



Draft Revised National and Regional Guidelines for Aggregates Provision In England: 2005–2020

Consultation



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Summary

1. The purpose of this public consultation is to seek views and comments on draft revised National and Regional Guidelines for Aggregates Provision in England for the period 2005–2020. A technical note giving more detail of the methodology for calculation of the guidelines have been published on the Communities and Local Government website: www.communities.gov.uk/publications/planningandbuilding/forecastingaggregatesdemand
2. The publication of the *National and Regional Guidelines for Aggregates Provision 2001–2016* in June 2003 was accompanied by a commitment on the part of the Department for Communities and Local Government to monitor annually the guidelines and keep them under review in consultation with the National Co-ordinating Group (NCG) of the Regional Aggregates Working Parties (RAWPs) and the Regional Planning Bodies. This commitment is reinforced as a matter of policy in Annex 1 to *Minerals Policy Statement 1: Planning and Minerals*.
3. The 2007 monitoring exercise indicates a modest decline in the forecast national demand to 2016 for total aggregates. However, the national figure disguises a significant forecast decline in aggregates demand in the North East and South East. Conversely, demand for aggregates in London is forecast to increase.
4. The deviation from the 2003 guidelines of the current demand forecasts for the North East, South East and London is sufficient to indicate that a revision of the guidelines is required. This also provides an opportunity to roll forward the period of the guidelines to 2005–2020.
5. **The consultation period runs or 12 weeks from 3 April 2008 to 27 June 2008.** Provided that the consultation does not suggest the need for a major change of approach, it is hoped that a revised, final set of guidelines will be published by the end of September 2008.

Main issues on which views and comments are sought

- *Do the main assumptions and key guideline figures need to be amended? If so, how and why?*
- *Do you agree that Regional Planning Bodies (RPBs) and, after sub-regional apportionment by the RPBs, Mineral Planning Authorities (MPAs), should incorporate the revised guidelines in their development plans at the earliest opportunity?*

How to respond

6. Your response must be received by 27 June 2008 and may be sent by e-mail, post or fax to:

Andrew Lipiński
Planning: Resources and Environment Policy Division
Department for Communities and Local Government
Zone 1/H4
Eland House
Bressenden Place
London SW1E 5DU

Fax number: 020 7944 5824

E-mail responses should be sent to andrew.lipinski@communities.gsi.gov.uk

7. It would be helpful if you could make clear in your response whether you represent an organisation or group, and in what capacity you are responding.

What will happen to the responses

8. Communities and Local Government will consider and take account of the responses received to this consultation before publishing the final set of guidelines.
9. Within three months of the close of the consultation period we will analyse the responses to the consultation and produce a summary of them. This summary will be published on the Communities and Local Government web site.

Publication of responses – confidentiality and data protection

10. Information provided in response to this consultation, including personal information, may be published, or disclosed in accordance with the access to information regimes. These are primarily the Freedom of Information Act 2000 (FOIA), the Data Protection Act 1998 (DPA) and the Environmental Information Regulations 2004.
11. If you want any of the information that you provide to be treated as confidential you should be aware that under the FOIA, there is a statutory Code of Practice with which public authorities must comply, and which deals, amongst other things, with obligations of confidence. In view of this it would be helpful if you could explain to us why you regard the information you have provided as confidential.

12. If we receive a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on the Department.
13. The Department will process your personal data in accordance with the DPA and in the majority of circumstances, this will mean that your personal data will not be disclosed to third parties.

The consultation criteria

14. The UK Government has adopted a code of practice on consultations – see Annex B for the criteria that apply under this code, and advice about who you should contact if you have any comments or complaints about the consultation process.

Additional copies

15. You may make copies of this document without seeking permission. If required, printed copies of the consultation paper can be obtained from the contact details above.
16. An electronic version can be found at the Consultation Section of the Department's website at:

www.communities.gov.uk/planningandbuilding/publications/consultations

and also at:

www.communities.gov.uk/planningandbuilding/planning/planningpolicyguidance/mineralsandwaste/mineralpolicystatements/mineralspolicyguidance/nationalregional/

The Revised Guidelines

- 1 The publication of the *National and Regional Guidelines for Aggregates Provision 2001–2016* in June 2003¹ was accompanied by a commitment on the part of the Department for Communities and Local Government to monitor annually the guidelines and keep them under review in consultation with the National Co-ordinating Group (NCG) of the Regional Aggregates Working Parties (RAWPs) and the Regional Planning Bodies. This commitment is reinforced as a matter of policy in Annex 1 to *Minerals Policy Statement 1: Planning and Minerals*.²
- 2 The guidelines are monitored annually against up-to-date forecasts of aggregates demand. The monitoring mechanism incorporates a function of the recent historical consumption of aggregates by regions. This consumption data is extracted from the four yearly Aggregates Minerals (AM) survey³. Additional surveys which inform the monitoring process are the two yearly Construction, Demolition and Excavation Waste⁴ (and secondary materials⁵) (CDEW) survey and the Annual Minerals Raised Inquiry (AMRI) survey⁶. Each of these surveys was undertaken for 2005, allowing for a comprehensive and robust analysis of the operation of the 2003 guidelines to be undertaken.
- 3 The 2007 monitoring exercise indicates a modest decline between 2005 and 2020 in the forecast national demand for total aggregates. However, the national figure disguises a significant forecast decline in aggregates demand in the North East and South East. Conversely, demand for aggregates in London is forecast to increase.
- 4 The deviation from the 2003 guidelines of the current demand forecasts for the North East, South East and London indicates that a revision of the guidelines is required.
- 5 This note sets out the draft revised National and Regional Guidelines for Aggregates Provision in England for the period 2005–2020 inclusive. When finalised these guidelines will replace those for 2001–2016 published in 2003.

