at least 435 dwellings per annum. This new target is the objectively assessed housing need figure derived from the North Derbyshire & Bassetlaw SHMA (November 2013).

Year	Past Completions	Core Strategy Target	Over/Under Delivery	Cumulative Over/Under Delivery
2006/07	331	350	-19	-19
2007/08	514	350	164	145
2008/09	359	350	9	154
2009/10	160	350	-190	-36
2010/11	264	350	-86	-122
2011/12	303	350	-47	-169
2012/13	226	350	-124	-293
2013/14	249	350	-101	-394
2014/15	241	435	-194	-588
2015/16	338	435	-97	-685

Table 2: Bassetlaw District Council housing monitoring data

The Five Year Housing Requirement

3.5 Within the next five year period, in light of previous under delivery on both the annual Core Strategy housing target (350 dpa) and the updated objectively assessed housing need target (435 dpa), the revised basic annual target is 572 dwellings per annum (435 dpa + current cumulative shortfall, spread over five years). Further to this, due to persistent underdelivery, the NPPF (paragraph 49) stipulates an additional 20% buffer must be applied to the target, to provide a realistic prospect of achieving the planned supply and to ensure choice

Broxtowe Borough Council Strategic Housing Land Availability Assessment (SHLAA) 2015/16

consider a range of issues, such as the effect of imposed housing moratoriums and the delivery rate before and after any such moratoriums.

The assessment of a local delivery record is likely to be robust if a longer term view is taken, since this is likely to take account of the peaks and troughs of the housing market cycle...'

It is necessary therefore to look back over previous years at Broxtowe to consider whether any under-delivery in the provision of housing is persistent.

It is acknowledged that emerging plans take some time from their draft stage to adoption and nearly always have a 'start date' of several years before they were adopted. The table below shows housing delivery as measured against the most recently adopted development plan available at each year in question (2004 – 2016). The figures in bold represent the most recently adopted development plan available at the time.

Table 18: Housing delivery measured against adopted housing requirement

Year	1996	2006 Joint	2009 Regional	2014 Aligned	Net
	Structure Plan	Structure Plan	Plan	Core Strategy	Completions
	Review / 2004	requirement	requirement	requirement	-
	Broxtowe			-	
	Local Plan ⁸				
	requirement				
2004/5	275	210	340		315
2005/6	275	210	340		381
2006/7	275	210	340		367
2007/8	275	210	340		376
2008/9	275	210	340		268
2009/10	275	210	340		95
2010/11	275	210	340		222
2011/12	275	210	340	140	140
2012/13	275	210	340	60	67
2013/14	275	210	340	360	150
2014/15				360	78
2015/16				360	100
Total	2750	2100	3400	1280	2559

In a large housing site appeal decision for Broxtowe (Hempshill Hall), taken in January 2014, the Inspector concluded that;

"Levels of housing delivery within the Borough have been below the level of 340 since 2008/9. However immediately before the recession they had been in excess of that figure. Thus ... the performance in better times shows that this should not be taken as indicating a pattern of persistent under delivery. On that basis, I consider that the requirement should include a buffer of 5%".

The stance of the Appeal Inspector in terms of applying a 5% buffer was consistent with advice from the Planning Inspectorate⁹ which is that Councils should prepare supporting evidence to demonstrate that they have not persistently under delivered against past plans. The evidence could take reasonable account of macro-economic factors where housing delivery might have experienced an understandable drop/trough but where housing land has been available. It was

⁸ Plan adopted August 2004

⁹ PINS soundness advice visit to the Greater Nottingham Councils, August 2012, Inspector Keith Holland.

- Paragraph 97 of the Inspector's Report on the Aligned Core Strategy⁴ states "In general it would be ideal for housing completions over the full plan period to be the same in each year of a plan, in order to meet the emerging requirements or needs in full. Higher numbers might be necessary to make good any shortfalls in supply in the recent past (ideally in the early years using the Sedgefield approach)". The National Planning Practice Guidance states local planning authorities should aim to deal with any undersupply within the first five years of the plan period where possible.
- In the light of the Aligned Core Strategy Inspector's Report and national guidance, it is considered appropriate to apply the Sedgefield approach to assess housing land supply.

5% or 20% buffer

- To assess whether Gedling Borough has "a record of persistent under delivery of housing", it is important to look at the long term trend over an economic cycle. The Aligned Core Strategy was adopted in September 2014 so housing delivery against previous development plans also need to be assessed.
- The East Midlands Regional Plan was adopted in March 2009 and set a housing requirement of 8,000 homes for the period 2006 to 2026 (equating to an annual requirement of 400 homes). The Aligned Core Strategy sets a housing requirement of 7,250 homes for the period 2011 to 2028, but provides different annual targets through the plan period, as shown in Table 1. **Table 2** shows that the number of new homes completed between 2011 and 2013 exceeded the Aligned Core Strategy target for those years. The number of net homes completed between 2013 and 2017 falls short of the Aligned Core Strategy target for those years.

Table 2: Gedling's net completions (cumulative) in the last 10 years

	J	Net completions (annual)	Net completions (cumulative)	Plan target	% of target
East	2007/08	447	743	800	93 %
Midlands	2008/09	204	947	1,200	79 %
Regional	2009/10	274	1,221	1,600	76 %
Plan	2010/11	341	1,562	2,000	78 %
	2011/12	275	275	250	110 %
	2012/13	227	502	500	100 %
Aligned Core	2013/14	321	823	940	88 %
Strategy	2014/15	311	1,134	1,380	82 %
	2015/16	174	1,308	1,820	72 %
	2016/17	198	1,506	2,260	67 %

⁴ http://www.gngrowthpoint.com/media/361914/broxtowe__gedling___nottingham_city_final_acs_inspectors_report_-july_2014.pdf

Historic Completion and Supply Rates

Figure 8.										
Period	Gro	ss Completi	ons	Total Losses			Ne	Supply		
	Warsop Parish	Mansfield	District Total	Warsop Parish	Mansfield	District Total	Warsop Parish	Mansfield	District Total	
1991/1992	Not Recorded	Not Recorded	240	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
1992/1993	Not Recorded	Not Recorded	371	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
1993/1994	Not Recorded	Not Recorded	362	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
1994/1995	Not Recorded	Not Recorded	335	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
1995/1996	Not Recorded	Not Recorded	338	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
1996/1997	Not Recorded	Not Recorded	274	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
1997/1998	Not Recorded	Not Recorded	287	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
1998/1999	Not Recorded	Not Recorded	211	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
1999/2000	Not Recorded	Not Recorded	226	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
2000/2001	Not Recorded	Not Recorded	158	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
2001/2002	Not Recorded	Not Recorded	286	Not Recorded	Not Recorded	18	Not Recorded	Not Recorded	268	Not Recorded
2002/2003	Not Recorded	Not Recorded	373	Not Recorded	Not Recorded	0	Not Recorded	Not Recorded	373	3416
2003/2004	Not Recorded	Not Recorded	350	Not Recorded	Not Recorded	5	Not Recorded	Not Recorded	345	3443
2004/2005	Not Recorded	Not Recorded	336	Not Recorded	Not Recorded	172	Not Recorded	Not Recorded	164	3350
2005/2006	Not Recorded	Not Recorded	441	Not Recorded	Not Recorded	116	Not Recorded	Not Recorded	325	3897
2006/2007	Not Recorded	Not Recorded	631	Not Recorded	Not Recorded	48	Not Recorded	Not Recorded	583	3572
2007/2008	Not Recorded	Not Recorded	285	Not Recorded	Not Recorded	17	Not Recorded	Not Recorded	268	3650
2008/2009	Not Recorded	Not Recorded	253	Not Recorded	Not Recorded	37	Not Recorded	Not Recorded	216	3290
2009/2010	Not Recorded	Not Recorded	469	Not Recorded	Not Recorded	245	Not Recorded	Not Recorded	224	4306
2010/2011	Not Recorded	Not Recorded	371	Not Recorded	Not Recorded	12	Not Recorded	Not Recorded	359	3096
2011/2012	57	212	271	0	6	6	57	206	265	5310
2012/2013	53	151	209	0	3	3	53	148	206	5640
2013/2014	78	203	297	0	1	1	78	202	296	5622
2014/2015	59	174	255	0	1	1	59	173	254	5372
2015/2016	70	305	389	0	1	1	70	304	388	
Total	317	1045	8018	0	12	682	317	1033	4534	
Average	63	209	321	0	2	45	63	207	302	

N.B. 2006/2007, 2013/2014 shows artificially high completion rates due to inclusion of dwellings actually completed in previous years which were found during an overhaul of the monitoring system.

Section Four

District Completions and Losses Data

Figure 8: Net Completions by Year

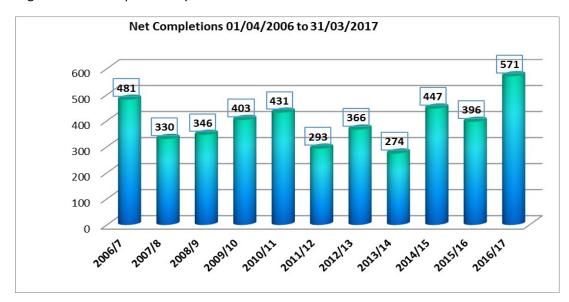


Figure 8 provides comparison data for net completions for the plan period from 01/04/2006 to 31/03/2017

Figure 9 provides comparison data for net and gross completions and losses for the plan period from 2006 onwards.

The average gross completion rate from 2006 is **411** dwellings each year.

The average net completion rate from 2006 is **394** dwellings each year.

Figure 9: Gross Completions and Losses by Year

Year	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Gross Completions	484	333	348	405	433	335	383	312	462	440	585
Losses	3	3	2	2	2	42	17	38	15	44	14
Net Completions	481	330	346	403	431	293	366	274	447	396	571

^{*} Losses are higher from 2011/12 onwards due to a change in the way that they are recorded, this involves recording the loss during the year it happens, previously losses were recorded once the development was complete. In 2015/16 the replacement dwelling monitoring was amalgamated so losses are higher again this year where dwellings have been demolished but the replacement is yet to be completed.

Appendix D

April to March	Gross comps exc. Student dwellings	Demolitions	Net comps exc. Student dwellings	dwellings (net)	Net comps inc. student dwellings	1991 to 2011	•	0 p.a. Gross d Oct 1997***		•	p.a. Net 2001 d Feb 2006	_	•	p.a. Net 2006 March 2009	Aligned Core 2011 to 2013, adopted	880 Net	
						Required (cumulative)		Actual minus required	Required (cumulative)	Actual	Actual minus required	Required (cumulative)	Actual	Actual minus required	Required (cumulative)	Actual	Actual minus required
1997-98	380	-	-	-	-	2,800	3,713		-	_	-	-	-	-	-	-	
1998-99	414	-	-	-	-	3,200	4,127	927	-	-	_	-	-	-	-	-	
1999-2000	473	-	-	-	-	3,600	4,600	1,000	-	-	_	-	-	-	-	-	
2000-01	373	13	360	6	366	4,000	4,973	973	-	-	_	-	-	-	-	-	
2001-02	1140	22	1,118	6	1,124	4,400	6,113	1,713	-	-	_	-	-	-	-	-	
2002-03	808	22	786	279	1,065	4,800	6,921	2,121	-	-	_	-	-	-	-	-	
2002-03	1124	21	1,103	229	1,332	5,200	8,045	2,845	-	_	-	-	-	-	-	-	
2004-05	1254	200	1,054	132	1,186	5,600	9,299	3,699	-	-	-	-	-	-	-	-	
2005-06	1453	399	1,054	1,003	2,057	-	-	-	4,625	5,115	490	-	-	-	-	-	
2006-07	1574	256	1,318	205	1,523	-	-	-	5,550	6,433	883	-	-	-	-	-	
2007-08	1382	110	1,272	88	1,360	-	-	-	6,475	7,705	1,230	-	-	-	-	-	
2008-09****	573	36	537	213	750	-	-	-	-	-	-	3,000	3,633	633	-	-	
2009-10	789	136	653	259	912	-	-	-	-	-	-	4,000	4,545	545	-	-	
2010-11	476	258	218	96	314	-	-	-	-	-	-	5,000	4,859	-141	-	-	
2011-12	279	301	-22	444	422	-	-	-	-	-	-	6,000	5,281	-719	-	-	
2012-13*	369	60	309	490	799	-	-	-	-	-	-	-	-	-	950	1,221	27
2013-14*	524	358	166	297	463	-	-	-	-	-	-	-	-	-	1,830	1,684	-146
2014-15	662	4	658	364	1,022	-	-	-	-	-	-	-	-	-	2,710	2,706	-4
2015-16	748	7	741	206	947										3,590	3,653	60
* There was	no adopted plan a	at 31/3/13 or 3	1/3/14.														
** Local Plai	n says actual com	pletions to Dec	ember 1995 we	ere 2,937. 19	96/97 has bee	en added to his	S.										

54 Modified March 2017

5 Key monitoring indicators

Housing requirement and delivery

5.1 The housing requirement for the Borough, including the methodology for calculating 5 year land supply, is set by Policy 3 of the Core Strategy. The policy requires the delivery of a minimum of 13,150 new homes between 2011 and 2028, identifying that the following phases of housing delivery will be used for monitoring purposes:

2012 – 2013	2014 – 2018	2019 – 2023	2024 - 2028
500	2,350	6,500	4,100
250 per annum	470 per annum	1,300 per annum	820 per annum

Housing completions 2011-2016

5.2 Monitoring of new housing development takes part as the Council's Housing Land Availability (HLA) review. This includes a full list of all extant planning approvals and tracks completions over the period April to March each year. The 2016 HLA report is included in this report as **Appendix 1**.

2011/12	2012/13	2013/14	2014/15	2015/16	Total completions over plan period
293	209	199	373	487	1,561

Table 4.4a: Additional Dwellings Rushcliffe - Total

In	dicator	05/06	06/07	07/08	08/09	09/10	10/11	11/12 Curr	12/13 Y1	13/14 Y2	14/15 Y3	15/16 Y4	16/17 Y5	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
H2a		261	456	493	191	227																
H2b							216															
H2c	Net Additions							233	258	318	370	372	549	488	326	216	112	140	20	12	149	18
	Target								942	994	1051	1113	1187									
H2d							n/a as Core Strategy has not been adopted.															

Table 4.4b: Additional Dwellings Rushcliffe – Nottingham Principal Urban Area

lr	ndicator	05/06	06/07	07/08	08/09	09/10	10/11	11/12 Curr	12/13 Y1	13/14 Y2	14/15 Y3	15/16 Y4	16/17 Y5	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
H2a		56	216	85	21	9																
H2b							9															
H2c	Net Additions							28	63	106	133	200	315	240	220	163	100	100	0	12	149	18
20	Target								731	782	839	903	973									
H2d												n/a as	Core Strat	eav has n	ot been ac	donted						

Table 4.4c: Additional Dwellings Rushcliffe - Rural

IUN	<i>7</i> 10 T.TU.	Madit	Ollul E	, 11 C IIII	igo i la			ai ai														
In	dicator	05/06	06/07	07/08	08/09	09/10	10/11	11/12 Curr	12/13 Y1	13/14 Y2	14/15 Y3	15/16 Y4	16/17 Y5	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
H2a		205	240	408	170	218																
H2b							207															
H2c	Net Additions							205	191	209	237	172	234	248	106	53	59	87	67	47	47	47
1120	Target								211	212	213	210	214									
H2d												n/a as	Core Strat	teav has n	ot been ac	lopted.						

Table 3, East Midlands and S	. Yorks, an	nual aggr	egate produ	uction by	county							
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Current output compared with 2006 output
Nottinghamshire	3.15	2.97	2.37	1.27	1.56	1.71	1.55	1.39	1.43	1.52	1.27	40%
Lincolnshire	3.37	2.47	2.27	1.99	1.79	1.92	1.85	1.88	2.15	2.19	2.17	
Leicestershire	1.27	1.33	1.09	0.83	0.91	0.92	0.91	1.1	1.45	1.41	1.5	110%
Derbyshire	1.2	1.22	1.1	0.91	1.04	1.1	0.81	0.82	0.95	1.13	1.29	108%
Northamptonshire	0.43	0.36	0.25	0.17	0.22	0.24	0.4	0.51	0.52	0.27	0.4	93%
East Midlands RAWP area	9.92	8.91	7.54	5.5	5.83	6.23	5.88	6.04	6.85	6.9	6.95	70%
S. Yorkshire	0.5	0.4	0.4	0.5	0.16	0.14	0.14	0.15	0.14	0.4		80%

Table 4 Nottinghamshire permitted reserves (Oct 2017 LAA) and draft MLP allocations by area.

	Tonnage	Operator
	MT	·
North Notts (Idle Valley)		
Permitted reserves		
Finningly	0.45	Tarmac
Scrooby	0.72	Rotherham Sand and Gravel
Mission Bawtry Road	0.60	Rowley
Mission West	0.03	Hanson
Sturton le steeple	7.5	Tarmac
Draft MLP Allocations		
Bawtry Road west	0.18	Mission Sand and Gravel
Scrooby Thompson Land	0.40	Rotherham Sand and Gravel
Scrooby North	0.39	Rotherham Sand and Gravel
Botany Bay	2.44	Tarmac
TOTAL for North Notts	12.71MT	
Newark		
Permittedreserves		
Girton	3.56	Tarmac
Langford Lowfields	1.35	Tarmac
Besthorpe	0.5	Tarmac
Cromwell	2.4	Cemex
Draft MLP allocations		
Langford Lowfields south	3.60	Tarmac
and west		
Langfield Lowfields North	4.70	Tarmac
TOTAL for Newark	16.11MT	
South Notts		
Permitted reserves		
East Leake	2.34	Cemex
Draft MLP allocation		
East Leake	0.75	
Mill Hill	3.00	London Rock
TOTAL for South Notts	6.09MT	
TOTAL	34.91MT	

^{24.10} MT controlled by one operator which represents 69% of the landbank for the County .



Sand and Gravel Provision

Emissions Footprint

Nottinghamshire

For Brett Aggregates Ltd













Quality Management

Jon Pullen			
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		F	Revision History	
Rev	Date	Status	Reason for revision	Additional comments
0	22/10/2014	Draft	:≖	 0

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Executive Summary

In October 2013, Nottinghamshire County Council (NCC) published *Minerals Local Plan – Preferred Approach Consultation* which set out the broad policy principles for mineral development in Nottinghamshire between 2012 and 2030. The plan identified three distinct areas for sand and gravel production: North Nottinghamshire, Newark and South Nottinghamshire. The largest growth in the County is likely to be in Nottingham City and the surrounding area.

Brett Aggregates Ltd responded to the consultation in December 2013 pointing out that sand and gravel extracted from sites in the north of the County and the Newark area would have to be transported long distances to reach Nottingham, the area with the largest demand. Brett Aggregates Ltd suggested that construction and development needs in and around Nottingham, throughout the plan period, would be better met by mineral resources closer to this potential market. Specifically, potential extraction sites were identified at Shelford East and Shelford West.

This report considers the traffic-related emissions savings that could be achieved from transporting sand and gravel from Shelford East and/or West compared with transporting sand and gravel from sites in North Nottinghamshire or the Newark area.

There are emission reductions in all traffic-related pollutants savings when sand and gravel is transported from Shelford. The greatest emissions savings relate to carbon dioxide (CO₂): the calculated emissions assuming the sand and gravel are transported from Shelford are less than half of the emissions assuming that the same mass of sand and gravel are transported from Newark and less than 20% of the emissions assuming that the same mass of sand and gravel are transported from North Nottinghamshire.

The report has been produced based upon appropriate information provided by Brett Aggregates Ltd and its project team. In preparing this report, RPS experts have exercised professional skills and judgement to the best of their abilities and have given professional opinions that are objective, reliable and backed with scientific rigour. These professional responsibilities are in accordance with the code of professional conduct set by the Institution of Environmental Sciences for members of the Institute of Air Quality Management (IAQM).

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Figure 1: Shelford East/West to Nottingham

Figure 2: Coddington to Nottingham

Figure 3: North Nottinghamshire to Nottingham

1 Introduction

- 1.1 In October 2013, Nottinghamshire County Council (NCC) published *Minerals Local Plan Preferred Approach Consultation* which set out the broad policy principles for mineral development in Nottinghamshire between 2012 and 2030. The plan identified three distinct areas for sand and gravel production: North Nottinghamshire, Newark and South Nottinghamshire. The largest growth in the County is likely to be in Nottingham City and the surrounding area.
- 1.2 In December 2013, Brett Aggregates Ltd responded to the consultation identifying that sand and gravel extracted from sites in the north of the County and Newark would have to be transported long distances to reach Nottingham, the area with the largest demand. Brett Aggregates Ltd suggested that construction and development needs in and around Nottingham, throughout the plan period, would be better met by mineral resources closer to this potential market. Specifically, potential extraction sites were identified at Shelford East and Shelford West.
- 1.3 This report considers the traffic-related emissions savings that could be achieved from transporting sand and gravel from Shelford East and/or West compared with transporting sand and gravel from sites in North Nottinghamshire or Newark.

2 Approach to Quantifying Emissions

Background

2.1 Table 2.1 provides a comparison of the supply and demand proportions of sand and gravel in the three locations identified by NCC.

Table 2.1 Comparison of the Supply and Demand Proportions of Sand and Gravel

Area	Sand and Gravel Resources - Supply	Housing Requirement - Demand
Newark	68%	16%
South Nottinghamshire	13%	56%
North Nottinghamshire	19%	18%
Total	100%	100%

- 2.2 It can be seen that the highest housing demand is in South Nottinghamshire, where the currently proposed allocation of mineral reserves is lowest.
- 2.3 Traffic-related pollutant emissions have been calculated for transporting sand and gravel to the city of Nottingham where the majority of the construction and development will take place, from mineral extraction sites in North Nottinghamshire, the Newark area and East/West Shelford.

Information and Assumptions Used in Calculations

Modes of Transport

- 2.4 Each of the Shelford sites is capable of producing 500,000 tonnes per annum. The sites would be worked consecutively. When the first site is exhausted, extraction would commence at the second site.
- 2.5 The Shelford sites are in close proximity to the River Trent. It is proposed that 180,000 tonnes per annum would be transported by barge along the River Trent as far as Colwick Wharf in Nottingham. The remaining 320,000 tonnes per annum would be transported by heavy goods vehicles (HGVs) via the A6097 to Nottingham. A conveyor would be used to transport the extracted minerals from the sites to the River Trent or the A6097. The routes assumed to be taken by the HGVs and the barges are illustrated in Figure 1.
- 2.6 The key-traffic related pollutants are nitrogen oxides (NO_X), particulate matter (PM₁₀) and carbon dioxide (CO₂). Emissions of NO_X and PM₁₀ are associated with respiratory and cardiovascular adverse health effects on a local level. Emissions of CO₂ are associated with climate change effects on a regional level. Emissions of NO_X, PM₁₀ and CO₂ associated with the transportation of 500,000 tonnes of sand and gravel from Shelford to Nottingham have been calculated.

- 2.7 For the purposes of calculating the number of barges from the proposed Shelford site, it has been assumed that each barge has a capacity 300 tonnes and that each barge will be fully loaded on the out-bound trip.
- 2.8 For the purposes of calculating the number of HGVs from the proposed Shelford site, it has been assumed that each HGV has a capacity 20 tonnes. Again, it has been assumed that each HGV will be fully loaded on the out-bound trip. Emissions factors for road vehicles are speed-dependent and it has been assumed that all HGVs will travel at 40 miles per hour (64 km per hour).
- 2.9 The calculated emissions associated with transporting sand and gravel from Shelford have been compared with the emissions associated with transporting the same amount of sand and gravel (500,000 tonnes) from Newark to Nottingham and from North Nottinghamshire to Nottingham. For Newark sites, the calculations assume that the sand and gravel will be extracted at Coddington; however, consideration has also been given to the extraction from sites at Collingham and Cromwell.
- 2.10 It is assumed that all transportation from Newark and North Nottinghamshire would be by road.
- 2.11 The routes are illustrated in Figures 2 and 3 respectively. To allow a direct comparison with the calculations for Shelford, the same assumptions have been made in all scenarios.

Emissions factors

Heavy Goods Vehicles

2.12 Speed-related HGV emissions have been drawn from Defra's 2014 emission factor toolkit (version 6.0) which uses emissions generated by the European Environment Agency (EEA) COPERT 4 (v10) emission calculation tool.

Barges

2.13 Emissions factors for inland waterway journeys are not readily available. A literature review has been undertaken to find sources of emissions. For barges, emissions are generally provided as a mass per tonne.km. The results of the literature review are summarised in Table 2.2 below.

