
Report to Essex County Council

by B J Sims BSc CEng MICE MRTPI

an Inspector appointed by the Secretary of State for Communities and Local Government

Date 23 June 2014

PLANNING AND COMPULSORY PURCHASE ACT 2004 (AS AMENDED)

SECTION 20

**REPORT ON THE EXAMINATION OF THE
ESSEX COUNTY COUNCIL
REPLACEMENT MINERALS LOCAL PLAN - JANUARY 2013**

Document submitted for examination on 12 July 2013

Examination hearings held between 5 and 14 November 2013

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Abbreviations

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| <i>[xxx]</i> | <i>Examination Library Document Reference xxx</i> |
| BMVAL | best and most versatile agricultural land |
| DTC | Duty to Co-operate |
| EA | Environment Agency |
| EIA | Environmental Impact Assessment |
| EBAP | Essex Biodiversity Action Plan |
| ECC | Essex County Council |
| EEAWP | East of England Aggregates Working Party |
| EEFM | East of England Forecasting Model |
| EEP | East of England Plan |
| ha | hectare(s) |
| km | kilometre(s) |
| LAA | Local Aggregate Assessment |
| MASS | Managed Aggregate Supply System <i>[NP-04]</i> |
| MCA | Mineral Consultation Area |
| MM | Main Modification |
| MMO | Marine Management Organisation |
| MPA | Mineral Planning Authority |
| MSA | Mineral Safeguarding Area |
| mt | million tonnes |
| mtpa | million tonnes per annum |
| NPPF | National Planning Policy Framework <i>[NP-01]</i> |
| para | paragraph |
| PHM | pre-hearing meeting |
| PPG | Planning Practice Guidance |
| PS | position statement |
| RAG | Red-Amber-Green |
| Reg | Reg |
| Plan | Essex County Council Replacement Minerals Local Plan 2012 |
| Regulations | The Town and Country Planning (Local Planning)(England) Regulations 2012 |
| RMLP | Replacement Minerals Local Plan |
| SA | Sustainability Appraisal |
| SCI | Statement of Community Involvement |
| SEA | Strategic Environmental Assessment |
| SFRA | Strategic Flood Risk Assessment |
| 2004 Act | Planning and Compulsory Purchase Act 2004 as amended by the Localism Act 2011 |

Summary

The full text of the Report should be consulted for an explanation of the conclusions and recommendations summarised here

This Report concludes that the Essex County Council Replacement Minerals Local Plan January 2013 provides an appropriate basis for the planning of mineral development in the County up to the year 2029, providing a number of modifications are made to the Plan. Essex County Council has specifically requested that I recommend any modifications necessary to enable it to adopt the Plan.

All of the modifications recommended were proposed by the Council in response to initial conclusions by the Inspector following the Hearings and were then subject to further public consultation. Where necessary the detailed wording has been amended in light of the representations received.

The modifications are summarised as follows:

- Re-allocate two Preferred Sites at Bradwell Quarry representing just over 22 per cent of the total sand and gravel requirement as Reserve Sites, only to be worked if the sand and gravel landbank falls below 7 years with respect to the total requirement. This is in order to reduce the potential yield from Preferred Sites in line with past sales as envisaged by the National Planning Policy Framework but to provide flexibly for the possibility of economic recovery based on local forecasts put forward by the Council.
- Include a commitment to continue to monitor the potential for increasing the proportion of marine-won sand and gravel contributing to the future overall County requirement; and
- Include a commitment to continue to monitor the need and potential for a separate landbank for building sand in a future review of the Plan.