¹ National and Regional Guidelines for Aggregates Provision in England, 2001–2016. ODPM, June 2003.

² Minerals Policy Statement 1: Planning and Minerals. DCLG, November 2006.

³ Collation of the Results of the 2005 Aggregate Minerals Survey for England and Wales. DCLG, May 2007.

⁴ Survey of Arisings and Use of Alternatives to Primary Aggregates in England, 2005: Construction, Demolition and Excavation Waste. DCLG, February 2007.

⁵ Survey of Arisings and Use of Alternatives to Primary Aggregates in England, 2005: Other Materials. DCLG, February 2007

⁶ Annual Minerals Raised Inquiry, published as PA1007. ONS, 2007.

Status of the 2001–2016 National and Regional Guidelines for Aggregates Provision in England

- 6 Until revised guidelines for the period 2005–2020 are adopted formally the 2001–2016 Guidelines for Aggregates Provision in England remain extant and must continue to be used by the relevant authorities in the plan preparation process.

Future demand for aggregates

- 7 The revised forecasts indicate that over the period of 2001–2016, demand for total aggregates in England will be approximately 3.8bn tonnes. Of this total, 2.8bn is estimated as primary aggregates and 1bn tonnes as alternative aggregates.
- 8 The revised forecasts indicate that over the period of 2005–2020, demand for total aggregates in England will be approximately 3.9bn tonnes. Of this total, 2.9bn is estimated as primary aggregates and 1bn tonnes as alternative aggregates.
- 9 These results at the **national** level differ slightly to the forecast that was used to formulate the June 2003 guidelines, showing a 5.2% decline in demand for total aggregates over the period 2001–2016. However, this is within reasonable bounds of error (less than 10%).

Table 1

Comparison of forecasts for England between 2001–2016 (million tonnes)									
	Total Aggregates			Primary Aggregates			Alternative Aggregates		
	June 2007	June 2003	Change	June 2007	June 2003	Change	June 2007	June 2003	Change
Total	3,791	3,999	–5.2%	2,839	3,081	–7.9%	952	918	3.7%
Average/year	237	250	–5.2%	177	193	–7.9%	60	57	3.7%

Table 2

Comparison of forecasts for England between 2005–2020 (million tonnes)									
	Total Aggregates			Primary Aggregates			Alternative Aggregates		
	June 2007	June 2003	Change	June 2007	June 2003	Change	June 2007	June 2003	Change
Total	3,925	4,117	–4.7%	2,932	3,174	–7.6%	993	944	5.2%
Average/year	245	257	–4.7%	183	198	–7.6%	62	59	5.2%

- 10 The new forecasts indicate a decline in overall demand for primary aggregates (–7.9% over the period 2001–2016) and an increase in overall demand for alternative aggregates (3.7% over the period 2001–2016).
- 11 The forecast decline in overall demand for primary aggregates reflects the results of the 2005 Aggregates Mineral Survey for England and Wales. This shows a 13% decline in primary aggregates consumption in England since the 2001 Survey – from 182m tonnes to 159m tonnes.
- 12 The forecast decline in overall demand for primary aggregates is also reflected in the results of the Annual Mineral Raised Inquiry, which show a reduction in primary aggregate production in 2005 compared to 2001.

Table 3**Crushed Rock Compared to Sand & Gravel (Thousand tonnes)**

	Crushed Rock		Land-won Sand and Gravel		Total	Marine
2001	94,630	(60.3%)	62,177	(39.7%)	156,807	12,395
2005	80,345	(57.6%)	58,926	(42.2%)	139,519	11,912
	–14.8%		–5.2%		–11.0%	–3.9%

Source: AMRI Business Monitor PA1007 ONS

The draft revised guidelines 2005–2020

- 13 Draft revised national guidelines are presented at Table 4. The draft revised total national primary aggregates guideline has been apportioned to crushed rock/land-won sand and gravel/marine sand and gravel according to their proportionate market share reported by AM2005.
- 14 The draft revised guidelines for total aggregates at the national level reflect the modelled fall in demand for aggregates. For land won primary aggregates, crushed rock and sand and gravel, the draft revised Guidelines are lower than the 2003 guidelines, which reflects the decline in land-won aggregates consumption between 2001 and 2005. The assumption of the contribution to aggregates supply made by marine dredged sand and gravel has increased, which is largely a function of the measured (in AM2005) increase in the market share of marine sand and gravel between 2001 and 2005.

Table 4

Million Tonnes					
Draft revised Guidelines 2005–2020			Aggregates Guidelines 2001–2016		
Crushed Rock	Land Won Sand & Gravel	Marine Sand & Gravel	Crushed Rock	Land Won Sand & Gravel	Marine Sand & Gravel
1,492	1,028	259	1,618	1,068	230

15 The draft revised regional guidelines are presented at Table 5.

Table 5: Draft Revised Regional Guidelines 2005–2020 (Million tonnes)					
	Guidelines For Land Won Aggregates Production 2005–2020		Assumptions		
	Land Won Crushed Rock	Land won sand and gravel	Marine sand and gravel	Alternative Materials	Net Imports to England
South East	25	195	121	130	31
London	0	18	72	95	12
East of England	8	236	14	117	7
East Midlands	500	174	0	110	0
West Midlands	82	165	0	100	23
South West	412	85	12	142	5
North West	154	52	15	117	55
Yorks and Humber	212	78	5	133	3
North East	99	24	20	50	0
England	1492	1028	259	993	136

16 The method and assumptions on which the draft revised guidelines 2005–2020 are based are set out in detail in Annex A.