Table 2.2 Summary of Published Emissions to Air from Barges (grammes per tonne.km)

Pollutant	Emissions in grammes per tonne.km		
	WWF	EU	CEFIC
NO _X	0.72	0.95	-
PM	0.038	0.03	-
CO ₂	48.50	-	31

WWF = World Wide Fund for Nature (2005) Literature Review: Inland Navigation and Emissions

EU = EU Transport GHG: Routes to 2050? (February 2012) Development of a better understanding of the scale of co-benefits associated with transport sector GHG reduction policies

CEFIC = European Chemical Industries Council (March 2011) Guidelines for Measuring and Managing CO₂ Emission from Freight Transport Operations

- 2.14 For NO_x, the EU data source provides a slightly higher emission than the WWF. For PM₁₀, the data sources provide very similar emissions. There is less agreement in the available emissions published for CO₂.
- 2.15 To ensure that the emissions assumptions for the Shelford scenario are conservative, the highest reported emission rate has been used in each case. The emissions used in the calculations are set out in Table 2.3.

Table 2.3 Emissions to Air from Barges (grammes per tonne.km) - Used in Calculations

Pollutant Emitted	Emissions (grammes per tonne.km)	Source
NO _X	0.95	EU
PM	0.038	WWF
CO ₂	48.5	WWF

2.16 As barge emissions are related to load as well as distance, the barges are assumed to be fully laden on their journey to Nottingham and assumed to have a 1 tonne load for the return journey.

3 Results of Emissions Quantification

3.1 Table 3.1 summarises the total emissions calculated for the three options for providing 500,000 of sand and gravel to Nottingham.

Table 3.1 Summary of Calculated Emissions in Kg per Annum

	Atmospheric Emissions (kg per annum) - for Transporting 500,000 Tonnes of Sand and Gravel to Nottingham		
Scenario	NO _X	РМ	CO ₂
Shelford East/West to Nottingham	3,725 (2,388)	180 (96)	470,885 (121,927)
Newark (Coddington) to Nottingham	4,385	276	1,144,774
North Nottinghamshire to Nottingham	9,502	598	2,480,659

The amounts shown in parentheses for Shelford East/West to Nottingham relate are the barge emissions.

- 3.2 It should be clear that the emissions for transporting 500,000 tonnes of sand and gravel from Shelford to Nottingham are considerably lower for all pollutants than the emissions associated with transporting the same mass of sand and gravel from with Coddington or North Nottinghamshire.
- 3.3 As set out in Section 2, emissions of NOx and PM₁₀ are associated with respiratory and cardiovascular adverse health effects on a local level. Emissions of CO₂ are associated with climate change effects on a regional or global level.
- 3.4 For the Shelford Sites, 36 % (180,000 tonnes out of a total of 500,000 tonnes) of the sand and gravel extracted each year would be transported by barge. For CO₂, the emissions associated with transporting this material by barge are 26 % (121,927 /, 470,885) of the total emissions for this scenario. This demonstrates that the use of barges to transport the material is beneficial in terms of climate change effects on a regional or global level.
- 3.5 For NO_x and particulate matter, the barges contribute a greater proportion of the total; however, these are local pollutants and moving the transportation off the local road network and onto inland waterways is likely to be beneficial as roadside pollutant concentrations are likely to be reduced when compared with the use of HGVs as a sole means of transportation.
- 3.6 The greatest emissions savings relate to CO₂. In the case of CO₂, the emissions for transporting sand and gravel from Shelford are less than half of the emissions for transporting sand and gravel from Coddington and less than 20% of the emissions assuming the sand and gravel are transported from North Nottinghamshire.
- 3.7 Further analysis has been undertaken to quantify the emissions for the scenarios of the sand and gravel in Newark having been extracted from sites at Collingham and Cromwell. The calculated emissions are provided in Table 3.2.

Table 3.2 Summary of Calculated Emissions in Kg per Annum

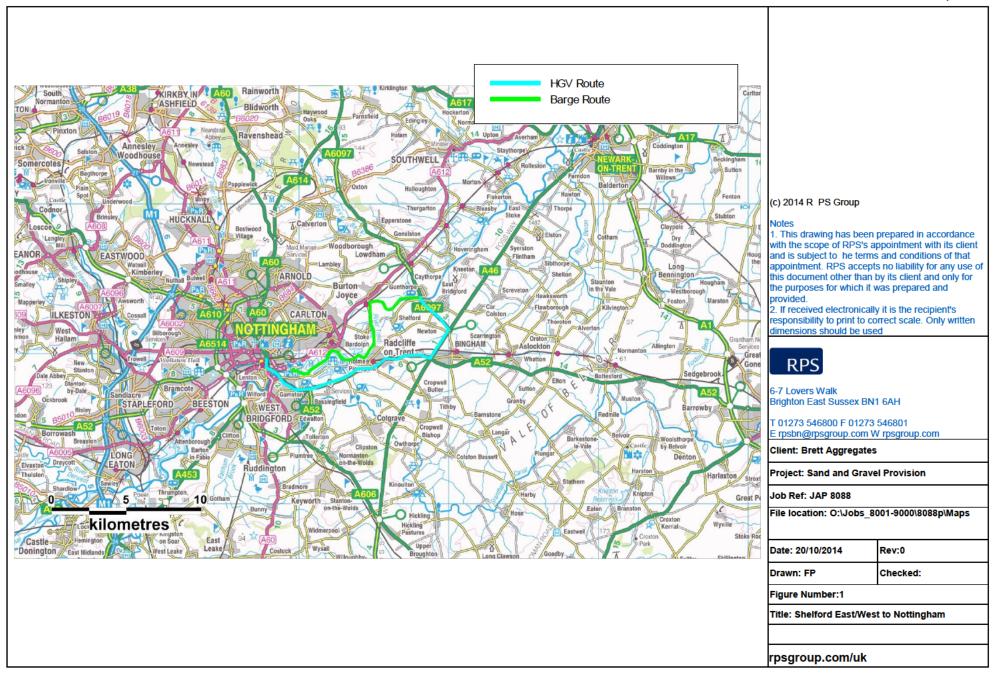
	Atmospheric Emissions (kg per annum) - for Transporting 500,000 Tonnes of Sand and Gravel to Nottingham		
Scenario	NO _X	PM	CO ₂
Shelford East/West to Nottingham	3,725	180	470,885
Newark (Coddington) to Nottingham	4,385	276	1,144,774
Newark (Collingham) to Nottingham	4,829	304	1,260,731
Newark (Cromwell) to Nottingham	4,806	303	1,254,557
North Nottinghamshire to Nottingham	9,502	598	2,480,659

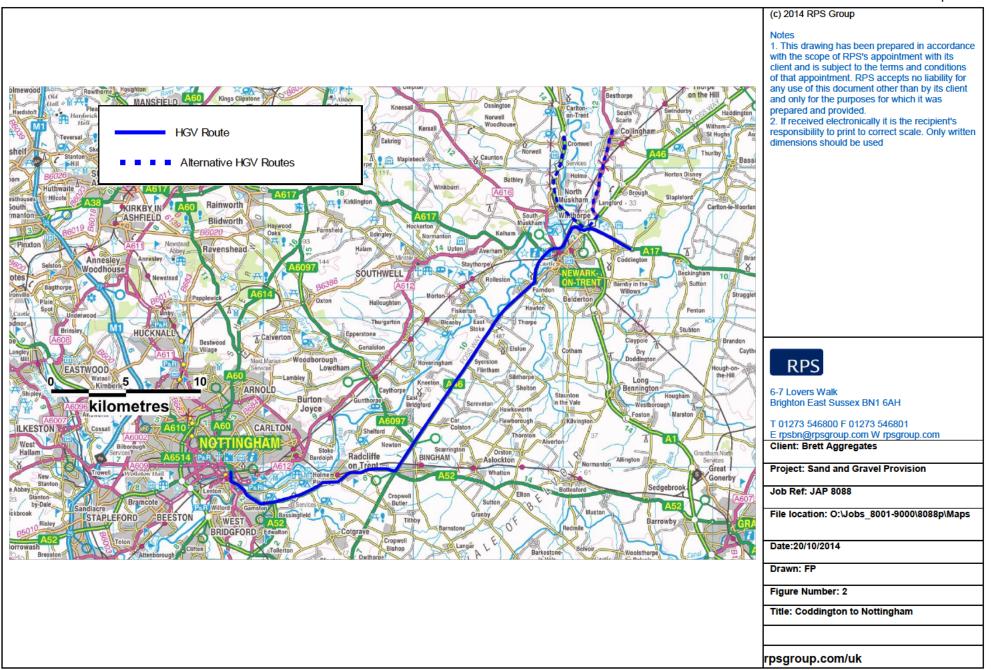
3.8 When the sand and gravel in Newark is extracted from sites at Collingham or Cromwell, the emissions are greater than if the sand and gravel is extracted from Coddington; however, for all sites in Newark, the transport-related emissions exceed those associated with the Shelford sites.

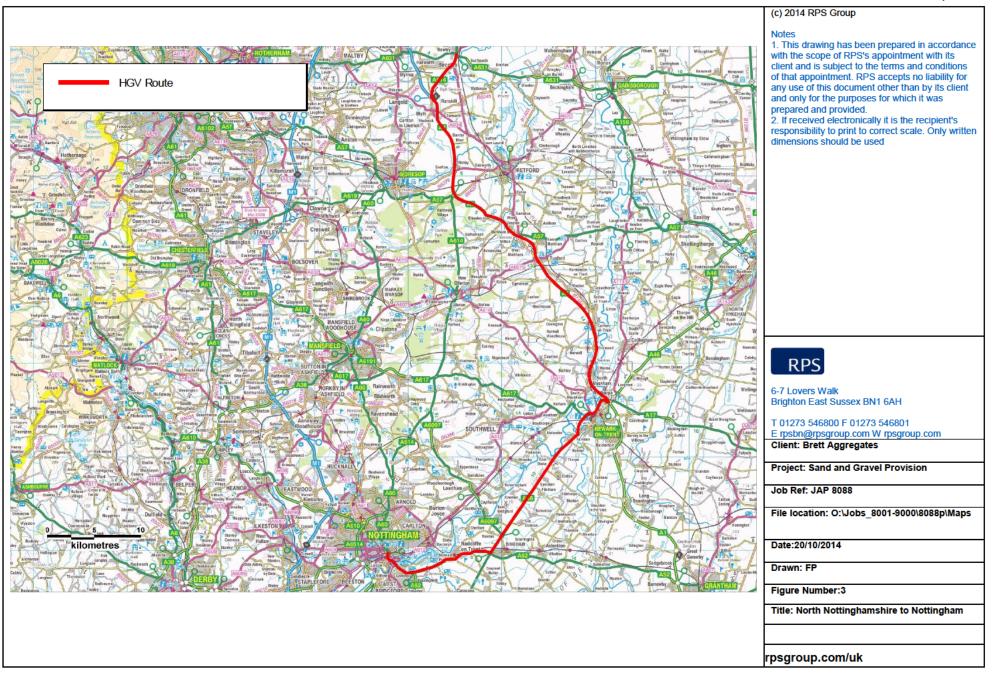
4 Conclusion

- 4.1 In October 2013, Nottinghamshire County Council (NCC) published *Minerals Local Plan Preferred Approach Consultation* which set out the broad policy principles for mineral development in Nottinghamshire between 2012 and 2030. The plan identified three distinct areas for sand and gravel production: North Nottinghamshire, Newark and South Nottinghamshire. The largest growth in the County is likely to be in Nottingham City and the surrounding area.
- 4.2 Brett Aggregates Ltd responded to the consultation in December 2013 pointing out that sand and gravel extracted from sites in the north of the County and the Newark area would have to be transported long distances to reach Nottingham, the area with the largest demand. Brett Aggregates Ltd suggested that construction and development needs in and around Nottingham, throughout the plan period, would be better met by mineral resources closer to this potential market. Specifically, potential extraction sites were identified at Shelford East and Shelford West.
- 4.3 This report considers the traffic-related emissions savings that could be achieved from transporting sand and gravel from Shelford East and/or West compared with transporting sand and gravel from sites in North Nottinghamshire or the Newark area.
- The calculations demonstrate that for all traffic-related pollutants, emissions are reduced when sand and gravel is transported from Shelford. The greatest emissions savings relate to CO₂: the calculated emissions assuming the sand and gravel are transported from Shelford are less than half of the emissions assuming that the same mass of sand and gravel are transported from Coddington, near Newark, and less than 20% of the emissions assuming that the same mass of sand and gravel are transported from North Nottinghamshire.
- 4.5 When the sand and gravel in Newark is extracted from sites at Collingham or Cromwell, the emissions are greater than if the sand and gravel is extracted from Coddington; however, for all sites in Newark, the transport-related emissions exceed those associated with the Shelford sites.

Figures



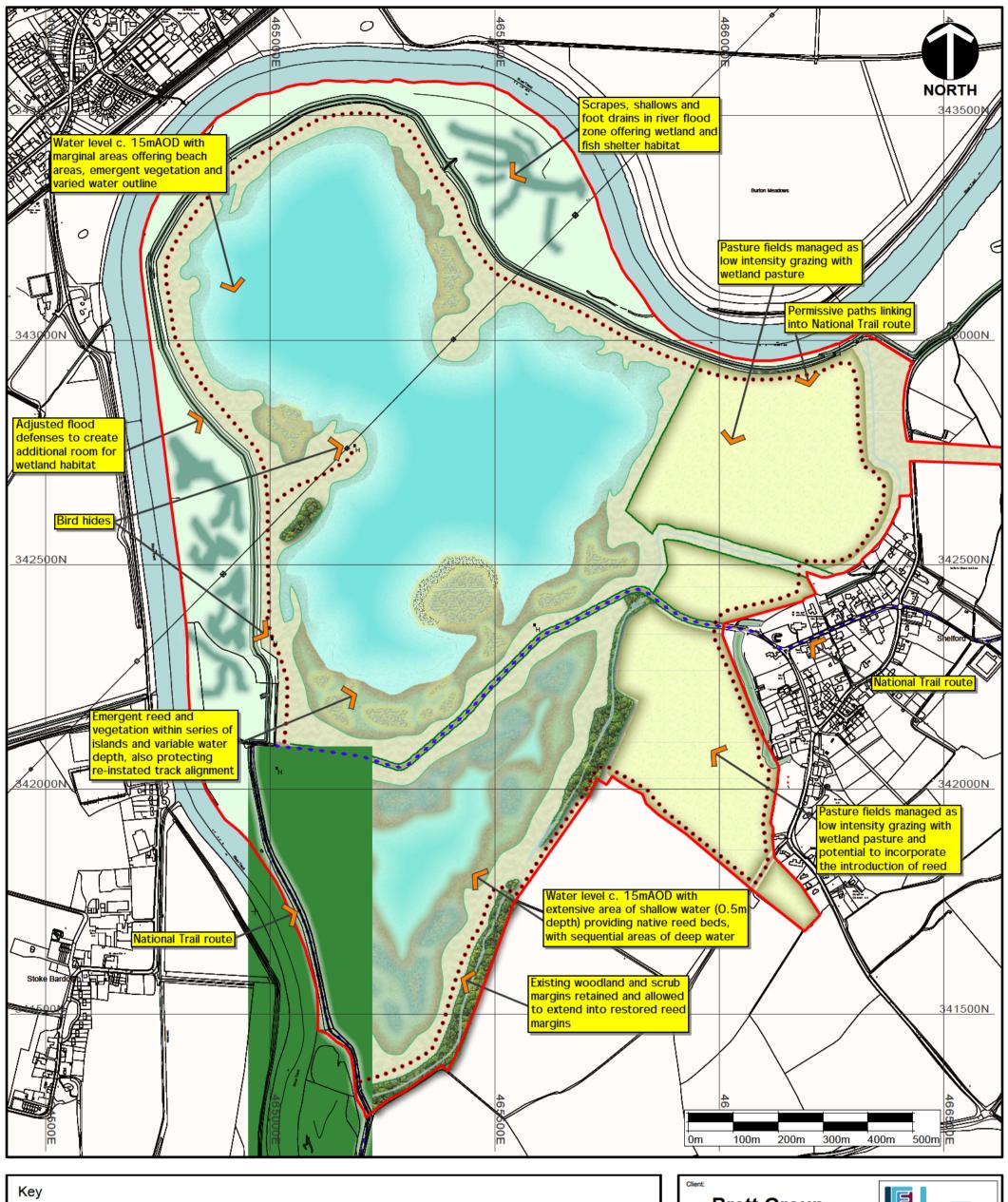


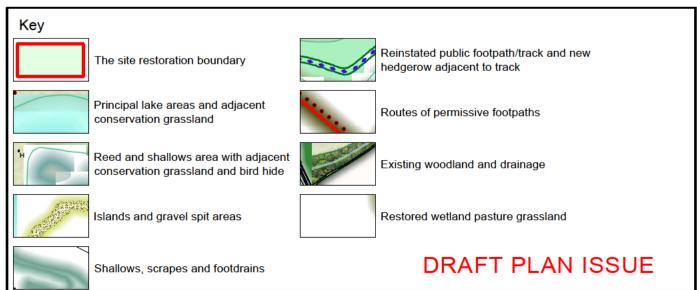




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Appendix 5







Appendix 6

Ecological surveys Environmental Impact Assessment Protected Species Expert Witness Appropriate Assessment Legal and Policy Compliance

Management Planning Environmental Planning Guidance Habitat Creation and Restoration Biodiversity Audit Strategic Ecological Advice

Wetland Conservation Sustainable Drainage Systems Integrated Constructed Wetlands Ecosystem Services Species Conservation



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31st August 2018 Our Ref: SW18/E1343/JOL1

Dear Ms Owen,

Land at Shelford, Nottinghamshire – Summary of Ecological Surveys and Restoration

We understand that Nottinghamshire County Council (NCC) are in the process of reviewing their Minerals Local Plan (MLP) and have recently issued a revised draft of this for consultation. This latest draft no longer includes the allocation of the above site for the working and winning of sand and gravel. In light of this changed position for the allocation at Shelford you have requested a summary of the ecological surveys undertaken at the site, their initial findings and the broad picture of the ecological resource that has to date been found. Details of initial discussions with various stakeholders regarding the likely restoration and end use for the site are also provided.

Background

Bioscan first surveyed the site in 2005 to provide a broad assessment of the likely ecological constraints and opportunities that exist on the site based on the results of an extended Phase 1 survey undertaken at that time. Since this and following the subsequent allocation of the site in the 2016 Submission Draft MLP, Bioscan were commissioned in the latter half of 2015 to commence with a suite of surveys in the lead up to the submission of a planning application to work the site. Whilst preparation of the application was put on hold mid-2016 following the decision by NCC to withdraw the Submission Draft MLP, the site had by that point been visited by Bioscan on numerous occasions, with specific surveys covering winter and breeding birds, bats (including building inspections and emergence/re-entry surveys, transect surveys and remote detector surveys), and eDNA analysis of existing waterbodies for great crested newt presence or absence, also completed by that stage.

Initial assessment and likely constraints

Whilst full analysis of the data collected in 2015/16 was also put on hold pending the MLP review, a broad picture of the site was nevertheless achieved and which found it to be characterised largely by intensively managed arable land defined by hedgerows and/or ditches (including the Hams Dyke), together with pockets of plantation woodland, scrub, species-poor pasture, a pond and the small farm complex known as The Holmes. These habitats were generally noted to be of low ecological interest in their own right, appearing to lack notable floral interest, most likely as a consequence of their management at that time. Furthermore, areas or features within the site noted as potentially having an elevated interest and that would be likely to be removed by the working of this site, for example associated with the hedgerows, it was considered unlikely that this would be sufficient raise the value these above that of the immediate site level.

With regard to the faunal surveys completed, the winter and breeding bird surveys identified an assemblage of bird species that reflect the general intensively managed arable nature of the site, with relatively common winter species recorded including maximum counts of 65 mute swan, 62 lapwing, 62 fieldfare and 70 redwing recorded over the 2015/16 winter. Given the size of the site studied a rather poor collection of breeding species was recorded,

including species with an elevated conservation status such as dunnock which was likely to have held the highest number of breeding territories on the site in 2016 at an estimated 14-18. In addition, 10-14 skylark territories, 2-5 linnet territories and just 2-4 yellowhammer territories were also recorded.

A similar picture was gathered as to the use of the site by bats, with common and soprano pipistrelle likely to have formed the bulk of the bat registrations recorded during the transect and remote detector surveys, with generally restricted use of the site by other species such as noctule and *Myotis* species.

Lastly, all of the eDNA tests undertaken of the waterbodies within and surrounding the site returned a result of 'negative' for great crested newt eDNA indicating that this species was unlikely to have been active within these in 2016.

On the basis of the above, albeit incomplete, baseline the overall impression of this site is one of an area that is unlikely to support floral or faunal interest that would represent a fundamental constraint on the principle of the site being worked and no overriding ecological constraint on the working of the site has at this stage been identified. Furthermore, given the predominance of arable land, were an ecological constraint or interest feature to be identified in due course it is unlikely that it would preclude entirely the working of the site, with retention, mitigation or as a last resort compensation likely to be achievable if necessary.

Restoration proposals

As part of the work to prepare the planning application, meetings/workshops were held with various stakeholders to discuss the possible restoration and future end use for the site. Two such meetings were held, on 22nd July and 10th November 2016, attended by Nottinghamshire County Council (including officers from both the planning and ecology departments), Nottinghamshire Wildlife Trust, the RSPB and the Environment Agency, as well as those from the team working on behalf of Brett.

At these meetings, broad agreement was reached that an ecology-led restoration should be pursued and, at least initially, a scheme based on the removal of the flood bund to allow the site to become a more active part of the flood plain of the adjacent River Trent by more regular inundation, was preferred to 'undo' some of the past interventions that have resulted in the river being heavily engineered and having little associated riparian habitat. On this basis, MJCA undertook flood modelling to assess the impact of removing the flood bund. This highlighted a conflict downstream for flood events below the 1:100 year event, such that there was an increased risk of flooding downstream including areas with existing residential properties. As such an increase in flood risk would be considered unacceptable, various options for more minor changes to the flood bund were also modelled to assess the scope to achieve positive ecological benefits without increasing flood risk. This demonstrated that some changes to the flood defences immediately adjoining the river could be accommodated to reduce the engineered profile of the bank and provide for habitat improvement including increased fish breeding.