Introduction

1. This Report contains my assessment of the Essex County Council Replacement Minerals Local Plan January 2013 (RMLP – the Plan) in terms of Section 20(5) of the Planning and Compulsory Purchase Act 2004, as amended by the Localism Act 2011 (the 2004 Act). It considers first whether the preparation of the Plan has complied with the Duty to Co-operate (DTC) under Section 33A of the Act (as amended), in recognition that there is no scope to remedy any failure in this regard. The Report goes on to consider whether the Plan is compliant with all legal requirements and whether it is sound. The National Planning Policy Framework (NPPF) [NP-01] at paragraph 182 makes clear that, to be sound, the Plan should be positively prepared, justified, effective and consistent with national policy.
2. The starting point for the Examination is the assumption that Essex County Council (ECC) as Mineral Planning Authority (MPA) has submitted what it considers to be a sound plan. The basis for the Examination is the submitted draft RMLP, which is the document published for consultation in July 2013. Therefore, whilst extensive written and oral representations have been made concerning both the Preferred Sites allocated by the Plan and alternatives to them ('omission sites'), these are not considered in detail within this Report, save where such consideration relates directly to the essential soundness of the Plan.
3. This Report deals primarily with the Main Modifications that are needed to make the Plan sound and legally compliant and they are identified in the Report in bold script (**MM**). In accordance with section 20(7C) of the 2004 Act, ECC has requested that I recommend any modifications necessary to rectify matters that make the Plan unsound or not legally compliant and thus incapable of being adopted. These Main Modifications are set out in the Appendix to this Report.
4. The MMs that are necessary for soundness all arise from matters that were discussed at the Examination Hearings. Following these discussions, I reached provisional conclusions that certain MMs are necessary and ECC prepared a Schedule of Proposed Main Modifications together with an Addendum to the Site Assessment Report [CED-20 and SD-10 Addendum] and carried out a Sustainability Appraisal (SA) of the MMs [CED-06 Addendum]. These have been subject to public consultation for a period of six weeks. The correspondence between the Inspector and ECC leading to the publication of the MMs was also made public [IED-08-09]. This is established practice and, despite concern expressed by one Representor during the MM consultation, does not affect the ability of the Inspector to examine impartially whether the proposed MMs make the RMLP sound. [RED-10, RED-12-13, IED-10, IED-12-13]
5. The MM consultation responses are summarised in a report by ECC [CED-23] together with a covering note [CED-24]. These documents raise no new issues and the covering note is treated as the conventional final reply by ECC. Both are taken into account in this Report, together with the responses themselves, where these properly relate to the MMs. I have made some amendments to the detailed wording of the MMs. These amendments do not significantly alter the content of the MMs as published for consultation, nor undermine the

participatory processes and SA that has been undertaken. I have highlighted these amendments in the Report.

6. For the avoidance of doubt, it is noted that ECC proposes a number of Additional Modifications, or minor changes to the Plan. These do not affect its soundness but comprise corrections, updates and changes consequential upon the MMs, in the interests of clarity and internal consistency. These Additional Changes are entirely a matter for ECC and no further recommendation is made upon them in this Report.
7. This Report takes into account all supporting documentation submitted with the Plan together with all representations upon it duly made during the pre-submission consultation. In addition, account is taken of eight Further Information documents [FI-01-08] also submitted by ECC in response to the representations. These documents are not part of the evidence base supporting the submitted Plan and were not requested by the Inspector. However, they raise no fresh issues and were useful to the Examination in summarising the ECC position on certain topics. The FI documents were published on the ECC website and responses from Representors were allowed where justified. In practice, the response from Representors was limited. [RED-02] This Report also takes account of a number of further documents submitted by Representors and ECC by agreement during the Examination. [CED-01-16; RED-01; RED-03-08] All these documents were also published on the ECC website.
8. Since the start of the Examination, Planning Practice Guidance (PPG) has been published by the Government, including PPG on minerals, air quality and climate change. This guidance was in the public domain in a provisional form throughout the Examination and reference was made to it during the Hearings, in particular connection with Planning for Aggregate Minerals. There is nothing in the published version of the PPG which affects the issues arising in connection with the soundness of the RMLP as submitted, or as proposed to be changed by the published MMs. The PPG incorporates former guidance on the Managed Aggregate Supply System (MASS)[NP-04]. Accordingly, notwithstanding submissions that there should be further public consultation regarding the effect of the PPG on the soundness of the Plan, no such further consultation is necessary. [RED-11, CED-25, IED-11]