17 A comparison of the draft revised guidelines 2005–2020 with the current guidelines 2001–2016 is shown in Table 6.

Table 6: Comparison of draft revised Guidelines 2005–2020 with the current Guidelines 2001–2016

	Guidelines For Land Won Production		Assumptions			Guidelines For Land Won Production			Assumptions		
	Land Won Crushed Rock	Land won sand and gravel	Marine sand and gravel	Alternative Materials	Net Imports to England	Land Won Crushed Rock	Land Won Sand and gravel	Marine sand and gravel	Alternative Materials	Net Imports to England	
South East	25	195	121	130	31	35	212	120	118	85	
London	0	18	72	95	12	0	19	53	82	6	
East of England	8	236	14	117	7	8	256	32	110	8	
East Midlands	500	174	0	110	0	523	165	0	95	0	
West Midlands	82	165	0	100	23	93	162	0	88	16	
South West	412	85	12	142	5	453	106	9	121	4	
North West	154	52	15	117	55	167	55	4	101	50	
Yorks and Humber	212	78	5	133	3	220	73	3	128	0	
North East	99	24	20	50	0	119	20	9	76	0	
England	1492	1028	259	993	136	1618	1068	230	919	169	

Applying the guidelines at the local level

- 18 On adoption, the draft revised guidelines will replace the guidelines for 2001–2016 published in 2003. RPBs and Mineral Planning Authorities (MPAs) will need to incorporate the revised guidelines in their development plans at the earliest opportunity.

Monitoring, review and revision of demand estimates and guidelines

- 19 The Department will continue to annually:
- monitor forecast aggregates demand; and
 - review the guidelines with the assistance of the RAWPs if monitoring indicates they have diverged from updated forecasts of demand.
- 20 The results of these monitoring and review exercises will be published by the Department.
- 21 The RAWPS will continue to play a key role in monitoring the regional Guidelines, including assessing the changing contributions of each source of supply, which they will published in their annual reports.
- 22 The Secretary of State will, in the future, continue to take account of the advice of NCG and the RAWPs when determining whether, or when:
- the guidelines should be reviewed;
 - or revised guidelines should be issued.

Annex A: The Method and Assumptions used in Preparing the Draft Revised Guidelines 2005–2020

A1. The starting point for preparing the draft revised guidelines is an indicative forecast of demand for all aggregates in England, regardless of origin. This is estimated using a method based on a simple regression equation (or model) which describes the recorded relationship between construction and aggregates consumed in Great Britain over the years 1980 to 2005, inclusive.