With the requirement to retain the flood bund largely in its current location shown to be required based on this modelling, a restoration proposal was developed taking this into account, with a focus in particular on birds and creating relatively largescale habitats to avoid habitat packing. This draft restoration proposal is attached. A number of features highlighted during the meetings as being key for the restoration are shown, including: a large reedbed, created using overburden and soils to raise the lake bed within the excavation post-extraction; creation of islands to provide predator free roosting and nest sites for birds; a variable profile to the lake edges to encourage the development of marginal vegetation; stripping of surface soils on unworked land to provide both additional material for the reedbed creation and to create wet meadow habitat to complement the water-based features; wet woodland/scrub habitat at the interface between the reedbed and off-site woodland to provide habitat for species such as Cetti's warbler; and reprofiling the river bank and existing flood zone to create shallow inlets, scrapes and foot drains to provide habitat to support nesting by wading species and sheltered, slow water for fish. Whilst further

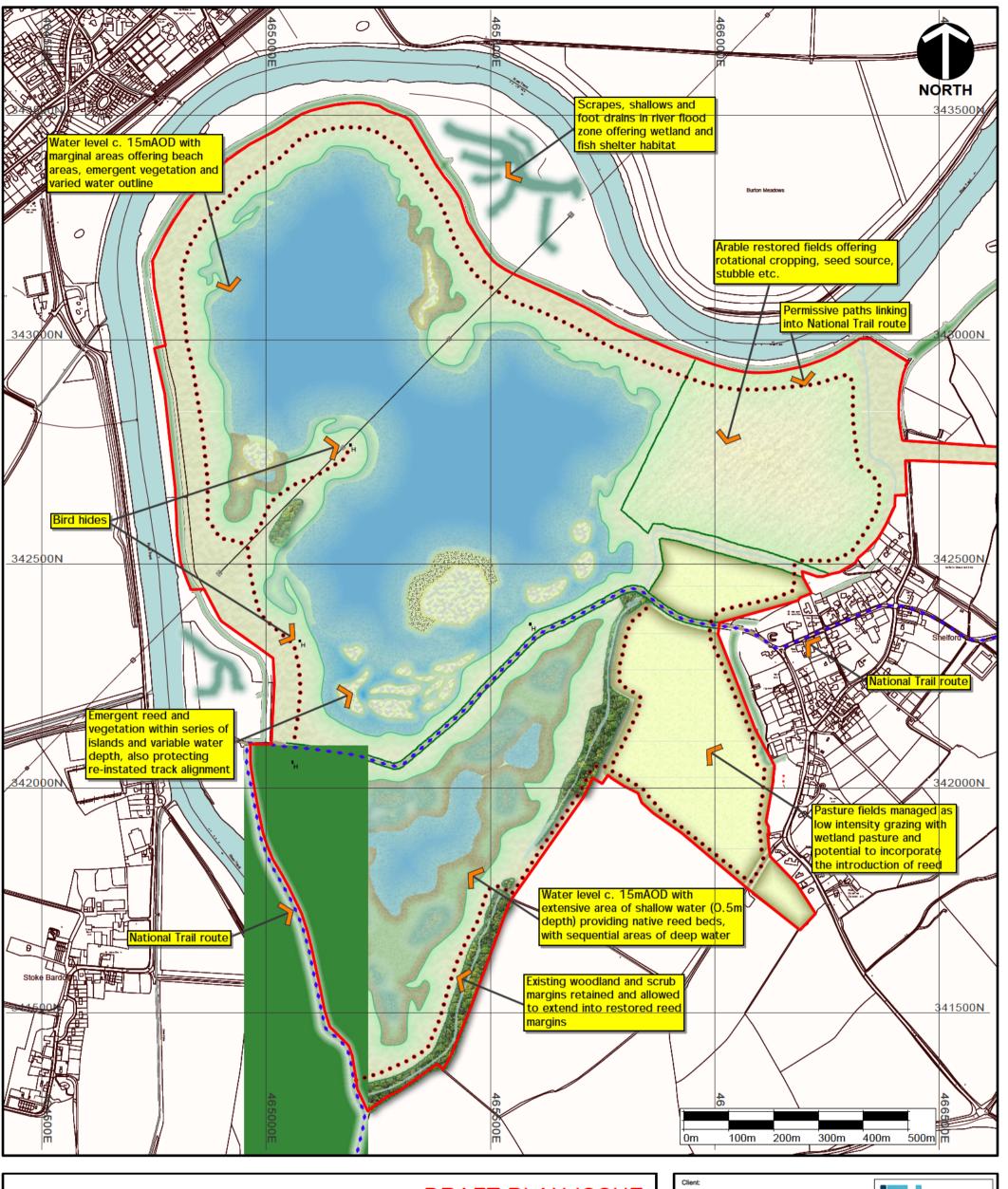
refinement of this restoration proposal will be required, it nevertheless clearly demonstrates the potential for working of this site to deliver net gains in the biodiversity on the site and landscape scale ecological enhancement.

On the basis of the assessment and the restoration proposals together with the ability to provide phased restoration to deliver the above enhancements over the course of the life of the quarry rather than as a final operation, and that the site can be worked without dewatering I consider that in respect of the Draft MLP Interim Sustainability Report July 2018 (page 156) the overall operational phase of the project should be scored no lower than 0. This is primarily on the basis that once the first phase is complete and restored the enhancements delivered are likely to rapidly overtake the impact of the next and latter phases. Furthermore, in consideration of the overall restoration package the long term score for the site post-extraction should also be not less than +2, with the potential for a score of +3 to be realised.

I trust the above is of assistance.

Regards FOR AND ON BEHALF OF BIOSCAN (UK) LTD

Samuel Watson MCIEEM Senior Ecologist Samwatson@bioscanuk.com







Appendix 7



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SHELFORD

LANDSCAPE REBUTTAL

ON BEHALF OF BRETT AGGREGATES

TOWN & COUNTRY PLANNING ACT 1990 (AS AMENDED) PLANNING AND COMPULSORY PURCHASE ACT 2004



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1. INTRODUCTION

- 1.1 Connected Landscapes has been instructed by Brett Aggregates to provide a rebuttal to Nottinghamshire County Council's 2018 consultation draft Minerals Local Plan (MLP) in relation to land at Shelford which is not within the allocated sites.
- 1.2 The rebuttal has been produced on the basis of desk-based research, including analysis of:
 - Preliminary Landscape and Visual Assessment of Potential Mineral Sites 2018 (Via/NCC);
 - Draft Minerals Local Plan Sustainability Appraisal Interim Report July 2018;
 - publicly available aerial imagery (Google Earth);
 - published landscape character assessment Greater Nottingham LCA (including Trent Washlands by Nottinghamshire County Council); and
 - Ordnance Survey mapping at 1:25,000 scale.
- 1.3 This rebuttal has been written with regard to best practice as outlined in published guidance:
 - Guidelines for Landscape and Visual Impact Assessment (3rd edition) -Landscape Institute/ Institute of Environmental Management and Assessment (2013)
 - GLVIA3 Statement of Clarification 1/13 Landscape Institute (2013)
 - An Approach to Landscape Character Assessment Natural England, October 2014



2. AUTHOR'S QUALIFICATIONS AND EXPERIENCE

- 2.1 My name is Robert Pile and I hold a 1st Class Bachelor of Science Degree in Agriculture, with Honours in Agriculture, Forestry and Rural Economy (BSc Hons), and a Post-Graduate Diploma in Landscape Architecture. I am a Chartered Member of the Landscape Institute and a Technician Member of the Arboricultural Association.
- 2.2 I am the Principal of Connected Landscapes, a landscape architecture and landscape planning practice specialising in landscape and visual impact assessments relating to all forms of development. Connected Landscapes is a practice registered with the Landscape Institute since the formation of the business in early 2016.
- 2.3 I have gained over 20 years of consultancy experience across the landscape planning, land management and forestry professions. Prior to forming Connected Landscapes, I was a Principal Landscape Architect at the Pegasus Group where I specialised in LVIAs across a range of development types, but particularly those relating to residential and renewable energy. Prior to joining the Pegasus Group, I was an Associate at David Jarvis Associates where I specialised in landscape planning issues across the minerals and waste sectors. I have had considerable experience of and involvement in a range of development projects throughout the UK, many of which have involved statutory protected landscapes, including National Parks, Areas of Outstanding Natural Beauty (AONB), as well as non-statutory local landscape designations such as Special Landscape Areas (SLA's). I have written landscape statements for written representation appeals for a number of different development projects, and assisted in the production of a number of proofs of evidence for residential, renewable energy and other developments.
- 2.4 I provide my professional services in compliance with the Landscape Institute's Code of Standards of Conduct and Practice for Landscape Professionals.



3. SITE DESCRIPTION

- 3.1 The Shelford site occupies land within a bow of the River Trent between the villages of Burton Joyce (to the north-west of the river), Shelford (to the east/south-east of the site) and Stoke Bardolph (to the west of the site).
- 3.2 Historic maps from 1609 show that the River Trent previously followed a course much closer to the village of Shelford, and it is considered highly likely that much of the land within the site would have been seasonally flooded prior to the construction of the flood defences alongside the current course of the river.
- 3.3 The site comprises predominantly arable farmland, with some areas of pastoral farmland adjacent to the River Trent. Fields are a mix of regular and more irregular shapes, with arable fields generally larger in size and pastoral fields smaller, especially where these are used for horse grazing, close to the village of Shelford. A number of the larger arable fields are already amalgamations of a number of smaller fields see https://maps.nls.uk.
- 3.4 Fields boundaries are predominantly native hedgerows with limited hedgerow trees, while there are a number of treebelts and small copses.
- 3.5 There is one isolated property within the site (known as The Holmes), while the village of Shelford lies immediately outside the eastern/south-eastern boundary of the site. The property known as The Holmes would be demolished as part of the extraction operations as it is currently occupied by the agricultural tenant on the Shelford site and would therefore no longer be required once the site is restored to non-agricultural uses.
- 3.6 Part of the Trent Valley Way promoted long-distance footpath passes through the site, following the line of Stoke Ferry Lane.
- 3.7 The proposed site for the processing of mineral won from the site lies further to the east, immediately adjacent to the A6097, to the west of East Bridgford and south of Gunthorpe. Mineral would be transported from the main extraction areas to the processing site by low level conveyor.



4. LANDSCAPE CHARACTER

- 4.1 The site lies within the Trent Washlands regional character area, and the Shelford Village Farmlands and Stoke Lock River Meadowlands landscape policy zones. The Mid-Nottinghamshire regional character area lies to the north-west, and the South Nottinghamshire Farmlands regional character area lies to the south-east.
- 4.2 The Site Landscape and Visual Sensitivity Analysis undertaken as part of the development of the MLP considers the existing landscape character of the site and the wider study area under five headings: landform; settlement pattern; landcover; tree cover; and spatial character, boundary treatments, enclosure and tree patterns. There is commonality of professional opinion between the authors of the sensitivity analysis and the author of this rebuttal on the majority of these headings. However, I consider that the extent of tree cover within the wider study area is greater than described in the sensitivity analysis, particularly to the east and north-east of the site.
- 4.3 It is important to note that neither the site nor any of the immediately surrounding area is designated for its particular landscape quality, either at the national/statutory level or the local/non-statutory level. That is not to say that the landscape is not locally valued and I recognise that the local environment is countryside, which is protected for its own sake as acknowledged in the NPPF.
- 4.4 I set out in **Tables 4.1 and 4.2** below the landscape value and landscape susceptibility scoring from the sensitivity analysis, together with my own scoring and considerations.
- 4.5 It should be noted that the scoring system used in the published analysis does not differentiate between susceptibility to positive and negative changes, nor does it consider magnitude of effect. The numerical values allocated to the different levels also appears to be somewhat arbitrary and not entirely coherent. The methodology for the assessment visual susceptibility is not therefore consistent with the approach outlined in GLVIA3.



Table 4.1: Landscape Value Scoring (3 = High; 2 = Medium; 1 = Low)

Factor	NCC Sensitivity Analysis		Author's Sensitivity Analysis	
	Assessment	Score	Assessment	Score
Landscape Quality	Smaller scale pasture near to village provides the setting for the church. Larger scale arable to the west. Arable land to the east off the A6097.	2	Agreed	2
Scenic Quality	Moderate quality within the river floodplain.	2	Agreed	2
Rarity	Earthworks and small fields of pasture to western edge of Shelford.	3	Mix and pattern of field sizes is not atypical for the area, and some of the larger arable fields are already amalgamations of smaller fields.	2
			Extraction operations would be offset from the western edge of the village (and the church and earthworks), with these areas being managed as wetland pasture through low intensity grazing.	
Representativeness	Strong sense of place, particularly near to Shelford village with views of the church. Characteristic of the policy zone.	3	Eastern part of site does form part of the setting for the village and church, but no formal landscape designation. As noted above, extraction operations would not be undertaken within this area, with the fields managed as wetland pasture through low intensity grazing.	2



Factor	NCC Sensitivity Analysis	Author's Sensitivity Analysis					
	Assessment	Score	Assessment	Score			
Conservation Interests	Designated SINC to the south western corner (Swallow Plantation)	2	Not strictly a landscape matter. No dewatering would be required during the operational phase, and the SINC would be further protected during operational phase by suitable offsetting, and then enhanced as part of restoration scheme.	1			



Recreation Value	Trent Valley Way long distance path runs west to east through the site along a track with hedgerow on both sides. Footpath along the northern edge of the river and	3	Accepted, though only affects limited length of Trent Valley Way (approx. 1.2km) and effects during operational phase would be time-limited.	2
	bridleway to the north along Trent Lane.		The existing route of the TVW would be retained during the operational phase, with extraction on either side being phased consecutively.	
			A new permissive route would be created prior to the start of the operational phase, following the alignment of the existing levees adjacent to the river. This new route would allow users of the TVW to continue following the line of the river, whereas at present users are diverted away from the river along Stoke Ferry Lane.	
			A further permissive route would also be created along the southern edge of the site, adjacent to the Swallow Plantation SINC).	
			No direct effects on the physical character of other PRoWs outside of the site.	
			Note: Only the physical character of PRoWs should be considered under landscape sensitivity – effects on visual amenity as experienced from PRoWs within or near the site should be considered under visual sensitivity.	
Perceptual Aspects	Tranquil to the west of Shelford; eastern area is adjacent to the A6097.	2	Agreed.	2



Factor	NCC Sensitivity Analysis	Author's Sensitivity Analysis					
	Assessment	Score	Assessment	Score			
Associations	History Trail Maps; Shelford village was the scene of a battle in the English Civil War; Shelford Manor to the north east is built on the site of a priory.	2	Accepted, but these are all historical/cultural associations, rather than landscape specific, and do not <i>per se</i> contribute to perceptions of the <u>natural beauty</u> of the area.	2			
TOTAL (+1)		20		16			



Table 4.2: Landscape Susceptibility Scoring (6 = High; 4 = Medium; 2 = Low)

Factor	NCC Sensitivity Analysis			Author's Sensitivity Analysis							
	Assessment	Sco	ore	Assessment	Score						
		Operational Post- restoration									
Loss/Gain	Loss of pasture, arable land and hedgerows/linear belts of trees	6	6	Exisitng land uses are not atypical for the local area, therefore medium susceptibility rather than high. Tree belts would generally be retained, with additional tree planting and ecological enhancement post-restoration to create a large-scale wetland environment, not dissimilar to the likely seasonally-flooded grassland of the past. Existing pasture to the west of Shelford would be retained and managed as wet pastureland through low intensity grazing.	2	2 (positive)					



Factor	NCC Sensitivity Analysis			Author's Sensitivity Analysis							
	Assessment	Sco	ore	Assessment	Score						
		Operational	Post- restoration		Operational	Post- restoration					
Incongruity	Former quarry restored to water lies to the north east	4	4	As previously noted, maps from 1609 show the course of the River Trent being much closer to the village of Shelford than the current alignment. It is considered highly likely that much of the land within the site would have been seasonally flooded prior to the construction of the flood defences alongside the current course of the river. The existing restored quarry site to the north-east is not directly relevant to this analysis, but restoration of the Shelford site could be linked to the existing restored quarry site to increase the value of ecological enhancements.	4	2 (positive)					



Factor	NCC Sensitivity Analysis			Author's Sensitivity Analysis		
	Assessment	Sco	ore	Assessment	Score	
		Operational	Post- restoration		Operational	Post- restoration
Perception	Significant change in character	6	6	Accepted that there would be a substantial change to the character of the site, but post-restoration this change would be a long-term positive/beneficial one.	6	2 (positive)
				Offsite effects would be experiential or perceptual only (no direct effects) and limited in extent – see published Zone of Theoretical Visibility (ZTV) and consideration of the same in Chapter 5.		
Policy	TW07 – conserve and reinforce (conflicts)	6	6	Accepted that the operational phase would conflict with policy for a limited period of time, but the restoration of the site at the end of the extraction phase would be entirely in agreement with policy and could result in substantial environmental enhancements.	4	4 (positive)
TOTAL (+1)		23	23		17	11 (positive)



- 4.8 The published analysis score of 20 (ex 25) suggests a landscape value towards the higher end of the scale. Based on the site being not atypical for the local area and undesignated at either national or local levels, and my own scoring (16 ex 25), I consider that the landscape character of the site and its immediate environs is of overall medium value.
- 4.9 The published sensitivity analysis considered that the overall sensitivity score for local landscape character was 43 (ex. 50) for both the operational and post-restoration phases. My own analysis results in an overall landscape sensitivity score of 33 in relation to the operational phase, and 27 for the post-restoration phase due to the beneficial effects that would arise as a result of the proposed restoration of the site and the creation of new permissive access routes.
- 4.10 However, the methodology used in the published analysis considers only the value and susceptibility of landscape character, combining these to assign a level of sensitivity to landscape character changes. The methodology does not consider the likely magnitude of change and does not therefore differentiate between adverse and beneficial (typically post-restoration) effects on landscape character. The methodology is therefore of limited value in considering the potential effects that might arise from mineral extraction at a particular site. My own analysis has, where possible, considered potential positive changes, though without considering magnitude and nature of effects on landscape character separately from sensitivity this is still of limited value.
- 4.11 The published landscape character assessments consider the local landscape character to be moderate sensitivity, and I consider that my own analysis and scoring is entirely in line with this moderate sensitivity.
- 4.12 It is accepted that the extraction of sand and gravel reserves from the site would result in substantial but time-limited direct effects on the landscape character of the site itself, and some limited experiential or perceptual effects on local landscape character in the vicinity of the site. The character of the site itself would change from one of predominantly large-scale intensive arable farming (with some pastoral uses) to one of sand and gravel extraction operations.
- 4.13 Any notable off-site effects on landscape character are likely to be limited to within those surrounding areas from where the proposed extraction operations would be clearly visible see consideration of the published Zone of Theoretical Chapter 5.
- 4.14 Once restoration of the site is completed, the character of the site would change from the current predominantly arable farmland to a mix of woodland, wet pasture and water-based environmental enhancement measures. It is considered that this would be a substantial net beneficial change to the landscape character of the site.



5. VISUAL AMENITY

- 5.1 Being located within the floodplain of the River Trent, there are relatively high levels of inter-visibility within the site and surrounding area.
- 5.2 The indicative ZTV published in the sensitivity analysis suggests that visibility of extraction operations may extend up to nearly 2.5km from the site in certain directions, though much less than this in the majority of directions. However, the ZTV uses a bare-earth model which does not consider the screening effects of existing vegetation (such as the various tree belts and small woodlands within the site and surrounding area) and built form, and the actual visibility is likely to be considerably reduced from this.
- 5.3 It is accepted that there would be likely to be visibility from PRoWs within and close to the site, notably the Trent Valley Way where it crosses the site, and the footpaths on the north bank of the River Trent and between the river and Stoke Bardolph. There would also be visibility from certain public highways in the vicinity of the site, notably Stoke Lane to the west of the River Trent, Manor Lane and Stoke Ferry Lane to the east and west of Shelford respectively,
- 5.4 It is also likely that there would be visibility from some residential properties on the western side of Shelford and the eastern side of Stoke Bardolph. Views from the majority of other properties within these two villages would be restricted by existing built form on the western and eastern sides of these villages respectively.
- 5.5 The Site Landscape and Visual Sensitivity Analysis considers the value and susceptibility of local visual amenity. I set out in **Tables 5.1 and 5.2** below the visual value and susceptibility scoring from the sensitivity analysis, together with my own scoring and considerations.
- 5.6 The methodology used for assessment of visual sensitivity does consider magnitude of effect, but considers this as part of the susceptibility scoring, rather than in its own right. As with landscape character, the analysis does not differentiate between adverse and beneficial effects. The numerical values allocated to the different value levels also appear to be somewhat arbitrary and not entirely coherent. The methodology for the assessment visual susceptibility is not therefore consistent with the approach outlined in GLVIA3.



Table 5.1: Visual Value Scoring (8 = High; 6 = Medium; 3 = Low)

Factor	NCC Sensitivity Analysis		Author's Sensitivity Analysis						
	Assessment	Score	Assessment	Score					
Recognition of Value (Setting)	Setting of church and village	8	Landscape is not designated, and there are no recognised viewpoints marked on OS mapping. Only the eastern part of the site forms part of the setting for the church and village, and this would be protected by offsetting, with fields closest to the village being retained as wetland pasture, managed by low intensity grazing.	6					
Indicators of value (tourist maps, guides etc.)	Trent Valley Way, historic trails	6	Accepted that there is a promoted long-distance footpath passing through part of the site, but the landscape is nevertheless undesignated.	6					
Other value (Rights of Way)	See recreation value	6	Recreation value is already considered under landscape value and should not therefore be duplicated here.	3					
TOTAL (+1)		21		16					



Table 5.2: Visual Susceptibility Scoring (5 = High; 3 = Medium; 1 = Low)

Factor	NCC Sensitivity Analysis	S		Author's Sensitivity Analysis								
	Assessment	Sco	ore	Assessment	Score							
		Operational	Post- restoration		Operational	Post- restoration						
Receptors	Adverse impact on residents of Stoke Bardolph to the west and residents of Shelford to the east. Adverse impact on users of the Trent Valley Way and the public footpath along the northern bank of the river.	5	5	Accepted – adverse effects would be experienced by certain residential receptors in Shelford and Stoke Bardolph, as well as users of the Trent Valley Way (TVW) as it passes through the site, and other nearby PRoWs.	5	3 (positive)						



Magnitude of Effect	Significant adverse change to views	5	5	Notable effects on residential receptors would be limited to occupiers of properties on the western edge of Shelford and the eastern edge of Stoke Bardolph. Post-restoration, effects on visual amenity would become beneficial as views across large-scale arable agriculture are replaced with views across ecological valuable pasture and wetland.	3	3 (positive)
				Effects on PRoW users would be limited to users of limited stretches of the TVW and other nearby footpaths. Consecutive phasing of extraction operations on either side of the existing TVW, combined with active management of the hedgerows on either side of the route to increase their height and density, would restrict the visibility of operations from this short section of the TVW.		
				The proposed new permissive routes (which would be created prior to the start of the operational phase) would result in beneficial effects on visual amenity as experienced from PRoWs as they would allow users of the TVW to continue walking alongside the river as they pass to the west/north-west of Shelford.		
				Post-restoration, effects on visual amenity would again become beneficial as views across large-scale arable agriculture are replaced with views across ecological valuable pasture and wetland. Offsetting and advance buffer planting would reduce magnitude of effect for both types of receptor during the operational phase.		



Factor	NCC Sensitivity Analysis			Author's Sensitivity Analysis		
	Assessment	Score		Assessment	Score	
		Operational	Post- restoration		Operational	Post- restoration
TOTAL		25	25		15	9 (positive)



- 5.9 The published analysis score of 21 (ex 25) suggests a visual value towards the higher end of the scale. Based on the site being undesignated at either national or local levels and with no promoted viewpoints, and my own scoring (16 ex 25), I consider that the visual amenity of the site and its immediate environs is of overall medium value.
- 5.10 The published sensitivity analysis considered that the overall sensitivity score for local visual amenity was 46 (ex. 50) for both the operational and post-restoration phases. It should be reiterated that the sensitivity analysis methodology does not differentiate between susceptibility to adverse effects and susceptibility to beneficial effects (post-restoration), and also considers magnitude of effect as part of visual susceptibility rather than it its own right. My own analysis results in an overall visual amenity sensitivity score of 31 (ex. 50) in relation to the operational phase, and 25 (ex. 50) for the post-restoration phase due to the beneficial effects on local visual amenity that would arise as a result of the proposed restoration of the site.
- 5.11 My own analysis has, where possible, considered potential positive changes, though by combining this with susceptibility to produce a sensitivity score this is still of limited value.
- 5.12 Notwithstanding the inherent value of rural/countryside views irrespective of any landscape designation, I consider that local visual amenity in the vicinity of the Shelford site is of medium sensitivity.
- 5.13 It is accepted that the extraction of sand and gravel reserves from the site would result in substantial but time-limited effects on visual amenity as experienced from PRoWs within and close to the site and from certain nearby residential properties. Views into the site would change from views of predominantly arable farmland to views of sand and gravel extraction operations. The creation of new permissive routes prior to the start of the operational phase, including providing the option for users of the TVW to continue walking alongside the river, would increase the opportunities for PRoW users to enjoy the visual amenity of the local area, even during the operational phase.
- 5.14 Once restoration of the site is completed, the views would change from predominantly arable farmland (as at present), to views of water/wetland habitat and wetland pasture and associated trees, woodlands and other native vegetation. It is considered that these changes would be considered by the majority of receptors as being beneficial in effect.



6. SUSTAINABILITY APPRAISAL

- 6.1 The landscape and visual sensitivity analysis undertaken as part of the MLP development process considered the site to be of higher end of the combined scale of landscape and visual sensitivity, with operational phase and post-restoration phase scores of 89 out of 100.
- 6.2 I consider that the published analysis has assessed the landscape and visual value and susceptibility of the site and surrounding area too highly, and I have assessed the operational phase and post-restoration phase scores as 64 and 52 respectively. It should be noted that post-restoration effects on both local landscape character and visual amenity are likely to be beneficial.
- 6.3 As with the sensitivity analysis, when applied to landscape and visual amenity the Draft Minerals Local Plan Sustainability Appraisal Interim Report July 2018 uses a methodology that does not take into consideration any potential beneficial effects on landscape character and visual amenity that might arise from the restoration of a mineral extraction site, with all effects considered to be adverse in nature.
- 6.4 Para 6.19 of the Sustainability Appraisal sets out the potential scale as follows:

Landscape Assessment Score	SA Score
23-48	-1
49-74	-2
75-100	-3

- 6.5 Furthermore, a further -1 was added to the SA score (up to the maximum of -3) for all sites that are located within the Greenbelt by default, irrespective of the actual likely effects on the openness and visual amenity of the Greenbelt that might arise from mineral extraction operations on such sites. I believe this approach to be flawed as I consider that the careful positioning of the processing site, combined with the use of offsetting and advance planting, can be used to substantially reduce any perceived effects on the openness and visual amenity of the Greenbelt.
- 6.6 Under the published analysis, the SA score for both operational and post-restoration phases for the Shelford site came out at -3.
- 6.7 Under my own analysis, the SA score both during the operational phase and post-restoration would be -2, reduced to -3 if the Greenbelt factor is applied by default.
- 6.8 However, I consider that more careful consideration of the true effects on landscape character and visual amenity, including appropriate consideration of effects on the Greenbelt, would give rise to an SA score of -2 during the operational phase (accepting that there would be adverse effects on both landscape character and visual amenity), and +2 once restoration of the site is completed (due to the beneficial effects on landscape



character and local visual amenity that would arise as a result of the proposed restoration scheme).