Assessment of Compliance with the Duty to Co-operate

9. Section 20(5)(c) of the 2004 Act (as amended) requires consideration of whether ECC has complied with any duty imposed on it by Section 33A of the 2004 Act in relation to the preparation of the Plan. In order to maximise the effectiveness of Plan preparation, Section 33A requires constructive, active and on-going engagement with local authorities and other prescribed bodies with respect to strategic matters affecting more than one planning area. Those bodies are prescribed by Regulation 4 of the Town and Country Planning (Local Planning)(England) Regulations 2012 (The Regulations - Regs) and include, among others, the Marine Management Organisation (MMO). Relevant strategic issues, including the provision of minerals, are set down in the NPPF at paragraphs 156 and 178.
10. Although the DTC only came into force in November 2011 when the preparation of the RMLP was well under way, it is necessary for ECC to demonstrate that the

Plan on submission is compliant with the DTC. This requires evidence that ECC sought a level of co-operation with prescribed bodies beyond mere consultation, leading to the outcome that strategic cross-boundary issues are addressed in the Plan.

11. ECC submitted evidence in connection with the DTC by way of its Statement of Consultation under Reg 22(1)(c) [CD-08] and a further Statement of Compliance with the DTC [FI-01]. This first refers to the other two MPAs within Greater Essex. The Borough of Southend-on-Sea is not required to contribute to the Greater Essex sub-regional aggregate apportionment due to a lack of reserves. Thurrock Council conducted an early review of its minerals and waste strategies in the context of its then emerging Unitary Development Plan, taking into account its relatively small share of the Greater Essex apportionment. This RMLP is therefore based on that apportionment, properly disregarding the Thurrock contribution. The amount and appropriateness of the sub-regional apportionment and the overall aggregate requirement are discussed under Issue 1 below.
12. There is no question that ECC consulted with all the prescribed bodies in accordance with Reg 4 as well as with its own Statement of Community Involvement First Review December 2012 (SCI) [SD-03]. Nor is there any question that, generally, the outcomes of these consultations were based on topics identified in earlier stages of public engagement and taken into account in the submitted version of the Plan.
13. For example, concern by the Environment Agency (EA) over water quality, arising from the Water Framework Directive, are addressed in Policy DM1. Similarly, questions raised by English Heritage on the impact of mineral extraction on heritage assets are included in the development criteria of Policy DM1 as well as the schedules of specific issues to be addressed in developing individual Preferred Sites in Appendix 5 to the Plan. Natural England is satisfied on the basis of the SA that none of the Preferred Sites is likely to have a significant effect on designated nature conservation sites or landscapes. The Highways Agency (HA) has been involved in previous consultation during the evolution of the Plan and has confirmed that it will continue working closely with ECC to avoid detriment to the strategic highway network.
14. Furthermore, adjoining MPAs outside Greater Essex in Hertfordshire, Suffolk, Cambridgeshire and Peterborough have been actively involved with ECC in the East of England Aggregates Working Party (EEAWP) and supported the ECC draft Local Aggregate Assessment (LAA) of October 2012 [SD-07]. These neighbouring MPAs consider the Essex draft RMLP to be compatible with their own. The Councils of the London Boroughs of Havering and Redbridge, Thurrock and Southend-on-Sea Councils and Kent County Council all indicate satisfaction with the approach of ECC to the DTC. There is also broad agreement among other MPAs that the identification by ECC of a single landbank for sand and gravel and its site selection process are reasonable. Liaison has taken place with other MPAs from where minerals are exported to Essex, as encompassed in the LAA. The level of agreement between ECC and various organisations and authorities is recorded by way of Statements of Common Ground [CED-14].