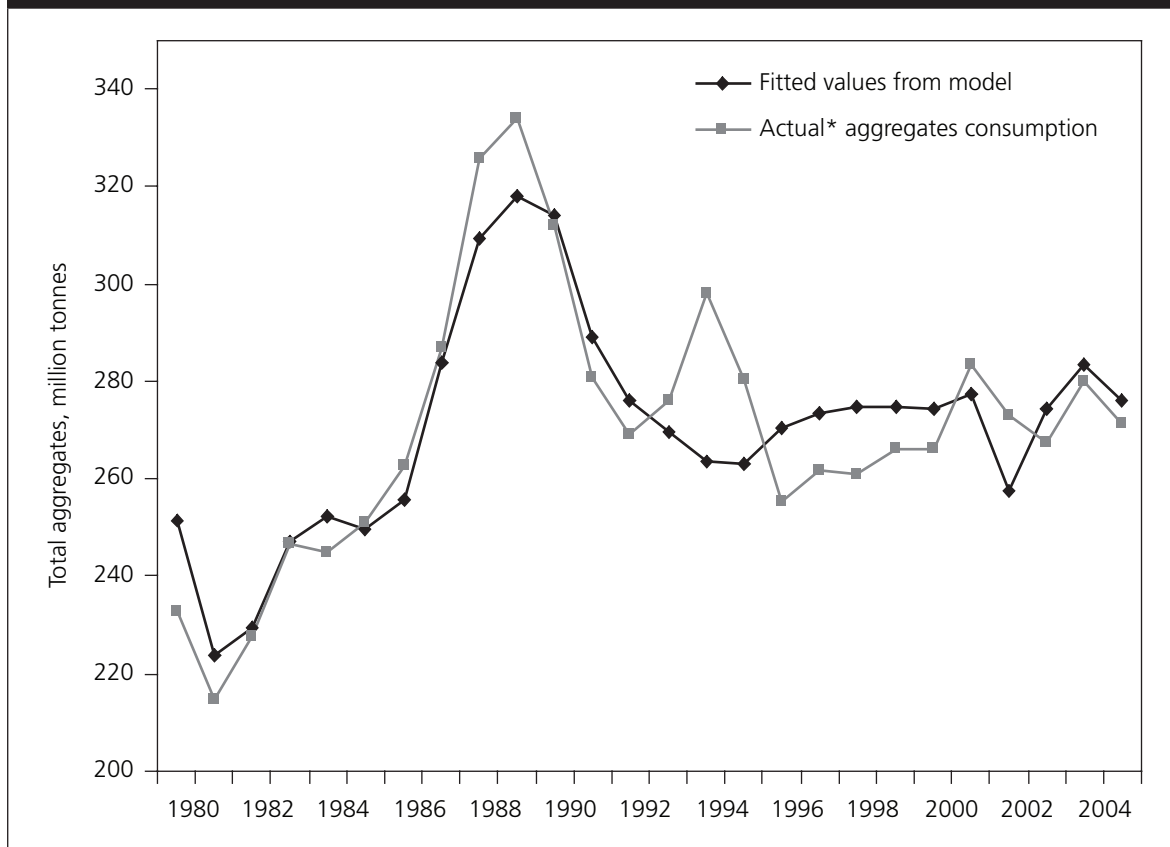
The model

- A2. The approach used to forecast aggregates demand on which the draft revised guidelines are based is broadly similar to the approach used for the June 2003 guidelines. This is in order to maintain consistency when comparing the results and because, to date, the model has produced a good fit with actual data.
- A3. The model used is a simple one that relates aggregates consumption to construction activity by means of a regression equation. Construction activity is broken down into two broad categories based on intensity of use of aggregates. Account is also taken of changes in intensity of use in the construction industry over time.
- A4. Previously the model was based on aggregate use being grown from a single year's data on the basis of predicted GVA growth before being constrained to the results of the regression. In order to improve the reliability of the model it has now been decided, on advice from the Technical Sub-Group to the National Co-ordination Group (NCG) of the Regional Aggregate Working Parties (RAWPs), to grow aggregates from the average of three year's data.
- A5. A small alteration was made in the model to allow for the likely effects of the aggregates levy. When the June 2003 guidelines were prepared, there was no aggregates output data available for 2002, which was the first year that the levy was introduced. Therefore, an external adjustment had to be made to the forecasts to allow for the impact of the aggregates levy.⁷
- A6. In preparing the forecasts for the first annual monitoring report (2004), the impact of the levy was included within the model for the first time by using a dummy variable.

⁷ Technical guidance accompanying the forecasts published in June 2003 explains how the external adjustment was made. The technical guidance can be found at: www.communities.gov.uk/publications/planningandbuilding/forecastingaggregatesdemand

A7. The validity of the regression equation used for the model is explored in more detail in the Department’s First, second and Third Monitoring Reports⁸. However, Figure 1 below demonstrates that the model performs well.

Figure 1: Plot of actual aggregates consumption data (Great Britain) against fitted values by model over the period 1980 to 2005



A8. Cambridge Econometrics (CE) forecasts of changes in construction activity were applied to current construction output data from the Department for Business, Enterprise and Regulatory Reform. The resulting construction forecasts were used to determine the impact on aggregates consumption using regression analysis.

Comparison of September 2007 forecasts with June 2003 forecasts

A9. CE forecasts are produced every 6 months, using an evidence-based approach to account for changing economic circumstances and expectations within the construction industry. We will continue to check the quality of the CE forecasts, by reference to outturn data and other commercial forecasts.

⁸ Available for download from: www.communities.gov.uk/planningandbuilding/planning/planningpolicyguidance/mineralsandwaste/mineralpolicystatements/mineralsplanningguidance/aggregatesprovision/

- A10. The forecasts behind the June 2003 guidelines assumed constant aggregates demand after 2011. Taking the survey data in 2001 as the starting point, this limited forecasts to a period of 10 years into the future because of the unreliability of the long-term construction forecasts. For the update, 2005 survey data provides the starting point for forecasts, so this assumption changes to constant aggregates demand after 2015.
- A11. Previous forecasts assumed that alternative aggregates would meet, but not exceed, the target for England of 60mt per annum by 2011. However, the most recent survey data suggest that this assumption is no longer valid (CDEW 42.07mt, secondaries 8.18mt and asphalt plantings, 7.5mt). Therefore, the latest forecast assumes alternatives will contribute a maximum of 65mt to total aggregates demand from 2015.

Results

- A12. The current forecast predicts a 5.2% decrease in the demand for total aggregates during the 16-year period from 2001 to 2016 compared to the June 2003 guidelines (Tables 1 and 7). The revised forecasts predict demand for total aggregates in England is 3.8bn tonnes over the same period compared to 4.0bn previously estimated.
- A13. The decrease in forecast consumption aggregates can be explained by:
- a. Reduced demand for aggregates in the period 2001–2005. The Aggregate Minerals survey data indicates consumption down from 182mt to 159mt. The impact of this is two-fold:
 - i. The aggregates demand forecast now starts from a lower base than previously. Therefore, even if other things remain equal, forecast demand is going to be lower; and
 - ii. The reduced demand for aggregates has occurred despite continued growth in construction activity (approximately 3% per annum since 2001) – aggregates are being used less intensively. This is reflected in the updated regression coefficients and means that, even if other things remain equal, forecast demand is going to be lower.
 - b. New construction activity growth rates. The 2007 CE estimates indicate annual real average growth in UK construction GVA of 2.2% for the period 2001–2016.