7. CONCLUSION

- 7.1 This landscape rebuttal relates to a site comprising predominantly arable farmland located within a loop of the River Trent in Nottinghamshire, between the villages of Burton Joyce, Shelford and Stoke Bardolph. The site has previously been promoted through the Minerals Local Plan, but has not been included as a proposed site within the 2018 Consultation Draft of the MLP. The site lies within an area which is considered in published landscape character assessments as being of moderate landscape character sensitivity.
- 7.2 The landscape and visual sensitivity analysis undertaken as part of the MLP development process considered the site to be of higher end of the combined scale of landscape and visual sensitivity, with operational phase and post-restoration phase scores of 89 out of 100.
- 7.3 I consider that the published analysis has assessed the landscape and visual value and susceptibility of the site and surrounding area too highly, and I have assessed the operational phase and post-restoration phase scores as 64 and 52 respectively. This is in part because the site does not lie within an area that has been designated for its landscape quality at either the national/statutory or local/non-statutory levels. The published modelling of the theoretical visibility of any extraction operations at the site also used only a bare-earth model and did not therefore consider the potential screening effects of existing vegetation (including tree belts within the site and other small woodlands in the local area) or existing built form (which would restrict visibility from residential properties in Shelford and Stoke Bardolph to those properties closest to the site).
- 7.4 It should be noted that post-restoration effects on both local landscape character and visual amenity are likely to be beneficial.
- 7.5 The methodology used in the sensitivity analysis is not consistent with the approach outlined in the 3rd Edition of the Guidelines for Landscape and Visual Impact Assessment (Landscape Institute & IEMA, 2013):
 - The methodology used in the published analysis considers only the value and susceptibility of landscape character, combining these to assign a level of sensitivity to landscape character changes. The methodology does not consider the likely magnitude of change and does not therefore differentiate between adverse and beneficial (typically post-restoration) effects on landscape character. The methodology is therefore of limited value in considering the potential effects that might arise from mineral extraction at a particular site. My own methodology has, where possible, considered potential positive changes, though without considering magnitude of effect on landscape character this is still of limited value.
 - The methodology used for assessment of visual sensitivity does consider magnitude of effect, but considers this as part of the susceptibility scoring, rather than in its own right. As with landscape character, the analysis does not differentiate between adverse and beneficial effects. The methodology is therefore again of limited value in considering the potential effects on visual amenity that might arise from mineral extraction at a particular site.



- 7.6 When applied to landscape and visual amenity, the published Draft Sustainability Appraisal scoring system again does not distinguish between adverse and beneficial effects (as might arise following the restoration of a mineral site). Furthermore, the scoring system by default adds an additional -1 to the SA score of for any site within the Greenbelt, without any consideration of how mineral extraction operations on a site might actually influence the openness and visual amenity of the Greenbelt.
- 7.7 Under the published analysis, the SA score for both operational and post-restoration phases for the Shelford site came out at -3. Under my own analysis using the published methodology, the SA score both during the operational phase and post-restoration would be -2, reduced to -3 if the Greenbelt factor is applied by default.
- 7.8 However, I consider that more careful consideration of the true effects on landscape character and visual amenity, including appropriate consideration of effects on the Greenbelt, would give rise to an SA score of -2 during the operational phase (accepting that there would be adverse effects on both landscape character and visual amenity), and +2 once restoration of the site is completed (due to the beneficial effects on landscape character and local visual amenity that would arise as a result of the proposed restoration scheme).
- 7.9 I consider that the methodologies used in both the published sensitivity analysis and the published sustainability appraisal are flawed. However, if the existing methodologies are correctly applied, and if potential beneficial effects that would arise post-restoration are properly considered, then I consider that through the use of phased extraction and restoration combined with offsetting and appropriate advance buffer planting, mineral could be successfully extracted from the Shelford site could be without unacceptable landscape and visual effects.

Appendix 8

03 September 2018 Our ref: BGL/SH/JRC/2954/01

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Dear Jenny



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Shelford

We are pleased to provide below our comments on the Nottinghamshire Draft Mineral Local Plan in respect of flood risk and water quality in order to support the reinstatement of the Shelford site to the site allocations. We include a summary of the flood modelling work carried out for the Shelford site to date.

Response to the Draft Mineral Local Plan

The Nottinghamshire Level 1 Minerals Strategic Flood Risk Assessment (SFRA) dated March 2018 includes a table setting out the flood risk categories for the potentially allocated sites. It is identified in the SFRA that the Shelford site is located in fluvial Flood Zones 2 and 3. It is identified in the SFRA that sand and gravel workings are a water compatible development hence appropriate development in Flood Zone 3. It is identified that a planning application for a proposed minerals site in Flood Zones 2 and 3, such as Shelford, would need to include a site specific flood risk assessment.

In the Draft Minerals Local Plan sustainability appraisal interim report dated July 2018 the Shelford site is allocated -3 in respect of flood risk during the operational period of the site. This is a default scoring based on the fact that the site is located in Flood Zone 3. Very many sand and gravel resources and extraction sites are located adjacent to rivers and in flood zones as a result of the geographical and geological processes which result in the deposition of sand and gravel reserves. The location of such reserves in flood zones do not mean that they will inevitably result in adverse impacts on flood storage and flow. Accordingly it is recognised in the sustainability appraisal that sand and gravel workings are a water compatible development hence sites such as Shelford are appropriate in Flood Zone 3 providing that there is no net loss of flood storage, water flows are not impeded and flood risk is not increased elsewhere. This negative score should be removed as the design of the site, which is supported by initial flood modelling and will be the subject of further, detailed flood modelling as part of an application, shows that the development meets the criteria for water compatible development in Flood Zone 3. A summary of the flood modelling which has been carried out to date is provided below. The methodology used for the scoring of sites under SA Objective 6 (Paragraph 6.22 of the Draft Minerals Local Plan Sustainability Appraisal Interim Report dated July 2018) is inappropriate as it simply is based on whether or not the majority of the site is located in one of the three Flood Zones. This scoring approach is unreasonable as where it is the case, as it is for the Shelford site, that the proposed development is water compatible development there is no means of reflecting in the score whether the site design considerations take into account its location in the flood plain and locate structures appropriately. Sand and gravel extractions by their very nature provide additional flood storage during the operational period of a site. We object to the approach to scoring for this objective as it should allow ranking of the sites to reflect how they are or are not able to design the site to minimise any effect on flooding and flood risk and potentially provide a benefit in respect of flood risk.

The Shelford site has been designed with the knowledge of its sensitive setting with respect to flood risk. The operational and restoration design is intended to result in no net loss of flood storage and any structures such as stockpiles and built infrastructure will be located outside the Flood Zone 3 area. The necessary standoffs from the bank of the river and the existing flood defence structures will be agreed with the Environment Agency and incorporated into the site design. The processing, stockpiling and welfare areas will be located to the east of the extraction area on ground in an area of Flood Zone 2. If any mitigation screening bunds are located in the Flood Zone 3 area they will be orientated, designed and constructed to minimise any effect on flood flow and net flood storage and modelling will be carried out to confirm that there is no adverse effect on flood flow or storage. In addition, the restoration design is to levels lower than the current ground levels which will increase the available flood storage volumes. It is intended by the proposer, and acknowledged in the interim sustainability appraisal, that an integral part of the development would comprise the construction of improved flood defences for the village of Shelford. All of the potential mitigation measures suggested in the interim sustainability appraisal already are included in the site design. The allocation of -3 to the aspect of minimising the impact and risk of flooding which is assigned as 'where it is likely to have a very negative impact' is therefore unjustified for this site and a more meaningful score of +1 should be allocated to acknowledge that the proposals for the site mean that it is 'likely to have a slightly positive impact' based on the criteria in Table 6 of the July 2018 Draft Sustainability Appraisal Interim Report.

The Shelford site is allocated -1 in respect of water quality and use during the operational period of the site under SA Objective 12. This scoring is based on the potential dewatering of the site and associated discharge to watercourses at the site. As it is proposed that the site is worked wet with no dewatering, this negative score is not justified and should be changed to 0 as there is 'no significant effect'.

Summary of flood modelling carried out for the Shelford site to date

A baseline flood model has been developed for the Shelford site simulating flood conditions under the current site conditions. This baseline model has then been used to assess the potential impact on flooding of various scenarios in respect of the alignment of the flood defence bund adjacent to the River Trent around the Shelford site. These models were run following early discussions with Nottinghamshire County Council, ecological specialists in the Environment Agency, the Royal Society for the Protection of Birds (RSPB) and the Nottinghamshire Wildlife Trust (NWT) in order to assess how their objectives for the improvement of ecological habitats in the margins of the River Trent and the development of biodiversity in the restored site could be accommodated in the site design.

The model has been developed from the Environment Agency model "River Trent & Tribs at Newark SFRM2" (SFRM2 means Strategic Flood Risk Assessment Level 2) which, at the time of developing the model for the Shelford site in 2016, had last been updated by Halcrow on behalf of the Environment Agency in July 2011. It was initially understood that the Environment Agency model accounted for the flood mitigation schemes built in Nottingham up to 2011 with no known additional flood mitigation schemes having been built since 2011. Following further correspondence with Environment Agency there was a suggestion that the flood defence scheme in Nottingham may not be accounted for in the Environment Agency model used to develop the model for the Shelford site. The implication of this is that the flow estimates in the model may be slight over-estimates or under-estimates in the vicinity of Shelford. These over/under-estimations would be accounted for in the same way in both the baseline and subsequent flood bund scenarios hence would not affect the scale of the modelled impact of the proposed flood bund scenarios.

The Environment Agency model covers an area a number of kilometres (km) upstream of the site to 30km downstream from the site. To reduce model run times the Environment Agency

model was cropped in the downstream extent from 30km to 10km. The cropped model comprising the baseline model for the site includes the settlement of Gunthorpe downstream from the site as it is acknowledged that it is particularly important to demonstrate that there will be no adverse effect on flooding at Gunthorpe as a result of any development at this site.

Scenario 1 - Removal of the flood defence bund adjacent to the River Trent around the Shelford site

The initial flood bund scenario was modelled in response to the consultation response dated October 2015 from the Environment Agency on the Environmental Statement scoping and screening request dated September 2015 for a proposed sand and gravel extraction at Shelford. The initial flood modelling was carried out to assess the potential impact on flooding if the flood defence bund adjacent to the River Trent around the Shelford site was removed to allow seasonal flooding of the site area and the development of seasonal wetland habitats. The flood modelling showed that there was an increase in flooding downstream of the site if the flood defence bunds were removed hence it was concluded that removal of the flood bund is not a viable option as part of the Shelford development. It was determined that the 1 in 50 year modelled flood event is the critical scenario when assessing flood risks at the site. Although the model showed little change in the lateral extent of flooding the flood depth is shown to increase by between 30mm and 100mm across the majority of the flood area downstream of the site. This includes properties in Gunthorpe. Further models were run for the critical scenario (the 1 in 50 year flood event) to assess the impacts of partial removal of the flood bund adjacent to the River Trent around the Shelford site. These models showed there would be increased flood risk downstream of the site even if only part of the flood defence bund was removed.

The preliminary flood model results maps for the scenario where the flood bund adjacent to the river is removed are attached at Annex A. The maps show the flood extent and the change in flood depth compared with the baseline model (current situation) for the site for the flood return periods of 5, 10, 20, 50, 75 and 100 years along with the flood return period of 100 years with a 20% increase to allow for climate change. In addition the three further model run results (Baseline_Depth50yr, 50y_East_bund_remove_impact and 50y_West_bund_remove_impact) are provided at Annex A. The results of the Scenario 1 flood modelling were discussed at a meeting with Nottinghamshire County Council, the Environment Agency, the RSPB and the NWT on 22 July 2016.

Scenario 2 - Realignment of the flood defence bund adjacent to the River Trent in the west of the Shelford site

In response to comments from ecologists from Nottinghamshire County Council, the Environment Agency, the RSPB and the NWT at the meeting on 22 July 2016, it was proposed that flood modelling should be carried out to assess the potential impact on flooding if the flood defence bund adjacent to the River Trent around the Shelford site was realigned and pulled in to the site in the north. The purpose of realigning the flood defence bund would be to create more riverside space for the creation of braided streams to enhance the habitats adjacent to the river. It was determined that realigning the bund into the site in the north would have a significant and unacceptable effect on the materials balance as this is the area of the deepest mineral reserves. It was determined that an area to the north east of the existing flood defence bund which is not included in the extraction area (or the boundary of the proposed allocation site) comprised an area which has the potential for early development of river bank enhancements such as braided streams which will be unaffected by the extraction proposals.

As part of the consideration of the potential for the creation of further river bank habitat enhancements flood modelling was carried out to simulate potential flood conditions where the flood defence bund adjacent to the River Trent around the Shelford site is realigned and

pulled in to the site in the west. The results of the flood modelling for the flood return events up to the 1 in 100 year event show that there is no increase in flood risk outside of the area where the flood bund has been realigned and the models show either no change in flood risk or a reduction in flood risk in the areas around the site. The results of the flood modelling for the 1 in 100yr event with a 20% increase to allow for climate change show that there is no increase in flood risk outside of the area where the flood bund has been realigned and show a reduction in flood risk at properties in Shelford and on some land to the west of the proposal site.

The maps showing the preliminary flood model results for the scenario where the flood bund has been re-aligned in the west of the site to accommodate riverside habitats are provided at Annex B. The maps show the flood extent and the change in flood depth compared with the baseline model (current situation) for the site for the flood return periods of 5, 10, 20, 50, 75 and 100 years along with the flood return period of 100 years with a 20% increase to allow for climate change. The results of the Scenario 2 flood modelling were discussed at a meeting with Nottinghamshire County Council, the Environment Agency, the RSPB and the NWT on 10 November 2016.

Scenario 3 - Realignment of the flood defence bund adjacent to the River Trent in the north of the Shelford site

At the further meeting with Nottinghamshire County Council on 10 November 2016 NWT and the Nottinghamshire County Council ecologist requested that modelling was carried out for the critical scenario (1 in 50 year flood event) to assess the potential impact on flooding where the flood defence bund adjacent to the River Trent around the Shelford site has been pulled in to the site in the north. This model showed that there would be an increase in flooding adjacent to the site and therefore this option is not regarded as acceptable.

A plan showing the results of the flood modelling for the 1 in 50 year event where the flood bund has been realigned in the north of the site is provided at Annex C. Detailed inspection of the model results showed minor detrimental impacts for more than 5km downstream. No further flood return periods were modelled under this scenario.

Further flood modelling work as part of an application for planning permission

The flood model for the Shelford site will be used to assess the potential impact on flooding during the operational phases of the site and to assess the potential impact on flooding from proposed enhancements of the flood defence bund around Shelford village. This modelling will be carried out to support the detailed site design and a future application for planning permission.

We trust that the information presented in this e-mail is sufficient to meet your current needs. Should you have any queries or need any further information please do not hesitate to contact us.

Regards

Jo Congo

Enclosures

Annex A - Preliminary flood model results maps for Scenario 1

Annex B - Preliminary flood model results maps for Scenario 2

Annex C - Preliminary flood model results map for the 1 in 50 year event for Scenario 3

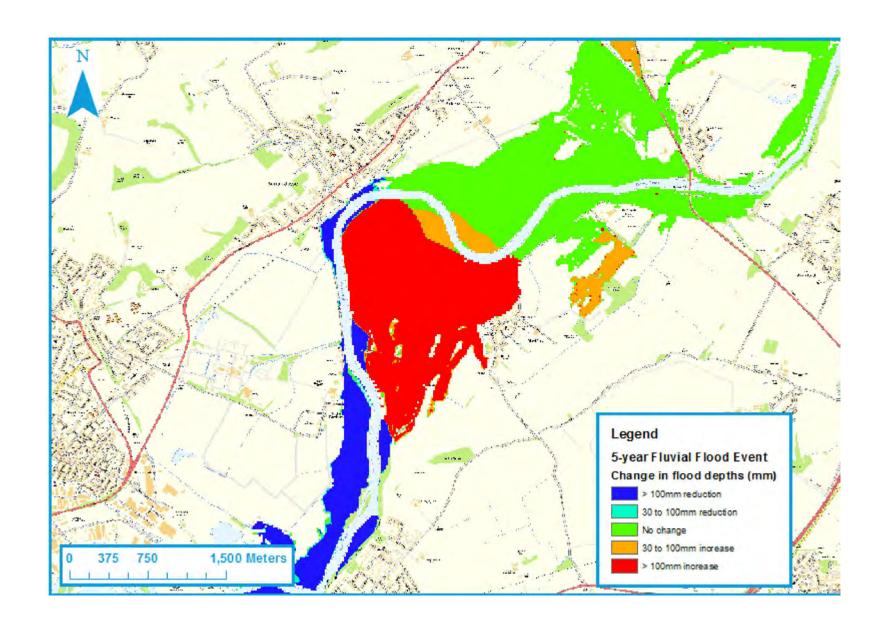
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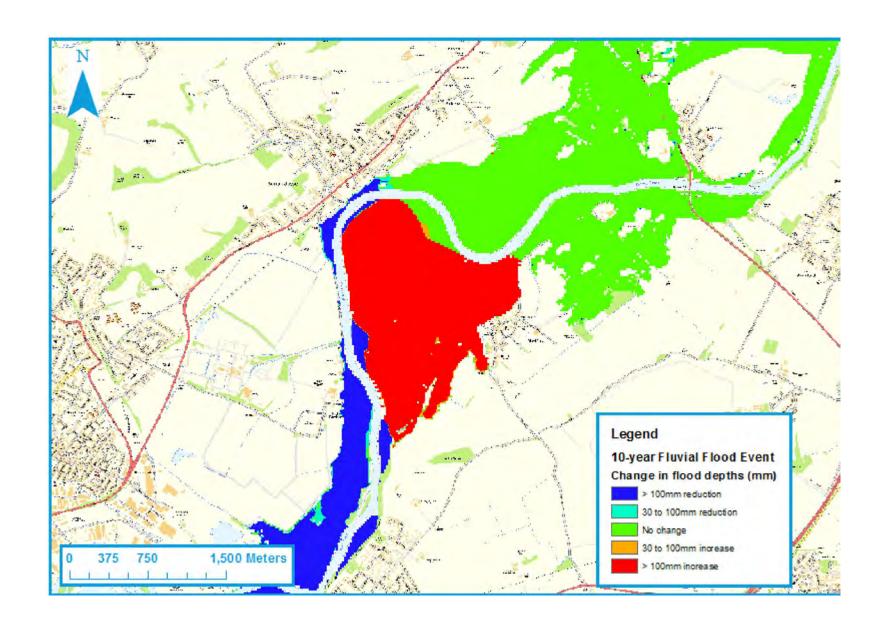
ANNEX A PRELIMINARY FLOOD MODEL RESULTS MAPS FOR SCENARIO 1

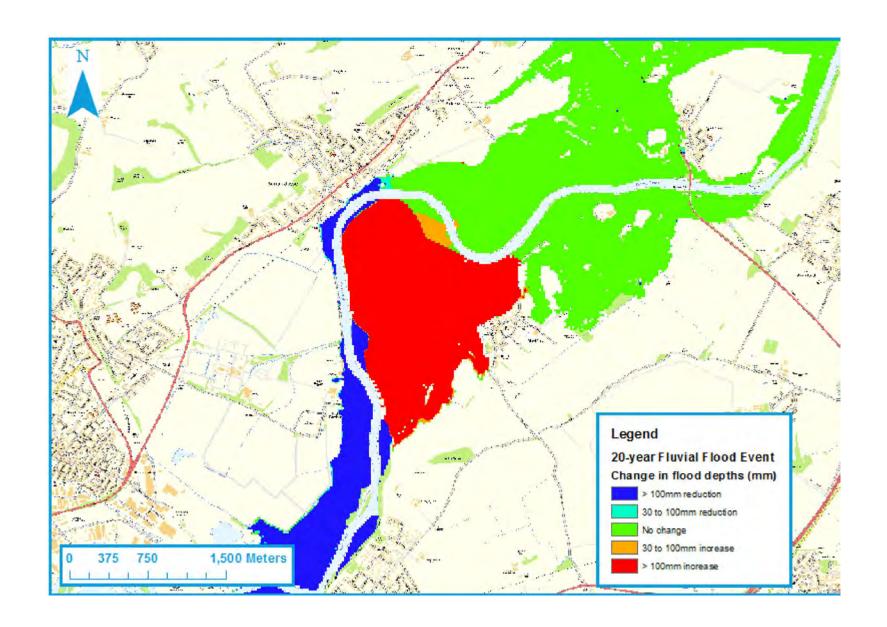
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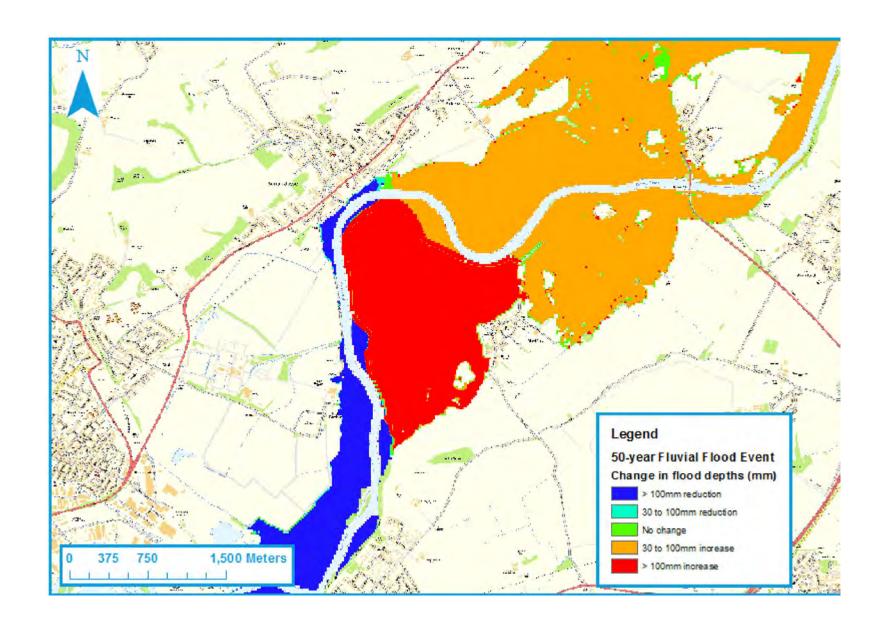


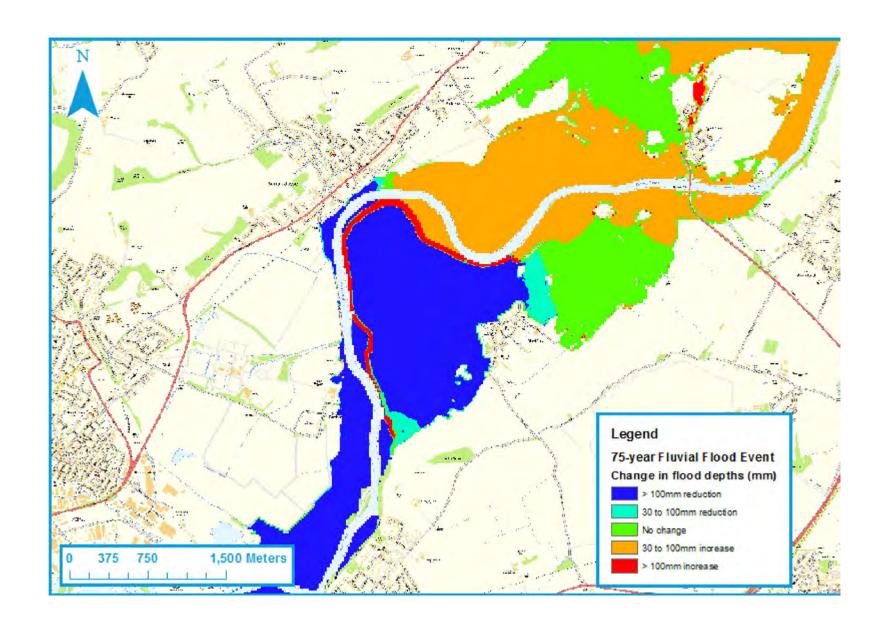
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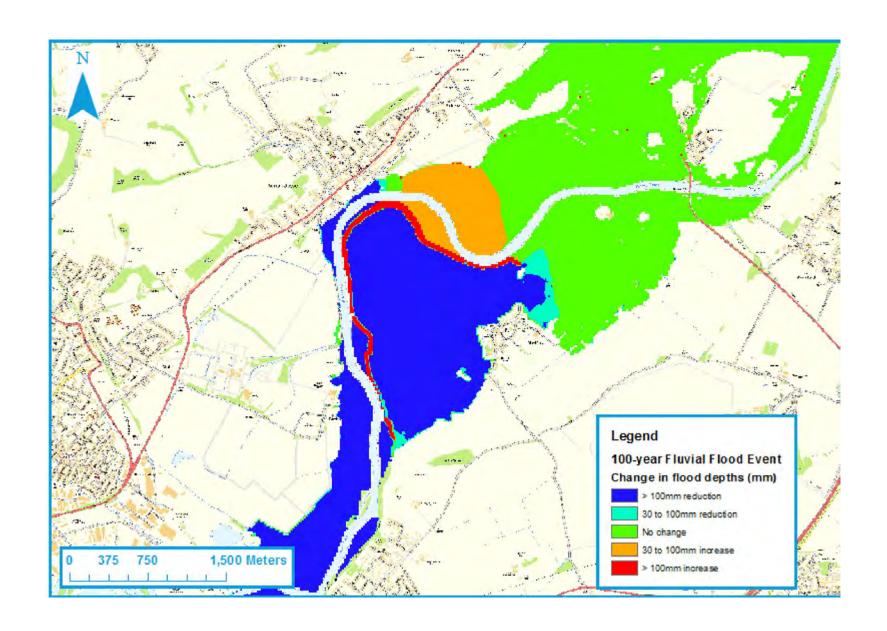


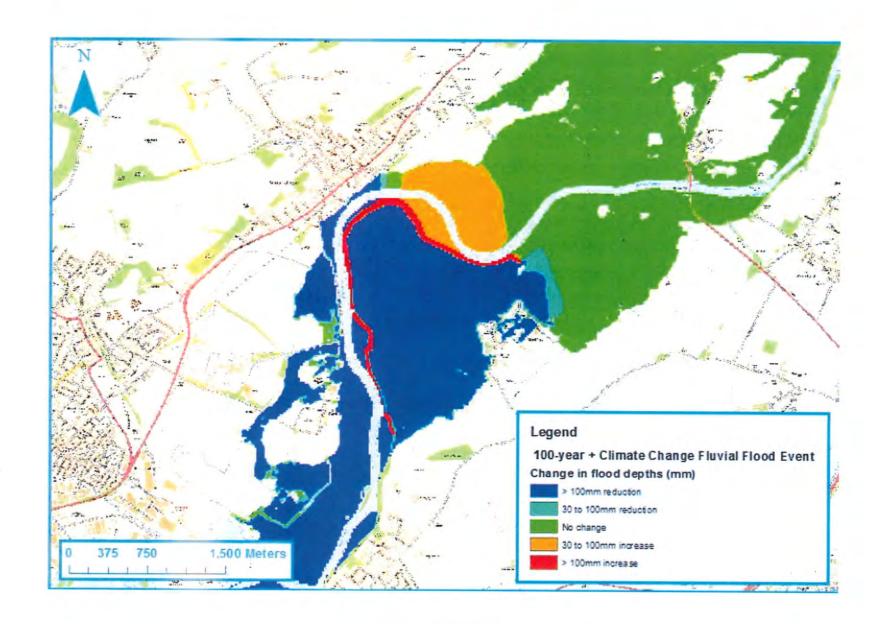


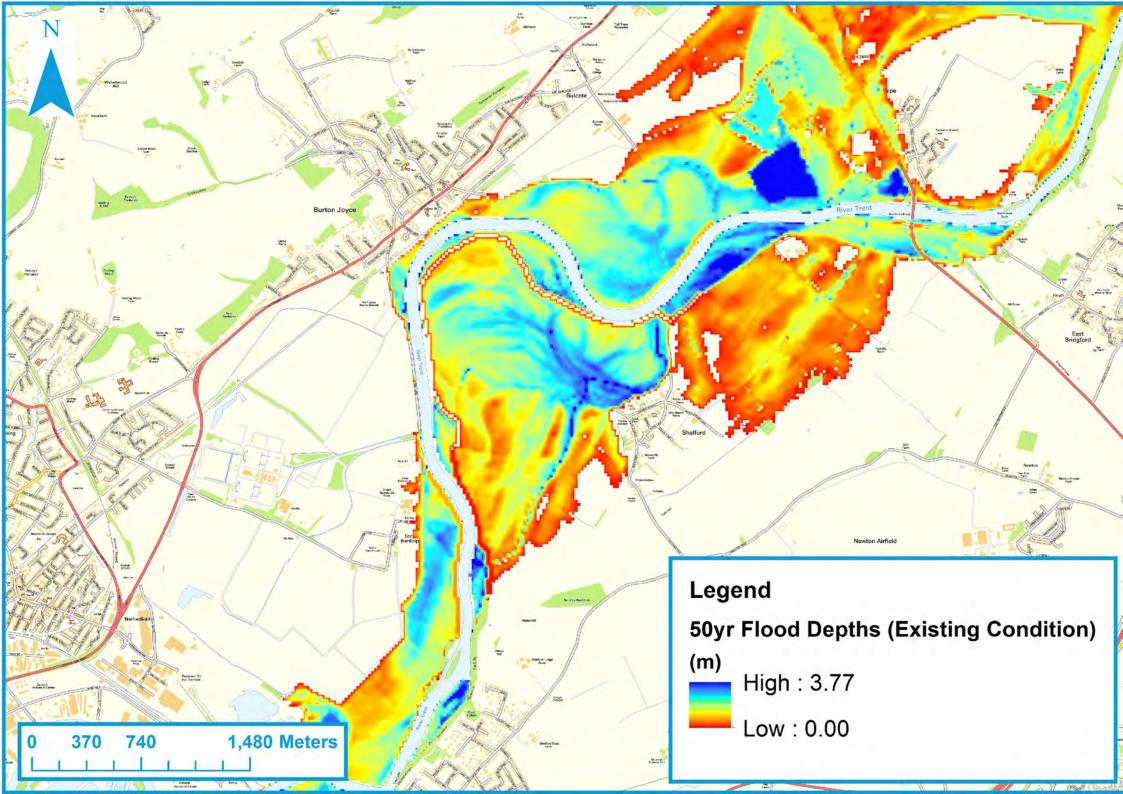


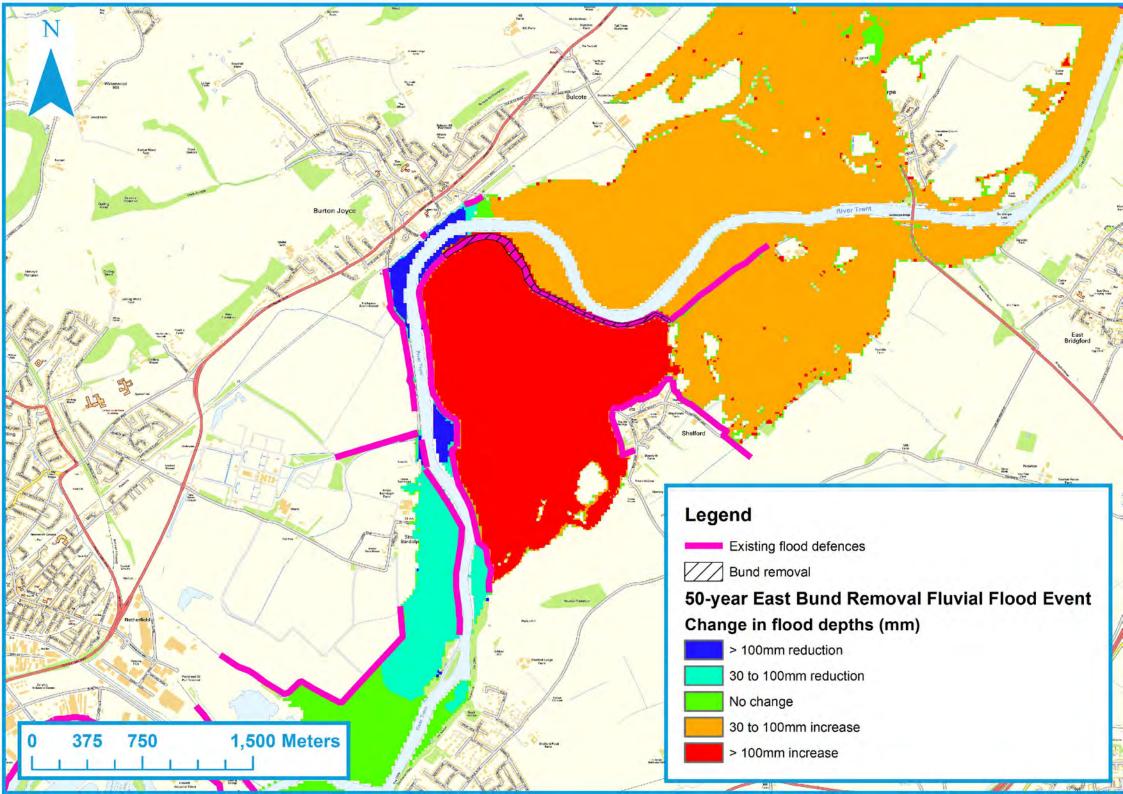


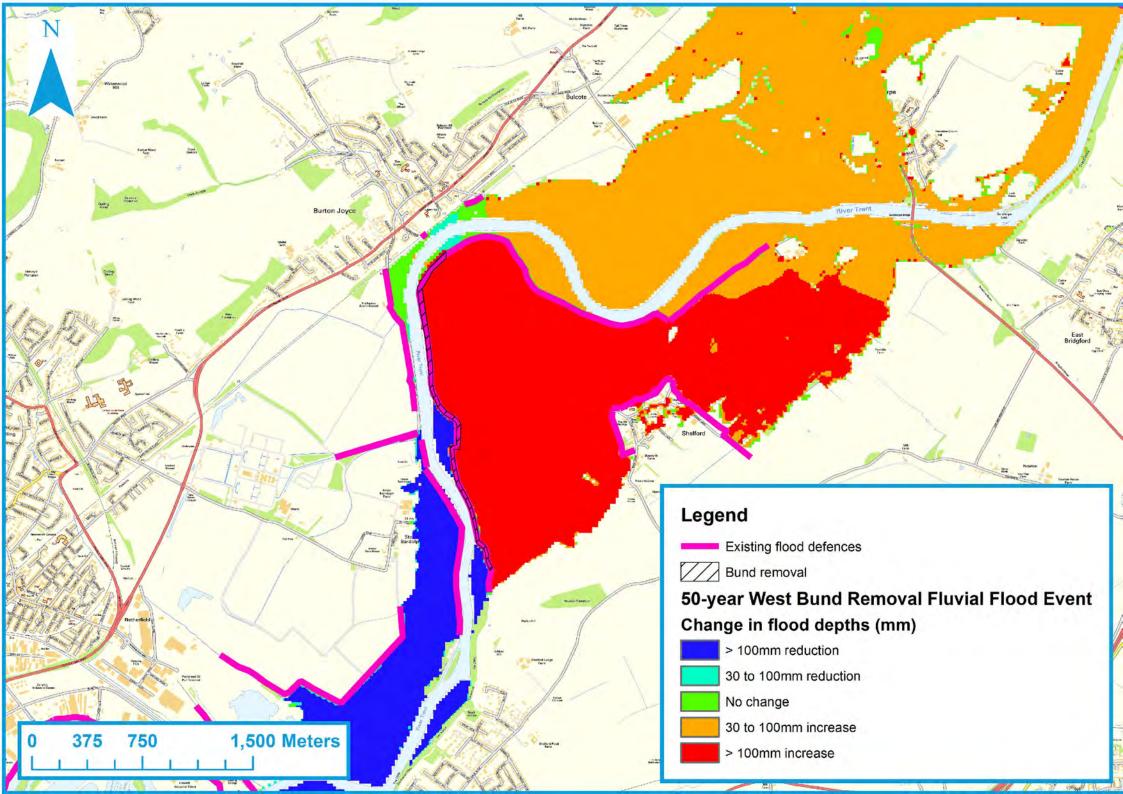






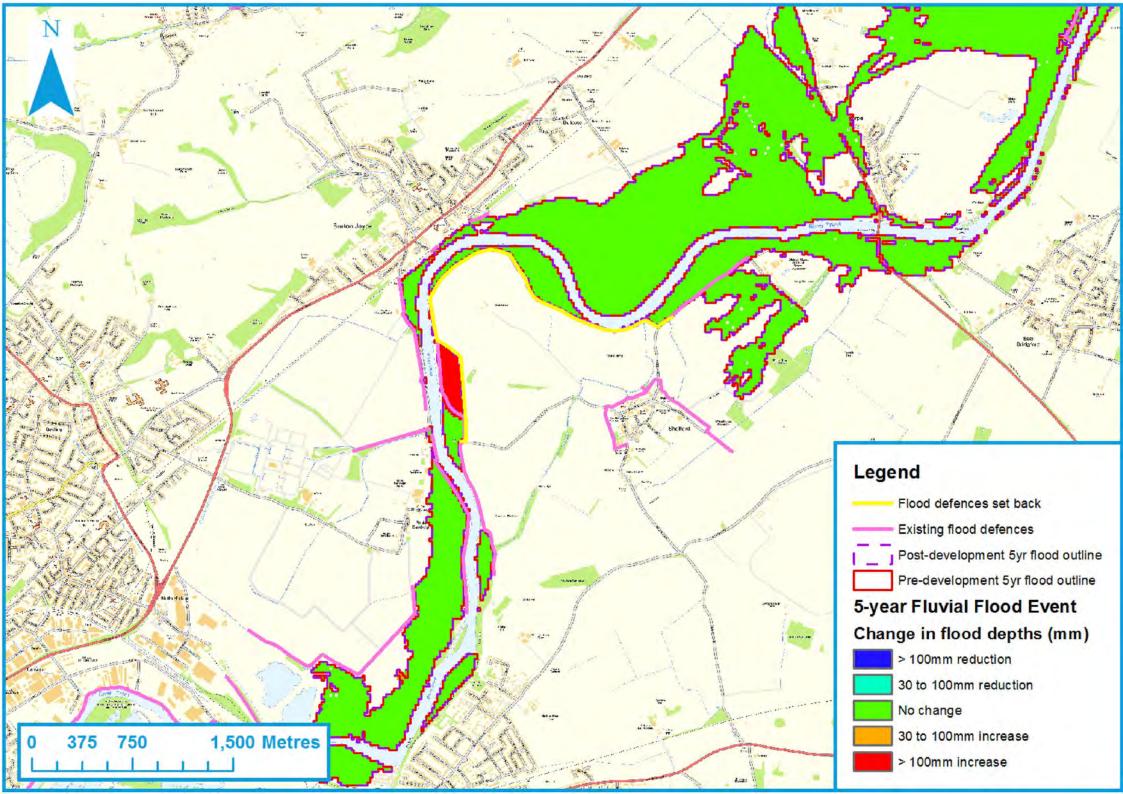


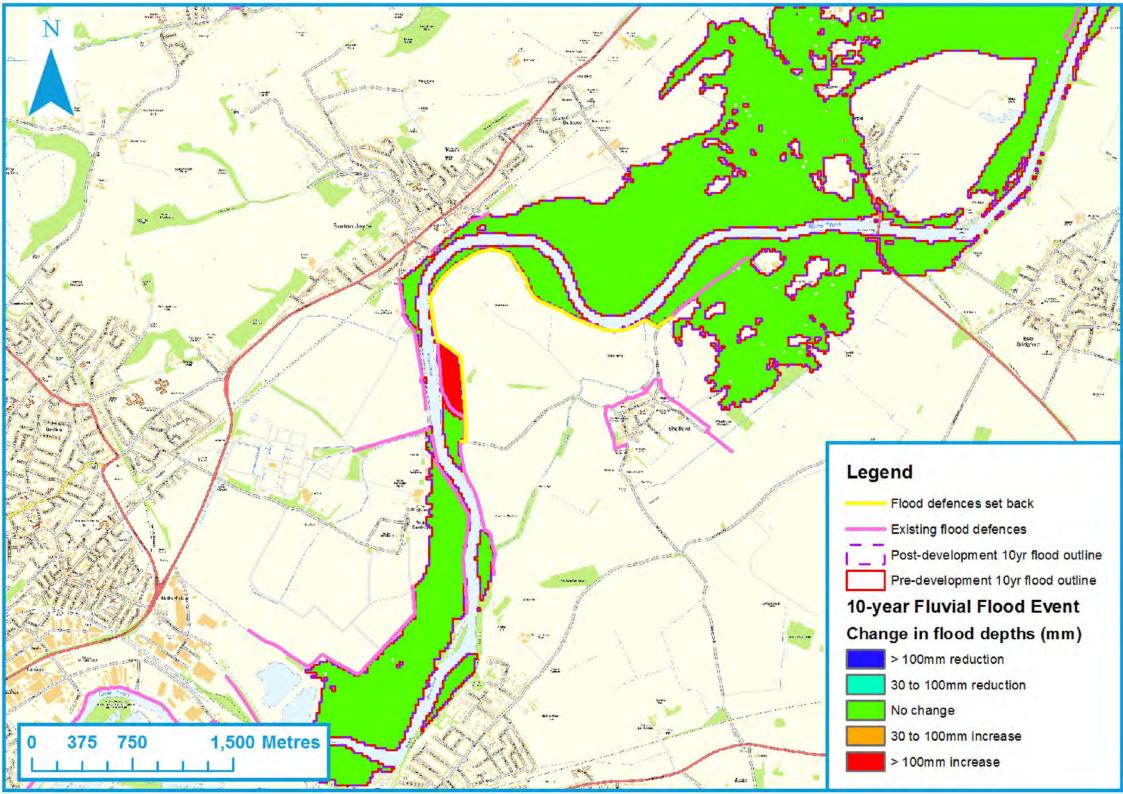


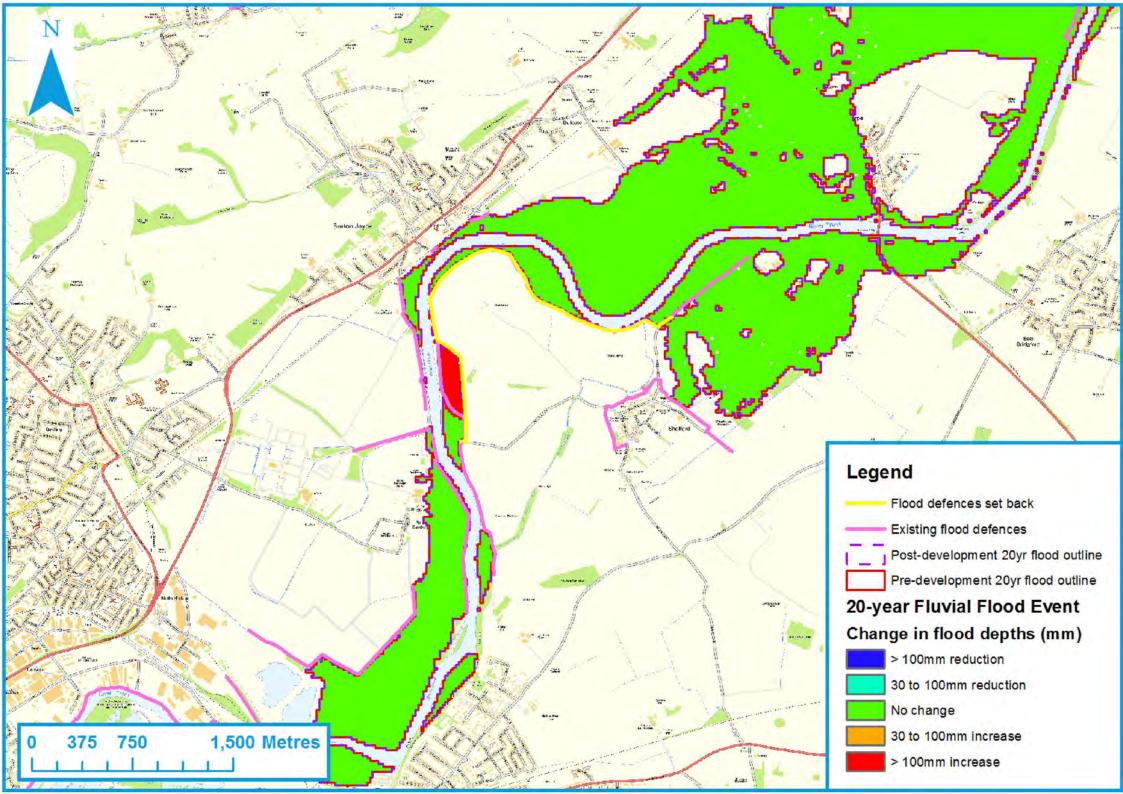


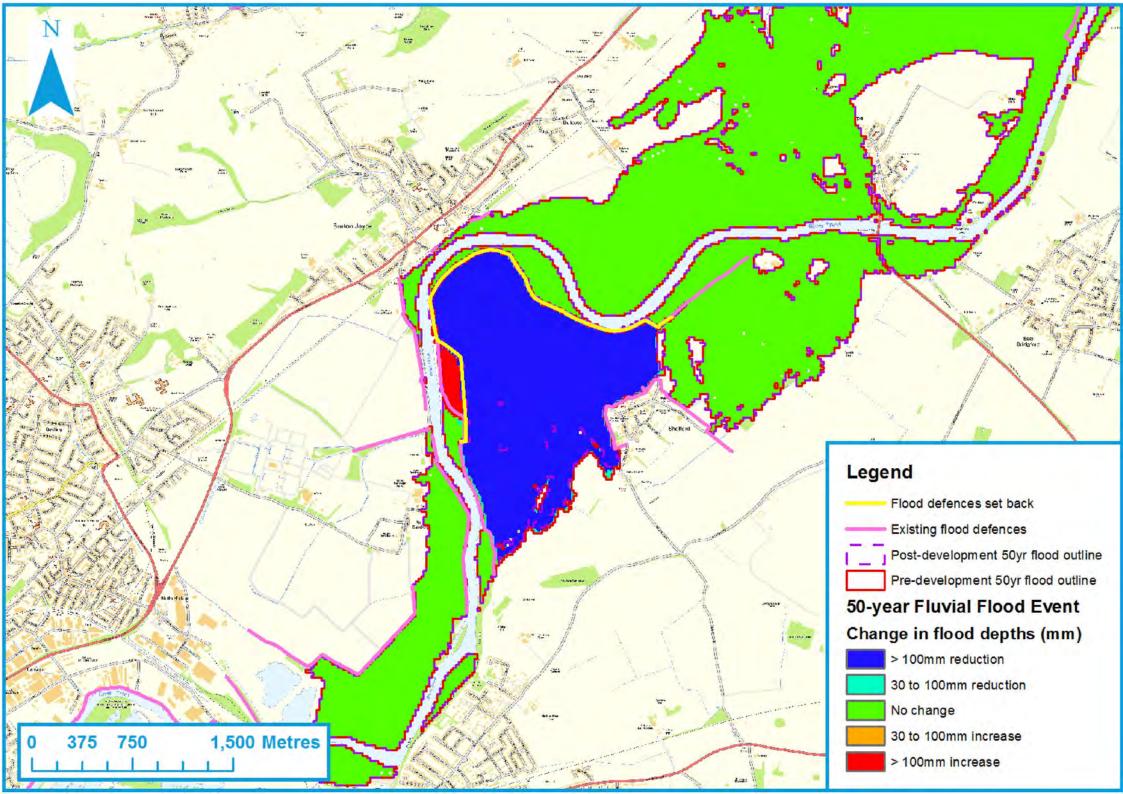
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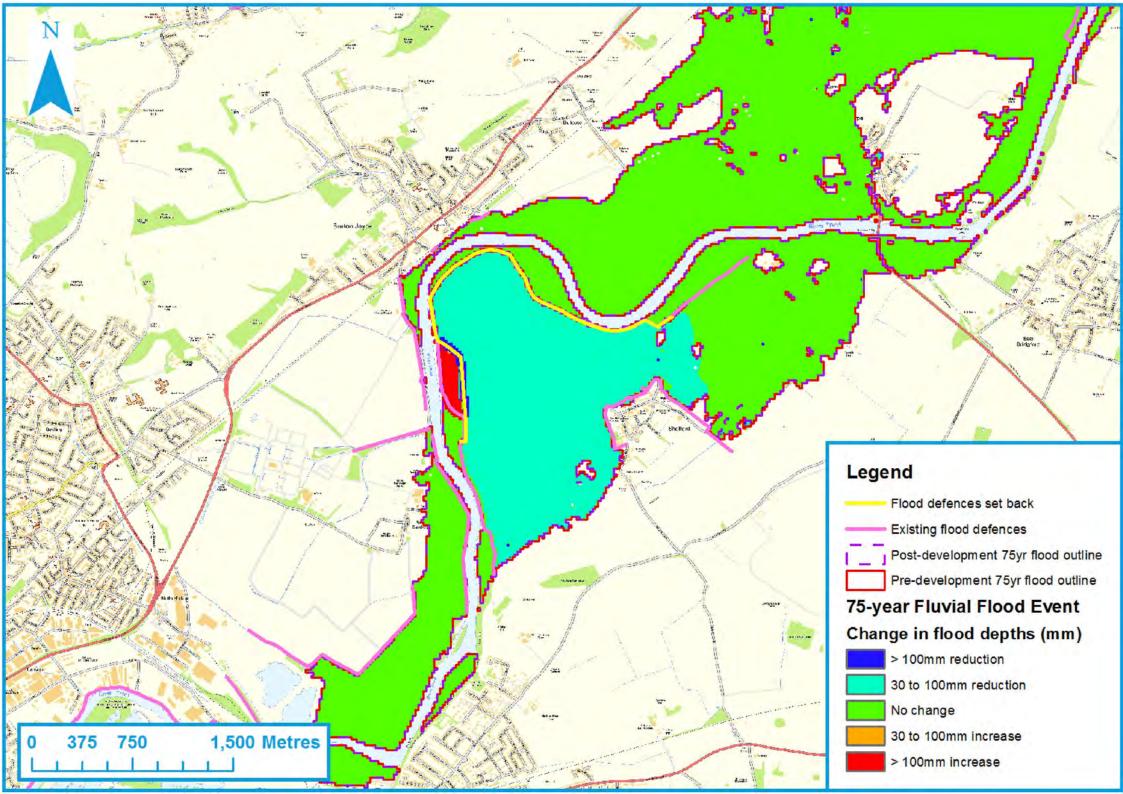
ANNEX B PRELIMINARY FLOOD MODEL RESULTS MAPS FOR SCENARIO 2