Table 7: Forecast Demand for Total Aggregates in Great Britain⁹ September 2007 (million tonnes)								
	Total Aggregates				England		Great Britain	
	England	Wales	Scotland	Great Britain	Primary	Alternative	Primary	Alternative
2001	235	17	31	283	182	53	222	61
2002	225	17	31	273	170	54	210	63
2003	218	17	32	267	163	56	203	64
2004	226	18	36	280	169	57	214	66
2005	217	18	37	271	159	58	204	67
2006	224	18	36	277	166	57	211	66
2007	228	19	36	283	170	58	215	68
2008	231	19	36	286	172	59	218	68
2009	235	19	37	290	175	60	221	69
2010	239	19	37	295	178	61	225	70
2011	243	19	38	300	182	62	229	71
2012	247	20	38	305	185	62	233	72
2013	251	20	39	309	188	63	236	73
2014	255	20	39	314	191	64	240	74
2015	259	20	40	319	194	65	244	75
2016	259	20	40	319	194	65	244	75
2017	259	20	40	319	194	65	244	75
2018	259	20	40	319	194	65	244	75
2019	259	20	40	319	194	65	244	75
2020	259	20	40	319	194	65	244	75
Total 2005–20	3925	311	610	4845	2932	993	3696	1150
Average 2005–20	245	19	38	303	183	62	231	72

A14. Table 8 directly compares the revised forecasts for England to the June 2003 guidelines for the period 2001–2020.

⁹ Figures for 2001–2005 based on published survey data. 2006–2020 are forecasts for demand (although demand assumed constant after 2015). Primary and alternative constituents may not correspond with the total due to rounding.

Table 8: Comparison of September 2007 (“new”) and June 2003 (“previous”) England forecasts, 2001–2020 (million tonnes)

	Total Aggregates		Primary aggregates		Alternative aggregates	
	New	Previous	New	Previous	New	Previous
2001	235	235	182	182	53	53
2002	225	226	170	173	54	53
2003	218	233	163	179	56	54
2004	226	240	169	185	57	55
2005	217	244	159	189	58	55
2006	224	241	166	185	57	56
2007	228	243	170	186	58	57
2008	231	247	172	190	59	58
2009	235	253	175	194	60	58
2010	239	258	178	199	61	59
2011	243	263	182	203	62	60
2012	247	263	185	203	62	60
2013	251	263	188	203	63	60
2014	255	263	191	203	64	60
2015	259	263	194	203	65	60
2016	259	263	194	203	65	60
2017	259	263	194	203	65	60
2018	259	263	194	203	65	60
2019	259	263	194	203	65	60
2020	259	263	194	203	65	60
Total 2005–20	3925	4117	2932	3174	993	944
Average 2005–20	245	257	183	198	62	59
Total 2001–16	3791	3999	2839	3081	952	918
Average 2001–16	237	250	177	193	60	57

Regional breakdown

A15. The tables in this section present the forecasts for total aggregates and then split these between primary and alternative aggregates. The split between primary and alternative is presumed to remain at the same proportion throughout the period as was observed in 2005, when the last regional data was available.

A16. To produce the regional forecasts, an average of the 2003, 2004 and 2005 survey-based estimates (for primary and alternative aggregates) are grown in line with forecast trends in GVA construction output. These forecasts are then adjusted to be consistent with the national totals. This method of forecasting does not take into account any constraints on supply at a regional level.

A17. Primary aggregates consumption estimates are based on the 2005 Aggregate Minerals Survey for England and Wales (British Geological Survey). This shows a decline in consumption of 13% since 2001 for England. The largest declines regionally are the South East (38%), West Midlands (12%) and North East (16%).

Table 9: Primary Aggregates Consumption AM2001 and AM2005

	(million tonnes)									
	SW	SE	LON	E	EM	WM	NW	YH	NE	ENG
AM2001	25.4	34.1	9.6	19.2	23.2	20.0	22.1	18.4	10.2	182.3
AM2005	23.0	21.2	10.1	18.7	21.9	17.7	20.2	17.7	8.6	159.0
Change	-9%	-38%	5%	-3%	-6%	-12%	-9%	-4%	-16%	-13%

Source: British Geological Survey AM Surveys for 2001 and 2005

A18. Alternative aggregates consumption estimates are based on the CDEW2005 survey. The main component of alternative aggregates is recycled material (graded and un-graded).

Table 10: Alternative Aggregates

		(million tonnes)									
		SW	SE	L	E	EM	WM	NW	YH	NE	ENG
2001	Recycled Aggregate	2.8	4.9	4.3	5.0	4.1	3.7	4.4	3.6	3.6	36.5
	Secondary Aggregates	2.6	0.6	0.2	0.2	0.7	0.6	0.5	3.1	0.4	8.7
	Other	1.3	1.2	0.4	1.0	0.8	0.8	0.9	0.8	0.4	7.5
	Total	6.7	6.6	4.9	6.2	5.5	5.1	5.8	7.5	4.4	52.7
2005	Recycled Aggregate	3.7	6.0	4.3	5.5	5.1	4.4	6.0	5.3	1.7	42.1
	Secondary Aggregates	2.6	0.8	0.1	0.3	1.0	0.6	0.6	1.7	0.4	8.2
	Other	1.3	1.2	0.4	1.0	0.8	0.8	0.9	0.8	0.4	7.5
	Total	7.6	7.9	4.8	6.9	6.8	5.9	7.6	7.8	2.6	57.8
Increase in total, 2001 to 2005		13%	19%	-1%	11%	23%	16%	30%	4%	-42%	10%

Main sources: Survey of Arisings and Use of Construction and Demolition Waste in England and Wales in 2001, and Survey of Arisings and Use of Alternatives to Primary Aggregates in England, 2005¹⁰

A19. It should be noted that there are some limitations in the data available at the regional level, which is why we are required to make some assumptions. With this in mind, it should be recognised that the regional level estimates are subject to more uncertainty than the national level forecasts.