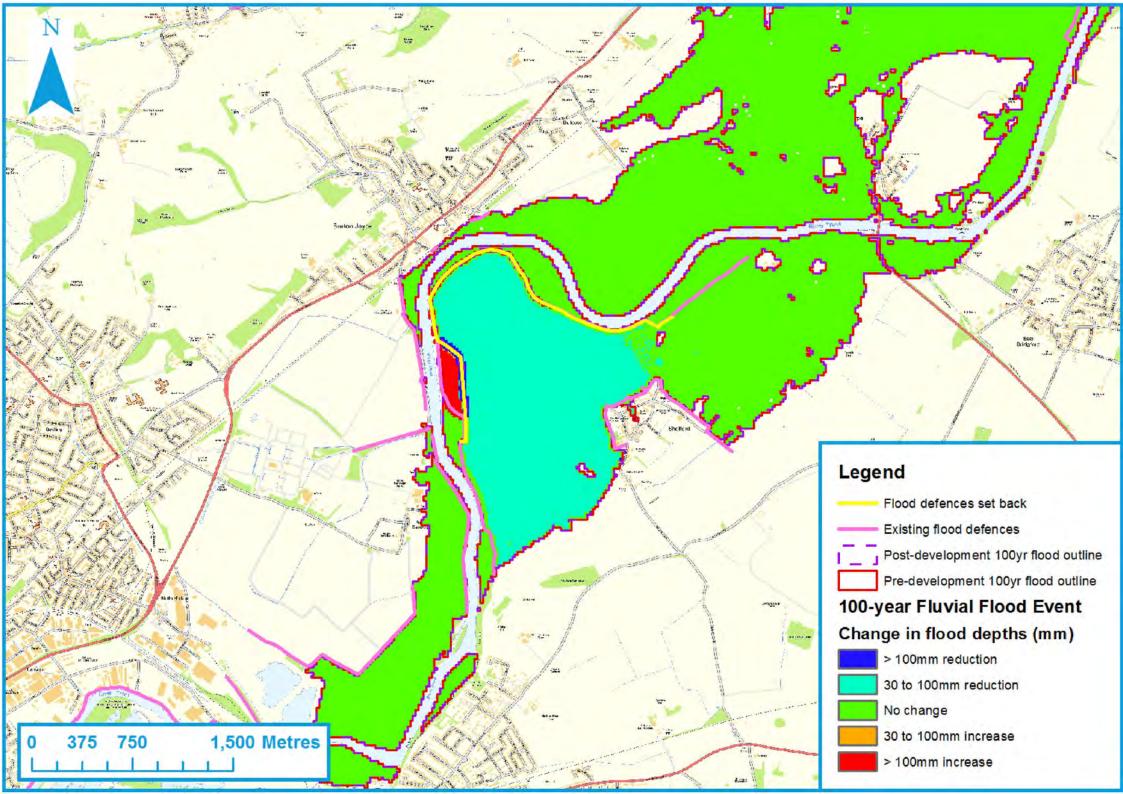


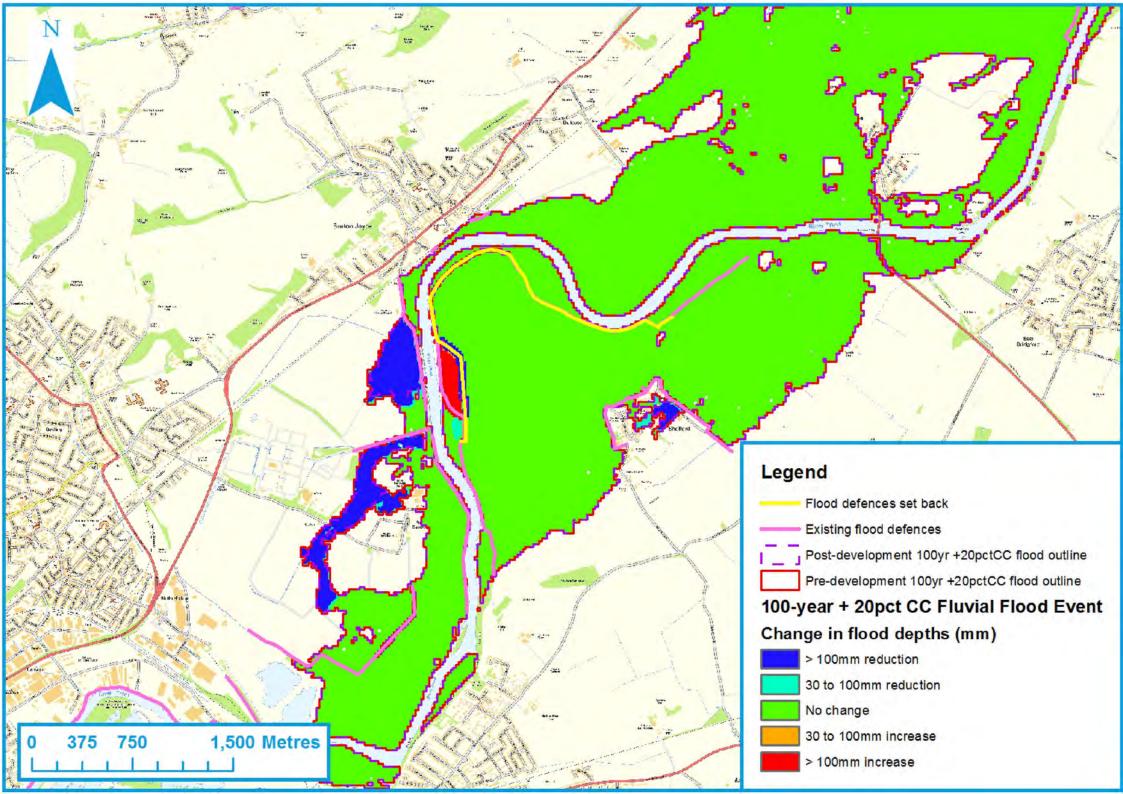








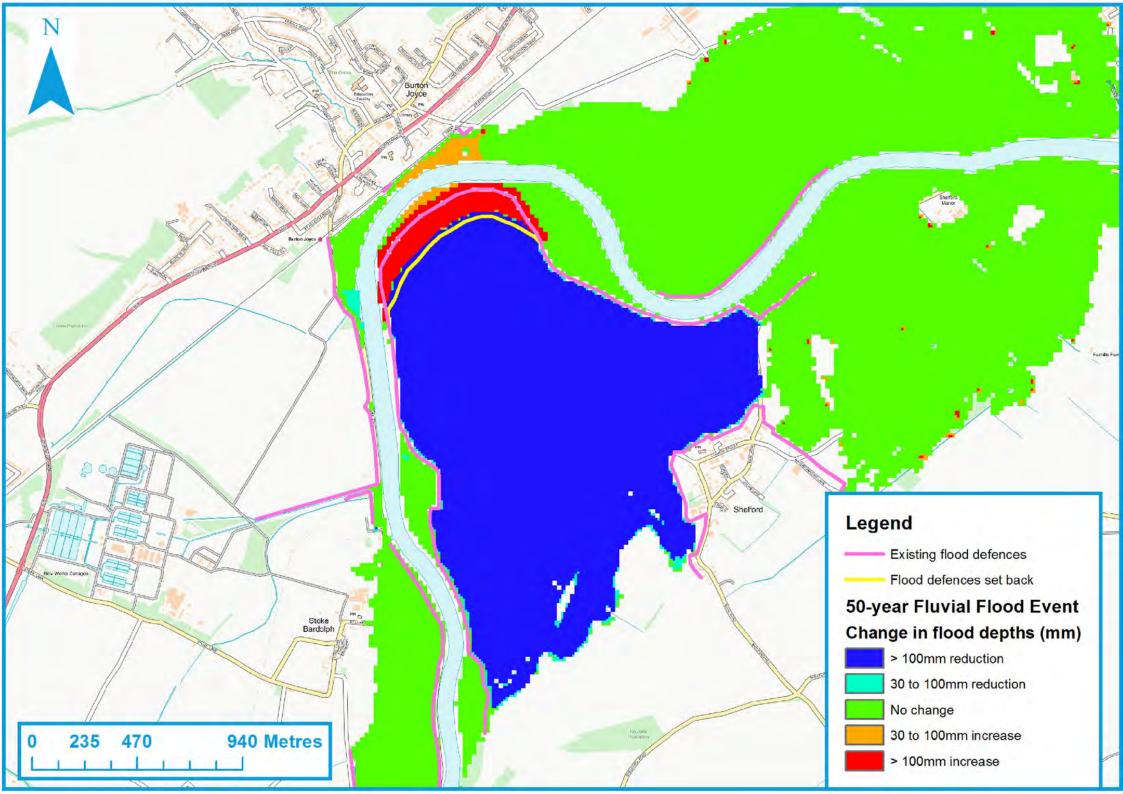




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ANNEX C

PRELIMINARY FLOOD MODEL RESULTS MAP FOR THE 1 IN 50 YEAR EVENT FOR SCENARIO 3



Appendix 9

TECHNICAL NOTE

Project:	Shelford Quarry, Nottinghamshire
CCE Ref:	B161
Title:	TN01 – Review of the Minerals Local Plan Allocations
Prepared by:	Cecilia Thordardottir – Senior Transport Planner
Approved by:	Mark Kirby – Associate Director
Date:	30 th August 2018



Cannon Consulting Engineers Cambridge House, Lanwades Business Park, Kentford, Newmarket, CB8 7PN

1.0 Introduction

- 1.1 Cannon Consulting Engineers (CCE) have been appointed by Brett Aggregates Ltd (BAL) to review the evidence base of the Draft Minerals Local Plan (MLP) prepared by Nottinghamshire County Council (NCC) with specific regard to the proposed sand and gravel site at Shelford.
- 1.2 As the current adopted NCC MLP is out of date, a new MLP is being prepared, which will cover the period to 2036. As part of this process, the 'Issues and Options' stage was completed in January 2018 with responses from the consultation informing the development of the new MLP.
- 1.3 The next stage of the development of the MLP is the consideration of the draft list of site allocations that are intended to meet the identified demand over the new plan period. Consultation in this regard is to take place between the 27th July 2018 and the 28th September 2018.
- 1.4 The *Draft site selection methodology and assessment report* (dated July 2018) sets out the level of future demand for aggregates at Stage 1. Stage 2 was the 'Call for Sites' exercise that took place between December 2017 and January 2018 and resulted in 25 sites being put forward.
- 1.5 Of these 25 sites, Shelford is identified as 1 of 5 sand and gravel sites located near Nottingham with reserves of 6,500,000 tonnes that could be extracted over a 14 year period.
- 1.6 Stage 3 is the testing and deliverability of the proposed sites to establish if there are any 'showstoppers' that would discount a potential site due to a number of different factors. In this regard, comments were sought from key consultees, including the Highways Authorities. It is noted that the Shelford site is recognised to have "no identified deliverability issues", as confirmed in Table 3 of the report.
- 1.7 Stage 4 refers to the assessment documents that have been prepared at a high level in relation to key issues for each proposal in order to enable a comparison to be undertaken as part of the site selection process. These documents include a Sustainability Appraisal, Strategic Flood Risk Assessment, a Strategic Transport Assessment and a Landscape Character Assessment. In addition, the geographical spread of sites, was considered as a key criteria.
- 1.8 Table 9 of the *Draft site selection methodology and assessment report* summarises the key issues for each site and sets out the following with regards the Shelford site:

"This large new site is considered deliverable since it has been promoted by a mineral operator. In overall site assessment terms there are no significant transport impacts and the proposal is that some material is moved by barge to an urban processing plant. Here are relatively high landscape impacts and in assessment against sustainability appraisal objectives, the site scores moderately negatively during the operational phase and a slightly

negative score in the long term. The site is located in the Nottingham area and in light of the number of sites submitted in the Nottingham area, and the need to maintain a geographical spread of sites across the County only a limited number of sites in the area are considered necessary. The size of this site is such that if it were allocated, provision would be limited in other parts of the County and this would not comply with the objective of maintaining a geographical spread of mineral sites across the County. As a result of the above and taking into account the assessment of other sites in the Nottingham area, it is **not considered appropriate** to include the proposal as an allocation in the Draft Minerals Plan."

2.0 Strategic Transport Assessment

2.1 Whilst it is noted that there are "no significant transport impacts and the proposal is that some material is moved by barge", Table 6 from the Draft site selection methodology and assessment report relates to a summary of the highway issues as set out in the Strategic Transport Assessment (STA) that AECOM prepared on behalf of the Planning Policy Team. Table 6 sets out the following with regards the Shelford site:

"Assuming the worst case scenario, the increase in HGVs on the A6097 at the point of the site access would therefore be 18.3% and the increase in general traffic would be 1.1%. As such, the thresholds given within GEART would not be triggered. Main HGV route passes through an existing collision cluster and few sensitive receptors between site and A46."

2.2 It is noted that the STA concluded that none of the sites put forward were unacceptable in principle and therefore none of the sites were removed from consideration as a result of the STA.

STA Assessment Methodology

- 2.3 The STA set out the criteria in terms of assessing all of the sites that were put forward for allocation. The sites were assessed based on the following criteria:
 - Type of site i.e. whether it is a new site or an extension;
 - Access i.e. whether the site has an existing access and to what extent this complies with modern highway standards;
 - Export Mode i.e. if there is potential to export by rail or canal/river which is more sustainable;
 - Export Route i.e. the proximity of the site to the strategic road network and the quality of connecting routes; and
 - Sensitive Receptors i.e. the presence of any development alongside routes connecting to the strategic highway network.
- 2.4 In addition to the above, the duration of site operations were considered but only in terms of acting as a magnifier to other areas of concerns. Road safety has also been considered and road collision statistics for the last 5 years were obtained for the proposed sites.
- 2.5 As part of the assessment, the STA considered existing sites being put forward for extension to be preferable to new sites as these sites will have an established and agreed HGV route.
- To rank the sites, a ranking criterion was set out in Table 5.1 of the STA report. An extract of the ranking criteria is provided at **Figure 1**.

Table 5.1: Ranking Criteria

Rank Category	Category	Description
1	Few Generated Highway Trips	Developments within this category will not produce any additional HGV trips on the highway network (or very few movements), as they may, for example, use the material worked for use in other areas of the site or at a factory / processing plant that adjoins to the site (and which benefits from separate planning permission).
2	Existing Sites connecting to the Trunk road network	Developments within this category are extensions to existing sites whose access provides direct connection onto Trunk roads (or else connect via a very short connector route) for efficient distribution of mineral to the market and with little impact on sensitive receptors.
3	Existing Sites connecting to Local A Roads	Developments within this category are extensions to existing sites whose access is onto locally important A roads. It is assumed this category of A-road would allow efficient distribution of mineral, but may have larger impacts on communities than connecting to a trunk road.
4	Existing Sites with B & Minor Roads	Developments within this category are extensions to existing sites whose access is onto B or more minor roads.
5a	New sites that use Sustainable Export Modes connecting to A Roads	In accordance with the NPPF, developments within this category contain some element in which the magnitude of impact on the highway network is mitigated. For example, some material may be exported by modes other than road such as by barge or rail. (It is assumed that all other transport matters are acceptable).
5b	New sites that use Sustainable Export Modes connecting to B Roads	As above, but connecting to B roads.
6	New Sites connecting to the Trunk road network	Developments within this category are new sites whose access provides direct connection onto Trunk roads (or else connect via a very short connector route).
7	New Sites connecting to Local A Road	Developments within this category are new sites whose access is onto local A roads.
8	New Sites connecting to B & Minor Roads	Developments within this category are new sites whose access is onto B or more minor roads.

Figure 1: Extract from STA - Table 5.1

2.7 As set out in the table above, existing sites will automatically fall into a rank category above any new site. The exception is Rank Category 1 whereby a new site could be ranked in the highest category if the development does not produce any additional HGV trips on the highway network which would presumably entail all material being transported by more sustainable modes such as rail or river.

Site Rankings

2.8 Table 5.2 of the STA sets out how each of the 25 sites assessed ranked in terms of the Rank Categories set out in Table 5.1. **Figure 2**, which is an extract from the STA showing Table 5.2, shows how each site ranked.

Table 5.2: Site Rankings

Rank Category	Rank Title	Rank	Site (s)
1	Few Generated Highway Trips	1	Woodborough Lane (Ibstock)
2	Existing Sites connecting to the Trunk road network (or via short connector route)	2	Burridge Farm (assuming use of existing Cromwell Quarry access)
	Existing Sites connecting to Local A	3	Bestwood II, Langford South & West, Langford North
3	Road	Burridge Farm (assuming Cromwell Quarry a Sestwood II, Langford So Langford North Besthorpe Ea Scrooby Top North Bantycock Quarry (Britis Towns of Banty Road (Brett Aggress) Coddington, Great North Road south Shelford (Brett Aggress) Coddington, Great North Road south Shelford (Brett Aggress) Botany Bay, Scrooby North Road South Shelford (Brett Aggress) Banty Moor (Hanson), Banty Moor (Han	Besthorpe East
	111	5	Scrooby Top North
	2001-00-00 (2004) (2004	6	Bantycock Quarry (British Gypsum)
4	Existing Sites connecting to B & Minor Road	7	Bawtry Road
	2 4 111101 7 1000	8	East Leake
5	New sites that use Sustainable Export Modes	9	Shelford (Brett Aggregates)*
	New Sites connecting to the Trunk	10	Redhill
6	road network (or via short connector route)	11	Cromwell North (plus extensions), Barton in Fabis (London Rock),
		12	Coddington, Great North Road north (plus Great North Road south extension), Shelford (Brett Aggregates)*
7	New Sites connecting to Local A Road	13	Botany Bay, Scrooby North, Scrooby Thompson Land
	*	14	Bamby Moor (Hanson), Barnby Moor (Rotherham Sand & Gravel)
8	New Sites connecting to B & Minor Road	15	Barton in Fabis (Cemex)

^{* -} Shelford is listed twice, to reflect uncertainty as to the quantum of material that could be exported via sustainable transport modes.

Figure 2: Extract from STA – Table 5.2

- 2.9 The table demonstrates that out of all new sites put forward, whether subsequently proposed for allocation or not, Shelford ranks the highest. Shelford has been placed in Category 5a New sites that use Sustainable Export Modes connecting to 'A' roads. Furthermore, Shelford is the only new site that is placed in this category and that is due to the fact that it is proposed to export approximately a third of the material by barge on the River Trent.
- 2.10 It should be noted that Shelford is listed twice in order to reflect uncertainty as to the quantum of material that could be exported via sustainable transport modes, i.e. by barge. As it has been identified that approximately a third of material is expected to be exported by barge, the site should be ranked as 9 and not 12.

Comparison with New Sites

- 2.11 As the new sites being put forward are considered less desirable in transport terms than the existing sites and as the Shelford site is a new site, a direct comparison has been undertaken between Shelford and the 3 new sites that have been proposed for allocation only.
- 2.12 The comparison of the sites is presented in **Table 2** and is based on the assessment criteria from the STA set out above.

Site	Ranking	Туре	Access	Export Mode	Export Route	Sensitive Receptors	Two-Way HGV Movements	Life of Quarry
Shelford	9	New	New access onto A6097	Barge and HGVs	A6097 to A46 which is under 2km away	No Sensitive Receptors	116	14 Years
Mill Hill – Barton in Fabis	11	New	New access onto Barton Lane / Green Street	HGVs only	Green Street to A453 towards either M1 or Nottingham. A453 is approx. 2.6km away.	No Sensitive Receptors	102	12-15 Years
Botany Bay	13	New	New access onto A638	HGVs only	A638 to A634 towards A1 which is approx. 6km away	HGVs would pass through villages along the route.	72	12 Years
Scrooby Thompson Land	13	New	New access onto A638	HGVs only	A638 to B6045 and A634 towards A1 (M) which is approx. 5.7km away.	HGVs would pass through villages along the route.	18	8-10 Years

Table 2: Site Comparison

- 2.13 **Table 2** shows that the Shelford site outperforms the 3 sites proposed for allocation in transport terms. The site it is ranked higher than the other sites mainly due to the fact that a portion of the export from Shelford is proposed to go by barge down the River Trent, close proximity to the A46 and the HGV route not going through any sensitive receptors.
- 2.14 It is noted that the 3 sites that are proposed for allocation are all proposing export by HGVs only, have a longer route to reach the Strategic Road Network and 2 out of the 3 would pass through sensitive receptors (villages) along the route. The sites are proposed to operate between 8 and 15 years and Shelford is proposed to operate for approximately 14 years which is comparable to the others sites.