¹⁰ www.communities.gov.uk/publications/planningandbuilding/surveyconstruction2005

Table 11: Demand arising within regions for total aggregates (September 2007)

Total aggregates	North East	North West	Yorkshire & the Humber	East Midlands	West Midlands	East of England	London	South East	South West	England
2001	15	28	26	29	25	25	14	41	32	235
2002	13	27	25	28	24	25	15	36	31	225
2003	12	26	25	27	24	25	15	33	31	218
2004	12	28	26	29	25	26	16	32	32	226
2005	11	28	26	29	24	26	15	29	31	217
2006	12	28	26	29	24	26	15	32	32	224
2007	12	28	26	29	24	26	16	33	33	228
2008	13	29	27	29	25	26	16	33	33	231
2009	13	29	27	30	25	27	16	34	34	235
2010	13	29	27	30	26	27	17	35	35	239
2011	13	30	28	31	26	28	17	35	35	243
2012	13	30	28	31	27	28	18	36	36	247
2013	14	30	28	32	27	29	18	36	36	251
2014	14	31	29	32	28	29	18	37	37	255
2015	14	31	29	33	28	30	18	38	38	259
2016	14	31	29	33	28	30	18	38	38	259
2017	14	31	29	33	28	30	18	38	38	259
2018	14	31	29	33	28	30	18	38	38	259
2019	14	31	29	33	28	30	18	38	38	259
2020	14	31	29	33	28	30	18	38	38	259
Total 2005–20	212	478	447	498	424	453	277	566	569	3925
Average 2005–20	13	30	28	31	26	28	17	35	36	245

Table 12: % change in demand arising within regions for total aggregates (June 2003 to September 2007)

Total aggregates	North East	North West	Yorkshire & the Humber	East Midlands	West Midlands	East of England	London	South East	South West	England
2001	-2%	0%	0%	-1%	0%	2%	3%	-1%	0%	0%
2002	-5%	-4%	1%	-1%	1%	-1%	5%	-6%	1%	-1%
2003	-14%	-10%	0%	-2%	-5%	-2%	8%	-19%	-2%	-6%
2004	-20%	-3%	0%	0%	-2%	0%	11%	-23%	-2%	-6%
2005	-26%	-8%	-5%	-4%	-9%	-5%	6%	-32%	-10%	-11%
2006	-20%	-5%	0%	-1%	-7%	-1%	10%	-24%	-6%	-7%
2007	-17%	-2%	1%	-3%	-6%	-3%	13%	-24%	-3%	-6%
2008	-16%	-1%	-2%	-2%	-5%	-2%	7%	-25%	-5%	-7%
2009	-14%	-3%	0%	-4%	-6%	-4%	9%	-25%	-6%	-7%
2010	-19%	-3%	-2%	-5%	-5%	-6%	12%	-25%	-7%	-7%
2011	-17%	-4%	-1%	-4%	-6%	-4%	15%	-25%	-8%	-8%
2012	-16%	-3%	1%	-2%	-5%	-2%	18%	-24%	-6%	-6%
2013	-15%	-2%	2%	-1%	-3%	0%	19%	-23%	-4%	-5%
2014	-14%	-1%	3%	1%	-2%	2%	21%	-21%	-2%	-3%
2015	-13%	0%	4%	2%	0%	4%	23%	-20%	0%	-1%
2016	-13%	0%	4%	2%	0%	4%	23%	-20%	0%	-1%
2017	-13%	0%	4%	2%	0%	4%	23%	-20%	0%	-1%
2018	-13%	0%	4%	2%	0%	4%	23%	-20%	0%	-1%
2019	-13%	0%	4%	2%	0%	4%	23%	-20%	0%	-1%
2020	-13%	0%	4%	2%	0%	4%	23%	-20%	0%	-1%
Total 2005–20	-16%	-2%	1%	-1%	-3%	0%	17%	-23%	-4%	-5%
Average 2005–20	-16%	-2%	1%	-1%	-3%	0%	17%	-23%	-4%	-5%

A20. The latest forecasts show that there have been some changes in the demand for total aggregates at a regional level, most notably the North East (15% decline, 2001–2016), London (13% Increase) and the South East (21% decline). For the all the other regions, the changes are very small (5% or less).

A21. The regionally significant changes reflect two main factors:

- a. Reductions in aggregates consumption over the period 2001–2005. Future demand for aggregates is now being forecast from a lower base; and
- b. Revised growth rates for construction activity

Calculating the Draft Revised National and Regional Guidelines for Aggregates Provision in England: 2005–2020

A22. The methodology used to calculate the draft revised guidelines is similar to that used to calculate the 2003 guidelines. The steps in calculating the draft revised guidelines are set out below and presented in Table 13:

- a. Demand for all Aggregates by region, column A (Table 13). This column shows the estimate of the demand for all aggregates in each region. It comprises primary aggregate from the demand model, alternatives, again from the demand model, and net imports to England;
- b. Consumption met by alternatives, Column B. These regional estimates are taken from the demand model constrained to 65mt at 2016, and are derived from the 2005 Construction, Demolition and Excavation Waste Survey, the 2005 survey of 'Other Materials' and 1991 data for arisings of asphalt planings¹¹. The constraint is applied in recognition that the recovery of CDEW for use as aggregate is nearing capacity;
- c. Net imports to England, Column C. Some of the demand for aggregates will be met by imports into England, particularly from Wales and Scotland. This data is extracted from tables 4 and 5 of AM2005 (for each region, total imports from outside of England less exports to outside England multiplied by 16 (years));
- d. Consumption to be met by primary aggregate production in England, Column D. For each region, this is the regional forecast of demand for primary aggregates over the next 16 years (2005–2020). It is arrived at by subtracting consumption met by alternatives, and imports from outside England, from the total regional demand for all aggregates (i.e. Column A less Columns B and C);
- e. Primary production as a percentage of consumption, Column E. This column shows the estimates of the proportion of sales of aggregate within a region against consumption of aggregate by the region. The estimates are derived from an analysis of the inter-regional flows of aggregates data within

¹¹ Arup Economics and Planning "Occurrence and Utilisation of Mineral and Construction Wastes" 1991

England reported in Table 4 and 5 of AM2005 and the calculations are presented in Table 14 of this report.

For example in 2005 the South East sold 16.223mt of aggregate within England. 13.387mt was sold for use within the South East, and the remainder to other English regions. However, whilst 13.387mt was sold for use within the region, the South East consumed 19.250mt – the balance being made up of imports from other English regions. Therefore the South East's primary production is 84.28% of its consumption, ie $16.223\text{mt}/19.250\text{mt} \times 100$. This method ensures the inter-regional flows of aggregate between regions are factored into the regional guidelines.

- f. Production of primary aggregates, Column F. This shows for each region the amount of primary aggregates over the guidelines period that is to be met by production from within each region. The estimates are derived by multiplying the total forecast primary aggregate consumption for each region (Column D) by the percentage of that consumption which the region will produce indigenously (Column E);
- g. Draft revised Aggregate Guidelines, 2005 to 2020, Columns G, H and I. Column F estimates for 2005 to 2020 the total amount of primary aggregate that each region will have to produce within the region to meet forecast demand, assuming imports from other regions (the inter-regional flow) remains at the 2005 level. This data needs to be apportioned between crushed rock, land won sand and gravel and marine dredged sand and gravel. The apportionment is undertaken on the basis of the proportional sales in 2005 within each region of crushed rock, land won sand and gravel and marine dredged sand and gravel; and
- h. The draft revised guidelines have been produced using the proportional sales reported by AM2005, not AMRI2005. This is because of uncertainties with AMRI reported data for London and the South East: the 2005 survey reported London and the South East as a single 'old' region, and an adjustment would have to be made to convert this for the 'new' regions. Additionally there is some uncertainty with the accuracy of the marine sand and gravel sales reported for the East of England. For the purposes of deriving regional market shares, we consider the data reported by AM2005 to be more robust for the East of England, London and the South East.

Table 13: Alternatives CONSTRAINED TO 65MT BY 2015 (Million Tonnes)

2005–2020	A	B	C	D	E	F	G	H	I	Aggregate Guidelines 2001–2016				
	Column B+C+D Demand for all aggregates, includes imports and alternatives	Consumption met by alternatives	Net imports to England	Column A-(B+C) Consumption to be met by primary production in England	Primary production as a % of consumption	Column D*E Production of primary aggregates	Crushed rock	Land won sand and gravel	Marine sand and gravel	Crushed rock	Land Won Sand and Gravel	Marine Sand and Gravel	Alternative Materials	Net Imports into England
South East	563	127	31	406	84.28	341.76	25	195	121	35	212	120	118	85
London	281	98	12	170	52.92	90.19	0	18	72	0	19	53	82	6
East of England	453	117	7	329	78.47	258.15	8	236	14	8	256	32	110	8
East Midlands	496	108	0	389	173.33	674.04	500	174	0	523	165	0	95	0
West Midlands	424	101	23	301	82.03	246.64	82	165	0	93	162	0	88	16
South West	572	145	5	423	120.50	509.75	412	85	12	453	106	9	121	4
North West	475	114	55	306	72.26	220.93	154	52	15	167	55	4	101	50
Yorks and Humber	448	134	3	311	94.83	295.02	212	78	5	220	73	3	128	0
North East	214	52	0	162	88.12	142.52	99	24	20	119	20	9	76	0
England	3926	994	136	2796		2779	1492	1028	259	1618	1068	230	919	169

NB An error in AMRI reporting for East of England Marine has become apparent. This is corrected in these draft revised guidelines through use of Crown Estate data for this product in this region.

A Table 9 of Monitoring Report, or column B+C+D

B Table 11 of Monitoring Report

C Calculated from tables 4 and 5, AM2005: (Total imports from outside England less exports to outside England) x 16.

D Table 10 of the Monitoring Report - should match A - (B+C)

E Regional sales as a % of regional consumption, not including imports/ exports to/ from England or Unknown Destination data. Does include marine.

F Estimates of each regions production of primary aggregates production, derived from the percentage of its total consumption that was met by its internal production (DXE)

G The National Guideline for crushed rock is derived from the market share of crushed rock against land won and marine sand and gravel, calculated from sales given in AM2005,

Table 2a (calculation below) - i.e. in 2005 crushed rock comprised 54% of total ag