3.0 Sustainability Appraisal

- 3.1 A Sustainability Appraisal Interim Report (dated July 2018) has been prepared to assist in the process of allocating sites for the MLP. To this extent, 14 Sustainability Appraisal objectives and decision making criteria have been identified, which are set out at Table of 1 the report.
- 3.2 Of these, objective 3 is the most relative to access and traffic impact on the network. Objective 3 is as follows:

Objective	Decision making criteria	
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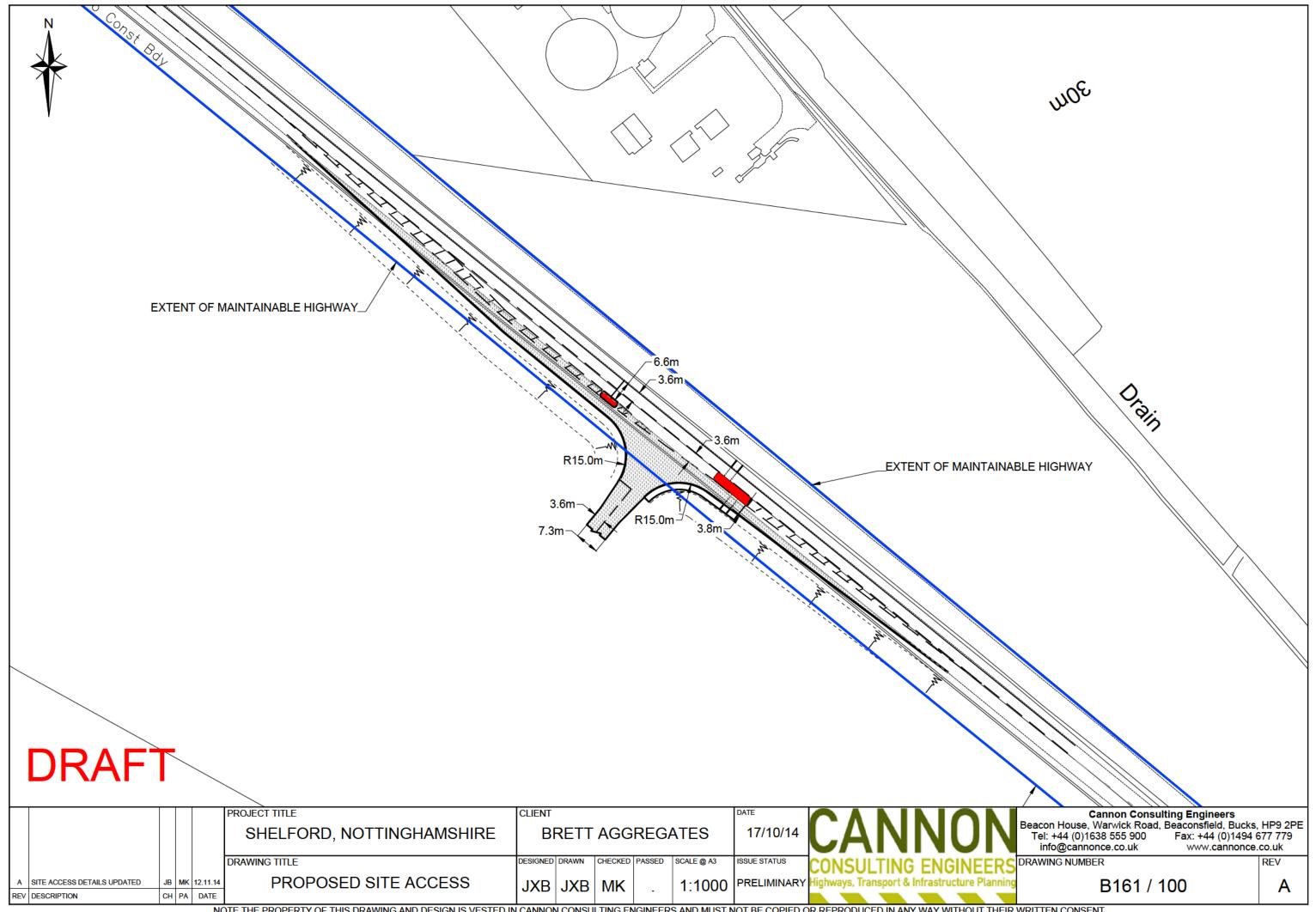
- 3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.
- Will the plan/proposal reduce overall transport distances for minerals?
- Will it reduce road haulage of minerals?
- Will it promote alternative forms of transport?
- Will it reduce/increase road congestion?
- Will it result in sites that are well related to the main highway?
- Will it require new transport infrastructure to be developed?
- 3.3 Shelford is identified as being a sand and gravel site, of which there are a total of 20 sites identified. Shelford is identified as scoring the highest in relation to criteria 3 at a score of +2, which is the same as only 1 other site, namely Burridge Farm.
- 3.4 With the above in mind, and consistent with the STA, it is considered that the Shelford would be one of the most acceptable sites considered in terms of access and potential traffic impact.

4.0 Site Access

- 4.1 The Shelford site is expected to be operational for 14 years. Extraction from the site is expected to generate up to 500,000 tonnes of sand and gravel per year until a maximum of 6.5m tonnes is achieved. Of the 500,000 tonnes to be excavated per annum, 180,000 tonnes would be taken by barge to Colwick Industrial Estate, located to the south west of the Shelford site. The remaining 320,000 tonnes would be taken by conveyor from the Shelford site to the processing plant, proposed to be located in close proximity to the proposed site access junction with the A6097 Bridgford Street.
- 4.2 The STA prepared by AECOM identifies at paragraph 3.3.2 that an export rate of 320,000 tonnes of material per annum would equate to approximately 58 HGV arrivals and 58 HGV departures per average day based on 275 working days per year and a 20 tonne average payload. However, in order to ensure a robust consideration of the proposals and assuming that all 500,000 tonnes were to be exported by road per annum and nothing were to be exported by barge, then paragraph 3.3.3 identifies that 91 HGVs would arrive and 91 HGVs would depart per day.
- In order to ensure that an appropriate means of access from the Shelford site could be achieved, CCE engaged with Jan Witko of NCC highways in 2014. CCE Drawing **B161/100 Rev A Proposed Site Access** (contained at **Attachment 1**) presents the proposed means of access as a signal junction arrangement and Jan Witko confirmed NCC's 'in principle' agreement to the form and location of the signalised site access junction from the A6097 Bridgford Street at a point approximately mid-way between the existing signalised junction of East Bridgford Road (to the south) and the crossroad junction of Main Road and Trent Lane (to the north), which is immediately south of the A6097 Bridgford Street bridge crossing of the River Trent. The correspondence with NCC confirming the 'in principle' agreement is included at **Attachment 2**.
- 4.4 The signalised junction is proposed to be set up on a "demand dependant" basis, which would help to reduce the overall impact on traffic using the A6097 Bridgford Street that is not associated with the development. In addition, it is acknowledged that the proposed site access junction would only be made available for use by traffic associated with the development proposals and at the end of the extraction period, the junction would be removed and the highway reinstated to the original layout.

Attachment 1:

CCE Drawing B161/100 Rev A – Proposed Site Access



Attachment 2:

Correspondence with NCC

Mark Kirby

on behalf of Jan Witko From: Jan Witko

Sent: 30 June 2014 11:08

To: Mark Kirby

Cc: Steven Osborne-James

Subject: RE: Nottinghamshire Minerals Plan

Categories: Orange Category

Mark.

Oddly enough I was just typing up a response your previous e-mail when this one arrived.

Having reviewed your proposals I would comment that they represent a significant improvement over the previously proposed access arrangements. The proposed conveyor should eliminate the need for HGV's to enter Shelford West (P41), reducing the number of HGV trips from the site through the surrounding villages to practically zero.

Similarly, the direct access out on to the A6097 will provide a direct access to the Strategic Road Network, and therefore eliminates the need to HGV's to use the adjacent minor roads.

I have discussed the principle of the access on to the A6097 at the point shown with my colleagues in the Highway Safety, and Transport Strategy Teams. We have concluded that in very broad terms, the principle of an access in this location would be acceptable to the Highway Authority.

The type of junction required will be dictated by detailed design, transport modelling, physical constraints on the ground (visibility) as well as consultations with our Highway Safety Team(Road Safety Audit) and will need to be fully justified prior to any formal planning application. I would also point out at this stage that we would seek to restrict the use of the proposed access as far as possible to only traffic associated with the proposed quarries. No further development will be permitted off of this access, and it will need to be removed once mineral extraction has ceased.

Notwithstanding the above our previous consultation comments with regard to removal of material by river, lorry routing, and the need for a full detailed Transport Assessment to back up the planning application still stand.

I trust the above is acceptable, should you have any further questions feel free to give me a ring to discuss.

Regards,

Jan

From: Mark Kirby

Sent: 30 June 2014 09:45

To: Jan Witko Cc: Martin Green

Subject: RE: Nottinghamshire Minerals Plan

Jan,

Further to our telephone conversation last week, I was hoping that you would have had a chance to chat through the proposal to access the Shelford East site (PA40) directly onto Bridgford Street (A6097) and then introduce a conveyor system between Shelford West (PA41) and Shelford East. This arrangement would mean that the HGV activity would access the SRN directly with no impact on the Environmental Weight Limit (EWL) zone identified.

As we discussed, your "in principle" consideration of this proposal at this stage is all that we would request and of course, any future consideration of the site through the planning process would require a full TA. This would identify the most suitable junction arrangement for the site access.

The planners are meeting later this afternoon to discuss the sites In more detail and you "in principle" acceptance of this arrangement would be appreciated before this meeting this afternoon.

Regards,

Mark

From: Jan Witko

Sent: 25 June 2014 10:36 AM

To: Mark Kirby

Cc: Martin Green; Steven Osborne-James **Subject:** RE: Nottinghamshire Minerals Plan

Mark,

1. Shelford East

The view of the Highway Authority is that should you revert back to the previous access arrangement then our previous comments would apply, namely;

The removal of sand and gravel from the site via the adjacent River Trent should be thoroughly investigated in the first instance.

East Bridgford Road is a country lane which would have to be made up to be suitable for large numbers of lorries and a junction improvement would be likely where it meets the A6097. It would also have to be demonstrated that an appropriate enforceable lorry routeing Agreement can be secured that avoids the villages of Shelford, Newton, East Bridgford, and Radcliffe on Trent.

Any proposed development must be supported by a Transport Assessment (TA) in accordance with the Department for Transport's Guidance on Transport Assessments. The TA must demonstrate that a satisfactory access can be achieved and that the existing local highway infrastructure is adequate or propose appropriate mitigation measures to deal with the additional vehicle movements and include appropriate sustainable transport measures supported by a Travel Plan.

It should be noted that a scheme for an Environmental weight limit for the area is currently being assessed, which could potentially have a bearing on the proposal.

As you can see, the above is by no means a glowing endorsement of the proposal. We would still require East Bridgford Road to be improved, an improvement to the junction of the A6097 and East Bridgford Road, and a lorry routing agreement for it to be considered acceptable.

2. Shelford West

Whilst some of our concerns did relate to traffic routing through Radcliffe this was only one part of the problem with the site. Again, we have concerns about the suitability of the roads which connect the site to the SRN. Our original feedback regarding this site was as follows:

The removal of sand and gravel from the site via the adjacent River Trent should be thoroughly investigated in the first instance.

It is considered that access to the site from Shelford Hill is likely to be inappropriate as existing, due to its width, alignment, and its substandard junction with Shelford Road.

The roads and junctions linking the site to the primary distributor road network would have to be made up to be suitable for large numbers of lorries. It would also have to be demonstrated that an appropriate enforceable lorry routeing Agreement can be secured that avoids the villages of Shelford, Newton, East Bridgford, and Radcliffe on Trent.

Any proposed development must be supported by a Transport Assessment (TA) in accordance with the Department for Transport's Guidance on Transport Assessments. The TA must demonstrate that a satisfactory access can be achieved and that the existing local highway infrastructure is adequate or propose appropriate mitigation measures to deal with the additional vehicle movements and include appropriate sustainable transport measures supported by a Travel Plan.

It should be noted that a scheme for an Environmental weight limit for the area is currently being assessed, which could potentially have a bearing on the proposal.

As per my previous e-mail, we do not consider the proposed improvements to be far reaching enough to address these concerns. In order to address our concerns we would require you demonstrate to us that the whole of the route between the site and the SRN is suitable for HGV's in terms of width, alignment, and construction.

It should also be noted that the Environment al weight limits (EWL) mentioned in both sets of comments above have now been introduced (see attached plan). Recommending approval of any development which leads to an increase in HGV traffic within the EWL area may prove problematical as one of the principle reasons for introducing the limit in the first place was the unsuitability of the local roads for HGV traffic. It is therefore likely that in order to accommodate your development, changes will need to be made to the TRO associated with the weight limit. This will only be done if it can be proven that changes to the local network have been made which make it suitable for HGV's, and the EWL is no longer required.

As we were not involved in the scoring of the sites previously, I am not sure how much consideration was given to the EWL as it had yet to be introduced (and there was no certainty it would be) . However, it is certainly something that needs to be considered now that it is in place.

Regards,

Jan

From: Mark Kirby
Sent: 24 June 2014 15:28

To: Jan Witko **Cc:** Martin Green

Subject: RE: Nottinghamshire Minerals Plan

Jan/Martin,

Thank you for your response. In addressing the access concerns for both sites, I would respond as follows:

1. Shelford East

As per our recent telephone discussion on the 02nd June 2014 and my subsequent email exchange with Steven Osborne-James (see attached), we discussed the opportunity to revert back to the previously acceptable access arrangement from Shelford East via a newly constructed haul road that connects with East Bridgford Road and the traffic signal junction with Bridgford Street (A6097). I clarified that as part of the initial review of the sites, this arrangement scored +1 and was generally accepted by the highway authority as an appropriate means of access to the site. This arrangement was first proposed in 2010. In 2013, the alternative proposal with access to the north directly on to Main Road was proposed. However, this revised access arrangement was not favourably accepted by the highway authority and you reference the relative points as to why this alterative arrangement was not acceptable below.

As such, with the originally proposed access arrangement as the favoured proposal, it is assumed that there is no highway reason that Shelford East is not an acceptable site. Your confirmation in this regard would be appreciated.

2. Shelford West

With regards the proposed improvements to Shelford Hill between the proposed site access junction and the junction of Shelford Hill with Shelford Road that were previously proposed, Martin identified that these improvements were not extensive enough to satisfy any highway concerns for access from Shelford West as it needs to be demonstrated that the site can be connected to the SRN via roads suitable for lorries that avoid villages. It is assumed that there is a highway concern that HGV traffic would pass through the village of Radcliffe-on-Trent along Shelford Road. However, the most appropriate arrangement "on the ground" is to access the SRN from Shelford Road and Main Street to the east of the junction with Shelford Hill that would avoid Radcliffe-on-Trent. This route could link up with East Bridgford Road, as per the arrangement for Shelford East and join the SRN at the signalised junction with Bridgford Street (A6097). This HGV route could be subject to a Lorry Routing Agreement that would prevent HGVs from impacting on Radcliffe-on-Trent or the settlement of Newton.

As such, and subject to a Lorry Routing Agreement, it is assumed that there is no highway reason that Shelford West is not an acceptable site. Your confirmation in this regard would be appreciated.

Regards,

Mark

From: Jan Witko

Sent: 24 June 2014 8:40 AM

To: Mark Kirby **Cc:** Martin Green

Subject: RE: Nottinghamshire Minerals Plan

Mark,

It would appear that my colleague Martin Green was previously consulted on both these revised accesses back in January 2014, as it was he provided the original comments on the traffic aspects of the plan.

His views were as follows;

1. Shelford East

It would have to be demonstrated that the junction of Main Road, Bridgford Street, and Trent Lane could be satisfactorily improved to accommodate lorries and the increase in traffic. This is not without significant difficulty due to the limited visibility at the junction and the constraint caused by the adjacent Gunthorpe Bridge and river limiting space for improvement without major investment.

2. Shelford West

The length of road identified for improvement is nowhere near far reaching enough to address the Highway Authority's previous concerns. It must be demonstrated that the site can be connected to the strategic road network via roads suitable for lorries that avoid villages.

The above issues will need to be resolved before we can offer a favourable response, to the planning authority with regards to your proposals.

Regards,

From: Mark Kirby

Sent: 20 June 2014 12:38

To: Jan Witko

Subject: Nottinghamshire Minerals Plan

Jan,

We spoke on the phone a few weeks ago with regards 2 sites that are being considered in the Nottinghamshire Minerals Plan process, namely Shelford East (PA40) and Shelford West (PA41). These sites are identified on the attached Proposed Sites Map 12, which is contained in the Nottinghamshire Minerals Local Plan Sustainability Appraisal, Additional Consultation on Sand and Gravel Provision document published in May 2014.

With regards the Shelford East (PA40) site, the original proposed access arrangement was to provide a vehicular connection to the site via East Bridgford Road and the existing signalised junction with Bridgford Street (A6097). This is shown indicatively on the DJA plan that was prepared in March 2010 and is attached for info. An alternative access proposal was considered, which proposed an access directly onto Main Road to the north of the site, which runs parallel to the River Trent and just to the west of the bridge crossing of Bridgford Street (A6097) and the cross roads junction with Trent Road. It was agreed in our previous discussions that the Highway Authority's view with regards access to Shelford East is that the original proposal was preferred and acceptable. This scored a positive score in the assessment process.

With regards the Shelford West (PA41) site, the access is proposed to be via a new priority junction on Shelford Hill, which is reflected in the attached Proposed Sites Map 12, which identifies the red line boundary of the proposed access arrangement. For completeness, I have attached an indicative plan (B161/002A) showing the proposed access arrangement from Shelford West, which identifies that it is proposed to not only provide a suitable priority junction on Shelford Hill, but proposes to improve Shelford Hill between the proposed access and the junction with Shelford Road. The land on both sides of the road and in the vicinity of the junction of Shelford Hill with Shelford Road is either highway land or within the private ownership of the landowner of Shelford West and these proposed improvements can therefore be delivered without the need to involve any third party.

A recent discussion with Steven Osborne-James confirmed that both of these sites would be acceptable to the Minerals Planning Authority for inclusion within the Minerals Plan, but that the advice from the highway officer suggests that the access arrangements are not acceptable for them to be included.

I would be grateful if you could confirm why the access arrangements would not be acceptable as we have demonstrated that appropriate improvements could be delivered by the developer to an acceptable standard. These sites are key to the delivery of sustainable sand and gravel deposits likely to serve the future growth of the area in the vicinity of Nottingham City and would prevent the need for material to be delivered by road over far greater distances to serve the market place, which incidentally would pass almost directly alongside these sites.

I understand that you are on leave until Tuesday, but if you would like to discuss this matter further, I am available on the phone or you can email me with any queries. In the meantime I look forward to your response with regards why the access arrangements are no longer considered to be acceptable.

Regards,

Mark Kirby Associate

16 Ledborough Lane Beaconsfield Buckinghamshire HP9 2PZ T. 01494 677255



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BRETT AGGREGATES LTD.

NOTTINGHAMSHIRE COUNTY COUNCIL MINERALS LOCALPLAN PUBLICATION VERSION

30th August – 11th October 2019

October 2019

1 INTRODUCTION.

- 1.1 Brett Aggregates Ltd (BAL) is a wholly owned subsidiary of Robert and Sons Limited (Brett), the aggregates, building materials and civil engineering business, which was established over a century ago. It is the largest independent producer of sand and gravel in the UK. BAL manages all Brett's quarry, marine dredged and recycled aggregates together with coated roadstone operations.
- 1.2 Following withdrawal of the Submission Draft of the Minerals Local Plan (MLP) in 2017 Nottinghamshire County Council (the County) published an Issues an Options document in respect of a revised MLP together with a Call for Sites. and then consulted on a Draft MLP. The County is now seeking responses to the issue of soundness on the Publication Draft version of the Plan.
- 1.3 BAL's interest in Nottinghamshire is in respect of aggregate bearing land adjacent to the River Trent at Shelford. This land represents a significant sand and gravel resource, the future development of which will ensure that Nottinghamshire, in particular the south of the County including the City of Nottingham, will be able to meet a steady and adequate supply of aggregates throughout the plan period whilst minimizing the amount of mineral miles travelled on the County's road network by Heavy Goods Vehicles (HGVs). It will also provide for the delivery of material using the River Trent and the existing wharf at Colwick to bring aggregate into the established industrial area of the City for use in the production of concrete. This approach accords with National Planning Policy Guidance (NPPF) in respect of providing a steady and adequate supply of mineral and sustainable development objectives.

For an MLP to be found sound¹ it is necessary for it to be

Positively prepared

Justified

Effective

Consistent with national policy

1.4 The comments made in this submission relate only to the matter of soundness of the Publication Draft MLP (the Plan) and do not alter BAL's submissions in respect of the withdrawn MLP. The format of this response is to address soundness of the Plan in relation to BAL's areas of interest. As the MLP preparation proceeds and further information becomes available other matters may arise on which BAL may wish to comment.

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¹ NPPF para 182.

2 Overview, Vision and Strategic Objectives

Para 2.4 It is not clear from where the information regarding residential building units is derived. Furthermore, in relation to the Plan the period of time over which the homes will be delivered should be that of the plan period.

Without this amendment the Plan cannot be said to be "positively prepared".

Para 2.31

SO1. Amend the second sentence as follows

"Secure a spatial pattern of mineral development that efficiently and sustainably delivers resources to markets within and outside Nottinghamshire."

Without this amendment the Plan cannot be said to be "consistent with National Policy".

Plan 3: Key diagram

Should be amended to include the site at Shelford as a new site in order to meet the NPPF requirement to plan for "a steady and adequate supply of aggregates".

Without this amendment the Plan cannot be said to be "consistent with National Policy".

3 Strategic Policies

Policy SP1 – Minerals provision

Delete 1.b as this proposal does not take into account the current distribution of permitted reserves in the County which are heavily skewed towards the Newark area and deficient in the south of the County where quarries are now largely worked and restored. This contrasts with the future development proposals which are spatially distributed largely to the south where extensions to existing quarries is limited to just one small quarry.

Without this amendment the Plan cannot be said to be "positively prepared nor consistent with national policy in relation to sustainable development".

Policy SP3 - Climate Change

BAL supports this policy.

Policy SP4 – Sustainable Transport

BAL supports this policy.

Para 3.42 This paragraph should be amended as follows

"However, restrictions on barge sizes on some stretches of the river in order to pass through Cromwell Lock may restrict viability of barging minerals downstream upstream to Nottingham from the Newark area."

This amendment is needed to make clear that some mineral resources along the river are accessible in relation to the Nottingham market and in particular the Colwick Wharf which is protected in the Plan.

Without this amendment the Plan cannot be said to be "positively prepared or consistent with national policy in relation to sustainable development".

Para. 3.87. BAL supports the identification of Colwick Wharf as a location where sand and gravel can be landed. For the sake of clarity the names of the protected wharves should be set out in policy SP7 a map provided for each wharf as part of the proposals map to show what area of land is protected.

Without this amendment the Plan cannot be said to be "effective"

4 Minerals Provision Policies

BAL object to the draft approach being taken .National Policy in relation to planning for future aggregate demand is to be found in the NPPF.

- 4.1 The assessment of need on which the County bases its MLP is an essential component of this process as follows. For the plan to be positively prepared it must look forward on the basis that proposed development as set out in other plans and proposals will come forward and that need must be met through adequate allocation of resources in the MLP. This requirement must also be met for the MLP to be justified and effective.
- 4.2 The requirement for the MLP to be consistent with national policy in relation to assessing need and in particular the calculation of an adequate landbank requirement for an MLP can be found in the NPPF as follows²
 - Preparing an annual Local Aggregates Assessment (LAA) based on a rolling average of 10 years sales data and other relevant local information.
 - Ensuring that large landbanks bound up in a very few sites do not stifle competition.
- 4.3 The County has based the assessment of future sand and gravel provision on the LAA derived annual production figure of 1.7MTPA. This is an average of the past 10 years annual production (2007 to 2016)³. Using this figure the County propose that a total of 32.3MT of sand and gravel will be required during the 19

² NPPF para 145

⁻

³ MLP Tables 1 and 2 page 51.

year plan period (1.7 x19 = 32.3MT). The County has assessed that at December 2016 the landbank for sand and gravel stood at 17.5MT. In 2018 a further 3.6MT of sand and gravel reserves have been permitted at Langford Lowlands Quarry giving a total reserve of 21.1MT and a shortfall of 11.2MT for which the County are now proposing to cover through allocations of extensions and new sites. However, the plan period starts in 2018 and the baseline figure for the landbank which the County has used is 2016. This means that a further 2 years of production must be deducted from the original landbank making the shortfall (32.3 - (21.1 - 3.4 = 17.7) = 14.6). Furthermore, the County also need to be able to show that at the end of the plan period a 7 year landbank will remain in place. This requires adding a further 11.9MT to the requirement giving a total requirement of 26.5MT (14.6 +11.9). This is the total requirement for the plan period based on the past 10 year average annual sales and in order to ensure that a 7 year landbank remains at the end of the plan period.

- 4.4 It is clear from the NPPF⁴ that the 10 year rolling average should be a starting point and that other local factors should be taken into account. National Planning Practice Guidance gives advice as to what local factors should be taken into account. The guidance is that relevant local information used should be that which seeks to look ahead rather than just relying on past sales. The guidance goes onto advise that such information may include levels of planned construction and house building in the local area but also " throughout the country" ⁵
- 4.5 The Planning Officers Society in conjunction with the Mineral Products Association have also produced useful practical guidance in assessing need

⁴ NPPF para 207 (a)

⁵ Planning Practice Guidance Para 064

and in particular what sort of local information should be used in considering the adequacy of the 10 year rolling average. These include⁶:-

- · Geological resources being exhausted
- Trends and forecasts of population change including information in Local Plans on housebuilding.
- Validated data on aggregate use in construction provided by the MPA.
- Planned major infrastructure projects including those within the County and 30 miles beyond as detailed in the National Infrastructure Plan 2016-2020. Also those projects included in Local Economic Partnerships Growth Deals and Strategic Economic Plans together with construction projects identified in District and Unitary Authority's infrastructure Development Plans. Planned highway improvement and maintenance works should also be considered.
- Local Regional and national economic forecasts from various sources.
- Information from the minerals industry on the availability of marine materials.
- Major new sources of recycled or secondary material becoming available.
- New environmental constraints being identified in aggregate producing areas or in proximity to them.
- 4.6 In looking at the appropriateness of the rolling 10 year average as the basis for calculating future demand it is essential that the veracity of the information is examined forensically. In particular are there any factors which have influenced the data such that it does not truly reflect the production of aggregate in the County to the extent that it cannot be relied upon to predict future need. In

9

⁶ Practice Guidance on The Production and Use of LAAs May 2017 (POS/MPA Guidance) para 3.8

terms of the basis of a future MLP will it result in a plan which is not *justified* or *effective* in terms of whether the plan is sound.