H See G

I See G

Calculation of land won sand and gravel, marine dredged sand and gravel and crushed rock national and regional market shares.											
Region	Land-won sand and gravel	regional % of national share	% of regional share	Marine sand and gravel	regional % of national share	% of regional share	Crushed rock	regional % of national share	% of regional share	Total primary aggregate	regional % of national share
South East	9,573	16.8708	57.1079	5,952	43.4136	35.5068	1,238	1.4820	7.3853	16,763	10.8859
London	1,038	1.8293	20.4613	4,035	29.4311	79.5387	0	0.0000	0.0000	5,073	3.2944
East of England	13,720	24.1792	91.5155	786	5.7330	5.2428	486	0.5818	3.2417	14,992	9.7358
East Midlands	10,014	17.6480	25.8046	0	0.0000	0.0000	28,793	34.4682	74.1954	38,807	25.2013
West Midlands	9,105	16.0460	66.8453	0	0.0000	0.0000	4,516	5.4061	33.1547	13,621	8.8455
North West	2,932	5.1672	23.6185	838	6.1123	6.7504	8,644	10.3478	69.6311	12,414	8.0617
South West	4,603	8.1120	16.7370	661	4.8213	2.4035	22,238	26.6212	80.8596	27,502	17.8598
Yorks and Humber	4,398	7.7507	26.3986	298	2.1736	1.7887	11,964	14.3221	71.8127	16,660	10.8190
North East	1,360	2.3968	16.6728	1,140	8.3151	13.9757	5,657	6.7720	69.3515	8,157	5.2972
England	56,743	100.00		13,710	100.00		83,535	100.00		153,988	100.00
% Market Share	36.8490			8.9033			54.2477			153,989	100.00

Data from AM2005, Table 2a, page 34

Table 14: AM2005 INTER-REGIONAL FLOW MATRIX

2007 Review of the Aggregate Guidelines		Sales within the producing region and exports to other English regions											D			F	Thousand Tonnes			
		SW	SE	L	E	EM	WM	NW	YH	NE	Total sales by region, including exports to other English regions			S Wales	N Wales	Other exports	Unknown	Total sales by region, including exports to other English regions, Wales and unknown destinations		
Consumption in/from																				
SW	20,698	4,016	1,526	489	26	407	0	0	0	0	0	0	0	27,162	156	2	0	177	27,497	
SE	962	13,387	1,540	234	42	48	9	1	0	0	0	0	0	16,223	3	0	0	953	17,179	
L	0	381	4,544	147	0	0	0	0	0	0	0	0	0	5,072	0	0	0	0	5,072	
E	1	312	290	12,788	925	36	3	0	0	0	0	0	0	14,355	0	1	0	760*	15,116	
EM	18	1,087	1,677	4,535	20,142	3,780	4,519	2,810	4	4	4	4	4	38,572	2	2	0	352	38,928	
WM	159	61	0	67	749	11,913	348	27	0	0	0	0	0	13,324	97	69	0	127	13,617	
NW	702	2	0	0	39	44	10,526	586	133	133	133	133	133	12,032	0	54	0	559	12,645	
YH	0	3	0	33	327	12	1,225	14,018	995	995	995	995	995	16,613	0	37	0	7	16,657	
NE	1	1	7	0	3	3	22	77	7,440	7,440	7,440	7,440	7,440	7,554	1	0	37	895	8,487	
Total consumption by region, including imports from other English regions	22,541	19,250	9,584	18,293	22,253	16,243	16,652	17,519	8,572	8,572	8,572	8,572	8,572	150,907						
S Wales	416	140	127	64	23	1,533	111	3	3	3	3	3	3							
N Wales	0	168	79	55	0	50	3,407	0	0	0	0	0	0							
Other	43	1,618	565	319	0	0	0	228	0	0	0	0	0							
Total consumption by region, including imports from other English regions, Wales and Marine	23,000	21,176	10,355	18,731	22,276	17,826	20,170	17,750	8,575	8,575	8,575	8,575	8,575	155,198						
																				159,859

continued

Table 14: AM2005 INTER-REGIONAL FLOW MATRIX

Net Imports to England ((For each region Row A+B+C)-(Column D+E+F))X16	4,816	30,768	12,336	6,992	304	22,672	55,424	3,104	-560
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Regional sales and consumption data from AM2005, tables 4 and 5.

Primary Production as a % of Consumption

South West	120.50
South East	84.28
London	52.92
East of England	78.47
East Midlands	173.33
West Midlands	82.03
North West	72.26
Yorks & Humber	94.83
North East	88.12

No information was received for marine sand and gravel sales from Thurrock MPA and hence no regional data is available. Crown Estate landings in 2005 were 631,893t.

Annex B: Consultation Code of Practice

The Government has adopted a code of practice on consultations. The criteria below apply to all UK national public consultations on the basis of a document in electronic or printed form. They will often be relevant to other sorts of consultation.

Though they have no legal force, and cannot prevail over statutory or other mandatory external requirements (e.g. under European Community Law), they should otherwise generally be regarded as binding on UK departments and their agencies, unless Ministers conclude that exceptional circumstances require a departure.

The consultation criteria

- 1. Consult widely throughout the process, allowing a minimum of 12 weeks for written consultation at least once during the development of the policy.***
- 2. Be clear about what your proposals are, who may be affected, what questions are being asked and the timescale for responses.***
- 3. Ensure that your consultation is clear, concise and widely accessible.***
- 4. Give feedback regarding the responses received and how the consultation process influenced the policy.***
- 5. Monitor your department's effectiveness at consultation, including through the use of a designated consultation co-ordinator.***
- 6. Ensure your consultation follows better regulation best practice, including carrying out a Regulatory Impact Assessment if appropriate.***

The full consultation code may be viewed at:
www.cabinet-office.gov.uk/regulation/Consultation/Introduction.htm

Are you satisfied that this consultation has followed these criteria? If not, or you have any other observations about ways of improving the consultation process please contact:

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