4.7 Geological resources being exhausted and the issue of Finningly Quarry.

Finningley Quarry is situated on the northern border of Nottinghamshire where is abuts Doncaster. It should be noted that the latest Nottinghamshire LAA (Oct 2017) advises that the annual production figures for the County have been affected by production at Finningley moving across the border into some of the years covered by the latest 10 years of production⁷. If this situation were to continue to operate in the future, that is production moving in and out of the County then its inclusion in the 10 year rolling average would be a sound basis for predicting future need. However, the Notts LAA advises⁸ that the reserves in both Doncaster and Rotherham (also referred to as South Yorkshire) are extremely limited and future supplies will be coming from Nottinghamshire, in particular the quarry at Sturton le Steeple which has permitted reserves and is well located to be able to supply across the border..

4.8 This being the case it is necessary to look at the impact Finningley Quarry moving across the border has had on the last 10 years production in Nottinghamshire. This can be done by looking at the Doncaster and Rotherham LAA. Whilst individual quarry production is confidential the explanation below Table 1 makes it clear that production decreased in 2010 from 0.5MT to 0.16MT probably due to production at Finningley moving across the border into Nottinghamshire. Looking at Table 1 production from 2006 to 2015 was either 0.4/5MT or 0.14/5/6MT which indicates that at the higher levels production at Finningley was in Doncaster and at the lower levels it was in Nottinghamshire. Consequently from Table 1 we can deduce which years there would have been a shortfall in the Finningley contribution to the Nottinghamshire landbank and we can calculate the annual difference this will make by averaging the higher

⁷ Notts LAA Oct 2017 para 3.1.

⁸ Notts LAA Oct 2017 para 5.11

and lower figures and subtracting the lower from the higher. The difference is calculated as 0.3MT (0.45MT less 0.15MT).

4.9 The Nottinghamshire 10 year rolling average for sand and gravel is based on the years 2007 to 2016 whilst the Rotherham and Doncaster LAA is based on 2006 to 2015. However, the Notts LAA does advise that in 2016 production in Finningley was across the border in Doncaster. This means it is possible to estimate the amount of the shortfall in the Nottinghamshire 2007 to 2016 production figures attributable to production at Finningley being in Doncaster. The calculation is based on the table below.

Table 1

Year	2007	2008	2009	2015	2016	TOTAL
MT	0.3	0.3	0.3	0.3	0.3	1.5

- 4.10 The 10 year rolling average if being used to predict future requirement in Nottinghamshire should now be calculated using 10 years annual production which includes the Finningley missing years as detailed above. That requires an addition 1.5MT to be added to the 17.04MT to give 18.54MT and results in a 10 year average annual sales of 1.85MT compared with the County's calculation of 1.70MT. The contribution of Finningley Quarry to the landbank is clearly a significant local factor which should be taken into account in using the 10 year rolling average as the basis for predicting future need.
- 4.11 **Population Change and house building.** The second local factor which needs to be taken into account in reviewing the 10 year rolling average is house building rates in the County and what is now planned. The County's

latest LAA (October 2017, December 2016 data) sets out the planned house building rates for the individual planning authorities in the County. It is important to note that these are not maximum rates but are those which have been rigorously tested through the Local Plan processes including Strategic Housing Market Assessments and in some cases full Independent Examination procedures. It is also important to note that the Local Plans on which these house building rates are based were using pre 2014 Office of National Statistic (ONS) data. The 2014 when applied to the districts in Nottinghamshire will invariably lead to an increase in requirement. Consequently the impact of the planned house building rates should be considered as a minimum on which aggregate requirement should be based.

- 4.12 At Appendix 1 is a Table 2 which shows the house building rates for the local planning authority areas in Nottinghamshire over the 10 year period covering that being used by the County for the 10 year rolling average. The information contained within Table 2 has been taken from the Annual Monitoring Reports and other documents produced by the LPAs. The extracts from these documents can also be found at Appendix 1.
- 4.13 From Table 2 it can be seen that the average annual house building rate per LPA area over the past 10 years has been 351 units per annum. This figure is directly comparable with the average annual sand and gravel production rates calculated from the past 10 years production. Table 2 uses the future house building rates deduced by the County in the October 2017 LAA⁹ to show that the average future rate will be 571 dwellings per annum. This is an increase of 220 dwellings per annum and represents a 63% increase. It is essential that this increase is taken as the minimum as it is based on solid evidence, it is not stated as a maximum so may be exceeded and is likely to be an underestimate based on the 2014 ONS data and the latest government advice that house building must increase. The population of Nottinghamshire including the County

⁹ Para 5.9 Table 8

is expected to grow from 1.13 million in 2016 to 1.25 million in 2036. This growth will require at least the planned housebuilding detailed on Table 2 which is based on the lower pre ONS 2014 estimates and it should be noted that as house building picks up following the recession the annual average rate per authority has already reached 468 dwellings per annum (2015/6) which is 81% of the planned annual requirement.

- 4.14 Validated data on aggregate use in construction is provided by the MPA. The October 2017 LAA references the use of aggregates in house building as being 20% of total production. Although it should be noted that at the recent examination into the Oxfordshire MLP 35% was used. It should be noted that house building requires significant support infrastructure such as local roads, schools, village, utilities etc. These are delivered through planned infrastructure delivery policies contained within Local Plans and funded through Community Infrastructure Levy (CIL) or S.106 agreement payments. Therefore, the additional aggregate required to provide for this local infrastructure will rise commensurately with the housebuilding. Furthermore, significant large scale infrastructure can also be tied to housing delivery, in the case of Nottinghamshire the southern relief road at Newark is an example.
- 4.15 Planned major infrastructure projects. The October 2017 LAA notes that no further major infrastructure projects have been identified since the production of the previous LAA (January 2017). However, the January 2017 LAA was based on significantly higher rolling 10 year average taking into account partly pre recession construction levels and, therefore, capturing higher level of construction. With the move to the most recent 10 year rolling average this is no longer the case and the LAA needs to recognize that planned infrastructure for the future is significantly higher than accounted for by the 10 year rolling average which now almost solely covering a recession period when infrastructure projects were virtually non existent. An adjustment to the 10 year

average which determines the future landbank needs to be made in order for the MLP to be based on realistic future aggregate need.

- 4.16 Infrastructure identified in the National Infrastructure Delivery Plan 2016 to 2021 for the Nottinghamshire area is:-
 - Midland Main Line. Further electrification to Nottingham.
 - East Coast Mainline. Station, signaling and track works to facilitate longer new Super Express Trains.
 - HS2.

It should be noted that the time period for this infrastructure plan is just 5 years and represents only 16% of the MLP plan period. Also included in the plan is reference to the Midlands Engine and the proposal for carrying out feasibility studies in respect of upgrades to the M1 and Smart motorway improvements together with improvements to the A46 Newark bypass and its intersection with the A1.

- 4.17 The Local Enterprise Partnership D2N2 (covering Nottingham and Derby and parts of both counties) has produced a programme which includes a target to create 50,000 jobs and to build 77,000 dwellings. The dwellings are included in Local Plans but D2N2 are intending to ensure that infrastructure delivery does not frustrate the building of the dwellings.
- 4.18 East Midlands airport which lies alongside the HS2 route is planning to increase from 4.3 to 10 million passengers and 300,000 to 700,000t of freight by 2040. The majority of this development will occur in the MLP plan period. A major freight terminal is also planned for the M1 j23a/24. Whilst this is in Leicestershire it lies within the 30 mile zone beyond the County boundary which

the POS/MPA advice considers should be included in any future assessment for aggregate provision within a County.

- 4.19 Local regional and national economic forecast. The latest MPA forecasts (February 2019) suggest that aggregate demand will have increased by 19% by 2019 compared to 2015. Infrastructure growth is expected to be 56% from 2015 to 2019. In the longer term replenishment rates for sand and gravel show that for every 100 tonnes of material used planning permissions for replacement accounts for only 56 tonnes indicating that in the future shortages of supply will be apparent.
- 4.20 **Availability of marine materials.** Nottinghamshire is a landlocked county and some distance from any marine sourced aggregate landing facility. Consequently the material is not used in the County.
- 4.21 Major new sources of recycled or secondary material. For Nottinghamshire inert waste processing (considered suitable for recycled aggregate production) has now recovered to pre recession rates. However, whilst power station ash is capable of being substituted for primary aggregates the 3 coal fired power stations within the County are all planned to be closed by 2025. It would, therefore, be unwise to rely on any further increase in recycled output and in fact a reduction in availability of this material should be planned.
- 4.22 **New environmental constraints.** No new environmental constraints which could restrict aggregate extraction in the County have been identified. Locally the ban on extraction in the Peak District National Park has been accounted for by Derbyshire planning to increase production in the rest of the County by an

amount equivalent to that to be lost through lack of production in the National Park.

- 4.23 It is apparent from the above information that there are a number of factors pointing to the need to modify the rolling 10 year average if a robust prediction of future need is to be made. The evidence is that the figure will need to be increased on the basis that during the MLP period more aggregate will have to be exported to South Yorkshire, a greater number of dwellings will be built, more jobs created and more infrastructure built. Of these elements it has been possible to quantify numerically only the impact of the increase in future exports to South Yorkshire and house building rates. House building is considered to represent the use of only 20 to 35% of the total supply of aggregate. However, house building is a key component in providing dwellings for new employees who will occupy newly constructed factories and commercial premises. House building also drives infrastructure provision including roads, such as those around Newark, schools, hospitals etc. It is, therefore, proposed that the house building rates of the past 10 years be compared with aggregate use of the same period and then used to predict future aggregate requirement.
- 4.24 Taking the 1.85MTPA (10 year rolling average modified to take account of the Finningley Quarry production changes within the County) is comparable with a 10 year rolling average house building rate of per local authority (including Nottingham City) of 351 dwellings per annum. The future house building rate is 572 dwellings per annum. This is an increase of 63% and will require a similar increase in aggregate production going forward. This requires that the 10 year rolling average be increased by 63% (1.63 x 1.85) to **3.02MT.**

Taking this figure as the annual requirement and applying it to the 19 years of the plan period and leaving a 7 year landbank at the end of that period gives a total requirement of 78.52MT. In order to calculate the level of new allocations needed the current landbank of 17.7MT should be deducted. Therefore, a total of **60.82MT** additional reserves needs to be allocated in the MLP.

In order to fully understand why Nottinghamshire has failed to increase its annual production of aggregate to that approaching its pre recession rates it is useful to look at the 10 year production rates for the counties making up the East Midlands AWP area. Table 3 shows figures taken from the LAAs for these counties. The East Midlands in 2016 had reached 70% of its pre recession production rate. Three counties were at around pre recession levels with two counties actually producing more. Lincolnshire is now producing 64% of its pre recession level but Nottinghamshire is only at 40%. It is clear that lack of production in Nottinghamshire is holding back the East Midlands in reaching pre recession production levels. This assessment further supports the need to increase the proposed landbank above that which would result from solely using the rolling 10 year landbank as the basis for future need prediction and planning.

- 4.25 In order for the Plan to be sound in respect of being positively prepared, justified, effective and compliant with national policy¹⁰ Policy MP1 Aggregate Provision should be amended as follows:-
 - 1. "To meet identified levels of demand for aggregate mineral over the plan period (2018-2036) and to ensure that a 7 year landbank remains at the end of the plan period the following provision will be made:
 - 32.30 60.82 million tonnes of Sand and Gravel

In respect of Policy MP2 additional sites will need to be allocated. As currently the policy only provides for an additional 11.8MT to be added to the current landbank when the actual shortfall is 60.82MT. This means that additionally a further 49.02MT of reserves are needed to make the plan sound. BAL propose that the It should be noted that the existing reserves identified in Policy MP2 add up to a higher figure (23.31MT) than that used in the following justifying paragraphs site at Shelford which is capable of delivering a total of 6.5MT should be allocated.

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¹⁰ NPPF para 207 "...plan for a steady and adequate supply of aggregates..."

- 4.26 The Draft MLP stated that the site specific allocations are based on a consideration of five options which were narrowed down to two criteria on which the decision to allocate was based. Firstly, the need to have a geographical spread of sites across the County and secondly to prioritise locations with potential for transporting sand and gravel by river barge. BAL considers that this approach is appropriate.
- 4.27 The draft MLP was supported by A Draft site selection methodology and assessment document, July 2018, (Draft Site Selection Document)) and Draft Minerals Local Plan Sustainability Appraisal Interim Report, July 2018 (Draft SA). The Draft SA contains a detailed numerically based site assessment methodology and a numerical assessment of all the sites put forward. This is surprising because the draft MLP specifically excludes as one of the five options considered allocating sites based on their particular merits. The SA numerical assessment is then taken forward in the Draft Site Selection Document (Section 6) where the geographical spread of sites is stated as the main basis in determining which sites to allocate although this is not based on an objectively assessed need for each area. The ability of material to be transported by river barge was not given priority in the final site selection process. The current MLP is supported by a new Site Selection methodology and Assessment which does not prioritise the ability of sites to deliver mineral by non road methods of transport at all. In this respect the failure to allocate the Shelford site which is the only site where river transport is proposed means that the plan is not sound in respect of compliance with NPPF in relation to promoting sustainable transport¹¹.

¹¹ NPPF para 102 b.

- 4.28 BAL consider that it is necessary to maintain a geographical spread of quarries and permitted reserves across the County for two reasons. Firstly is the cost of transporting bulky materials relative to value that in respect of aggregates is low. This means that an appropriate geographic spread is important to ensure that the economy works effectively and additional costs are not unnecessarily incurred. It is also the case that for this reason proposed aggregate reserves should be matched geographically to where those reserves will be used. Secondly is the issue of environmental impact caused by HGV movements associated with aggregate transport.
- 4.29 Below Table 5 shows the current distribution of permitted reserves compared with spatial requirement for future house building. This is based on the information contained within the October 2017 LAA in respect of permitted reserves and Table 4 at Appendix 3 of this document.

Table 5, Comparison of permitted reserves with future house building requirement.

	District	S and G	Housing requirement per annum (see Table 2)
Newark area	Newark and Sherwood	40%	16%
South Notts	Nottingham City Gedling Broxtowe Rushcliffe	0/12%*	56%
North Notts	Bassetlaw	28%	18%

Mansfield	
Ashfield	

^{*} Currently no reserves but East Leake planning application now with a resolution to grant subject to a S.106 Agreement to be completed.

The current distribution is not sustainable in terms of transportation of aggregate and the consequences for air quality and climate change. If extensions to quarries were to be preferred compared to opening up new sites this unsustainable distribution will continue. This is not in accordance with the NPPF in respect of sustainable development.

4.30 In respect of the geographical distribution of aggregate production in the County Table 6 below shows the comparison between future housebuilding in the three aggregate production areas identified by the County and the proposed geographical spread of aggregate production (permitted and proposed) in the draft MLP. There is a significant discrepancy between the two factors with 16% of the housebuilding taking place in the Newark area whilst 46% of the aggregate reserves are planned to be here. In respect of Idle Valley (north Nottinghamshire) 18% of the housebuilding for the County is planned to be here but 36% of the aggregate reserves are proposed in the draft MLP. Meanwhile in the south of the County where 56% of the housebuilding is planned only 18% of the aggregate reserves are proposed in the MLP.

Table 6 comparison of geographical spread of future planned house building and aggregate production in draft MLP.

District	Annual	Permitted	Draft MLP	Total
	dwellings	reserves	proposed	reserves
	future	(MT)	allocation	and %
	requirement		(MT)	per area

Newark area	Newark and	740 (16%)	7.80	8.3	16.1
	Sherwood				(46%)
South Notts	Nottingham City	2,571 (56%)	2.34	3.75	6.09
	Gedling				(18%)
	Broxtowe				
	Rushcliffe				
North Notts	Bassetlaw	1,263(18%)	8.97	3.41	12.38
	Mansfield				(36%)
	Ashfield				
TOTAL					34.57

- 4.31 Taking into account the information in Table 6 it is surprising that the Shelford site (located in the South) was dismissed as a proposed allocation in the draft MLP solely on the basis that to allocate such a large site (6.5MT) in the south would skew the geographical distribution whilst factually Shelford should be allocated to maintain the correct geographical spread of allocated and permitted reserves in the County.
- 4.32 Even if the limited landbank proposed by the County is accepted (BAL object to the limited landbank, see above) in order to meet the objective set out under policy MP2 of having a geographical spread and meeting the requirement for the plan to be "justified" more aggregate should be allocated in the south and less in the north. This can be achieved within the limited landbank put forward by deleting Botany Bay and Mill Hill (or alternatively one of the proposed Newark sites) as new allocations and substituting Shelford. This has the added

benefit of meeting the second MP2 site selection criteria which is "potential for transporting sand and gravel by river barge" and with which Shelford is the only site complying. Furthermore, the allocation of Shelford would lead to a better commercial balance of supply than is currently, and proposed to be, the case by introducing a new operator into the County. This will ensure that the plan is sound with respect to NPPF para 207 (g).

- 4.33 The correct geographical distribution of aggregate resources proposed in the draft MLP is important because of the impact of moving mineral within the County and bringing mineral in from surrounding counties if the distribution does not match planned development. The above analysis has used housebuilding as a marker because the level of housebuilding reflects where jobs are to be created and consequently commercial development, local infrastructure and major infrastructure. Much of the infrastructure identified above in relation to the landbank assessment will take place in the south of the County and includes East Midlands airport expansion, HS2, works to the Nottingham railway line etc. The consequences of not sourcing mineral close to where it is needed are that more miles are travelled by HGVs transporting the mineral. This has a negative impact on air quality and in the long run climate change.
- 4.34 The air quality and climate consequences have been assessed with respect to HGV movements associated with the proposed Shelford Quarry and those at Newark in the attached (Appendix 4) RPS document. This gives an indication of the problems associated with having a poor geographical distribution of mineral resources in the County.
- 4.35 In respect of Shelford and the site assessment which has been undertaken BAL has been surprised that a site which was assessed as scoring well under the previous, now withdrawn MLP, has now scored somewhat poorly. Whilst

this has not led to officers proposing not to allocate the site which as set out above was solely on the basis of geographical spread of sites the documents underpinning the scoring have been analyzed and series of reports prepared. Previously the County scored the Shelford site as -6 during the operational phase and 0 in the post operational phase. In the current SA the site is scored - 10 in the operational phase and -1 in the post operational phase. Although it should be noted that the summation of the actual SA scores results in a total +2 for the long term.

- 4.36 BAL has commissioned reports on the various areas of the assessment where it is considered that discrepancies have arisen. It should be noted that since the previous site assessment BAL has undertaken significant work with respect to the site with a view to submitting a planning application. This work was halted when the previous MLP in which Shelford was allocated was withdrawn. However, that work is recent and remains relevant. Some of it has been taken into account in the assessment, in particular that in respect of the historic environment. However, other work, in particular with regard to ecology and hydrology has not been taken into account. Reports in respect of Landscape, hydrology, ecology and transport are attached as appendices.
- 4.37 The completion of the surveys and other work at Shelford mean that the deliverability of the site can be assured. In the site assessment process the County has determined that Shelford is deliverable. This is an important factor in determining the soundness of the plan.
- 4.38 Below is a table showing a comparison of the scoring for the Shelford site in the current SA and that as assessed by BAL. Below the table is an explanation in respect of each topic.

Table 7. Shelford site assessment comparison

SA Objectives Effect				
	Publication [Draft MLP	BAL	
	Operation	Long term	Operation	Long term
	period		period	
1.Ensure that adequate provision is made to	+3	0	+3	0
meet local and national demand				
2.Protect and enhance biodiversity at all	-1	+2	0	+2
levels and safeguard features of geological				
interest				
3. Promote sustainable patterns of	+2	0	+2	0
movement and the use of more sustainable				
modes of transport				
4.Protect the quality of the historic	-2	1	-1	+1
environment, heritage assets and their				
settings above and below ground				
5.Protect and enhance the quality and	-3	-3	-2	+2
character of our townscape and landscape				
6.Minimise impact and risk of flooding	-3	1	+1	+1
7. Minimise any possible impacts on and	?	1	+1	+1
increase adaptability to, climate change.				
8. Protect high quality agricultural land and	-2	-2	-2	-2
soil				
9. Promote more efficient use of land and	0	?	0	0
resources				
10. Promote energy efficiency and maximize	?	?	+1	0
renewable energy opportunities from new				
or existing development				
11.Protect and improve local air quality	-3	0	-2	0
12. Protect and improve water quality and	-1	0	0	
promote efficient use of water				
13.Support wider economic development	+3	0	+3	0
and promote local job opportunities				
14.Protect and improve human health and	-3	+2	-2	+2
quality of life				
		_		_
TOTAL	-10	+2	+5	+7

Biodiversity. The operational phase score has been downgraded to reflect that the site will be worked wet so there will be no disturbance to the hydrology of the nearby locally designated wildlife sites.

Landscape. This aspect of the assessment has shown the most significant change in scoring for the site changing from -2 to -3 during the operational

phase but most surprising changing from -1 to -3 in the long term. The BAL landscape assessment analysis has found that the approach adopted by the County does not allow for an area to be not typical of its character area nor the possibility that positive impacts are possible where a landscape is sensitive to change. In particular the County's landscape analysis fails to understand that the course of the Trent has changed at Shelford, the river now runs through a highly engineered channel and the flood defences along the river have allowed intensive agriculture with large scale arable fields predominating. The mineral extraction provides a significant opportunity to reintroduce the water meadows adjacent to the village and overall a water environment which reflects the historic landscape context. This is a positive aspect of the restoration which is not reflected in the -3 for the long term score.

Flooding. Whilst designing the final restoration scheme for the site initial flood modeling was carried out to see whether flood defences adjacent to the river (these are secondary to those adjacent to Shelford village) could be removed to allow the reconnection of the floodplain. Unfortunately only partial realignment of the flood defence is possible because the flood modeling has shown that under various scenarios the Shelford land and its defences acts to reduce the impact of flooding further downstream. This work has shown that the site can be worked without increasing risk of flooding and in fact during the operational stage there will be an opportunity to improve the defences adjacent to the village. The operational score has been increased to reflect the work carried out and the potential to reduce the risk of flooding during the operations phase.

Climate change. Shelford is the only site where river barging is proposed. This will produce a positive impact from one third of the material being transported in a way that has less impact on climate. The operational score has been amended accordingly.

Efficient use of land. Previously the site assessment viewed larger sites as being more efficient as lots of smaller sites require numerous processing and other plant. This is still the case and the score has been amended accordingly.

Energy efficiency. One third of the material at Shelford will be transported by barge which is a significantly more energy efficient than road transport. The score has been amended accordingly.

Air quality. One third of the material at Shelford will be transported by barge which will result in less pollution than if that volume of material came from a site where only road transport were to be able. The score has been amended accordingly.

Water Quality. It is proposed that there will be no dewatering when the site is worked and there will be no imported material brought into the site consequently the risk to water quality is low and the score has been amended to reflect this.

Human health and quality of life. During the operational phase of the site it will be possible to open up permissive paths and the potential to improve the Shelford village flood defences together with the creation of the water meadows. The operational score has, therefore, been amended.

5 Development Management Policies

- 5.1 There is a tension between the policy in respect of the effect on Best and Most Versatile Land (BMVL) and the biodiversity led restoration proposals which underpin the Plan. As the Plan is currently worded in respect of BMVL it will be necessary to landfill all voids created by the extraction of mineral unless the sites are above the water table. The plan makes no mention of landfilling and whether sufficient suitable materials will be available either generically in respect of policies as a whole or in the site specific requirements for restoration. In this respect the plan is not positively prepared nor effective.
- BAL objects to the wording of policy DM5 the first part of which would prevent any mineral development coming forward. It need to include the words "....will not cause unacceptable harm to the character...." rather than ".......will not adversely impact on the character" Without this amendment the plan is unsound as it is not effective.