15. In certain particular respects however, some Representors question the compliance of ECC and the Plan with the DTC.
16. Whilst all the 12 District, Borough and City Councils of Essex were consulted throughout the preparation of the Plan, there is further objection that the selection process adopted by ECC to identify Preferred Sites was modified during the preparation of the publication draft of the Plan without due consultation. The latter concern is also expressed by a number of individual and other corporate Representors.
17. Subsequently there was also objection on grounds that the submission draft Plan was based on a draft LAA of October 2012 [SD-07] but that the LAA was updated in June 2013, after the pre-submission consultation and without further public engagement. The ECC Topic Paper: Review of Planned Supply of Aggregate Provision in Essex, also of June 2013 [FI-05] relies upon this later version of the LAA which is both appended to the Topic Paper and separately listed in its own right [CED-05].
18. The foregoing are matters of consultation and objection regarding the preparation and provisions of the Plan, rather than a failure on the part of ECC in the DTC, and they are considered as such in the Assessments of Legal Compliance and Soundness below.
19. A further prominent concern with respect to the DTC relates to the level and outcome of co-operation with the MMO. The Plan at paragraphs 1.23 and 2.31-32 briefly states that marine dredging of aggregates is administered under separate legislation and notes that approximately 10% of the sand and gravel consumed in Essex is sourced from the marine environment. In accepting the EEAWP sub-regional apportionment for Essex, the LAA assumes that the same level of contribution will continue, based on historic performance. Representors argue that ECC should actively have sought the co-operation of the MMO to increase the proportion of marine-won aggregates used in Essex, via its safeguarded wharfs, in order to reduce the land-won requirement and so mitigate the environmental impact of mineral working. There is apparent scope for such an increase in the MMO Draft East Inshore and East Offshore marine Plans [RED-03].
20. However, correspondence between ECC and the MMO [CED-13] demonstrates that, although there are licensed marine aggregate extraction sites close to the Essex coast, there is no guarantee that these will be worked. The reasons given for this are high operational costs and environmental and regulatory constraints. This correspondence also indicates that there is no guarantee that the output of these marine sites would be directed to the Essex market or even landed in the UK at all. This information is summarised in the LAA of June 2013 [CED-05 para 8.7]. It is thus evident that it would be impractical to quantify a potential increase in the proportion of marine aggregate use in Essex within the timescale of the first review of the Plan.
21. It is fair to say that compliance with the DTC would have been better demonstrated if ECC had established, and consulted upon, a clear schedule of cross-boundary strategic issues on which co-operation would be sought, with aims and potential outcomes in mind. Such an approach is to be commended before the next review of the Plan, scheduled by Policy IMR1 within five years of

adoption. In particular, ECC should initiate further consideration of whether an increase in the proportion of marine-won aggregate use in Essex could be reliably quantified. This commitment is suitably introduced by **MM1** to para 2.31 with minor adjustment to the wording to make it clear and unconditional that any potential marine contribution will be monitored. Meanwhile though, there is no evident shortcoming of the ECC approach amounting to a failure to comply with the DTC, which is thus properly regarded as being met with respect to the Essex RMLP January 2013.

Assessment of Compliance with Legal Requirements

22. It is a statutory requirement that all stages of consultation on the Plan throughout its preparation follow the process set down in the SCI. The legal compliance of the Plan is questioned with respect to the SCI in three respects.
23. First, the submitted Plan was supported by a draft LAA dated October 2012 [*SD-07*]. However, the ECC Review of the Planned Supply of Aggregates in Essex 2012-2029 [*FI-05*], responding to representations and submitted with the Plan, was based on an updated version of the LAA dated June 2013 [*CED-05*]. There was no formal public consultation on the later version which appeared initially as a mere appendix to the Topic Paper.
24. Second, the site selection process used by ECC to identify the Preferred Sites for sand and gravel extraction was modified after the Issues and Options stages of consultation and before the pre-submission publication of the Plan, also with no more than limited consultation with stakeholders.
25. Third, representations made during the Issues and Options consultations were not carried forward to the pre-submission consultation, in particular with reference to alternative or omission sites. As a result, such representations were not placed before the Examination.
26. It is unsurprising that the simultaneous submission of two versions of the LAA, as one of the most crucial components of the RMLP evidence base, caused disquiet among both mineral operators and the general public. Modification of the site selection process and several reversals of whether certain sites would be allocated gave rise to confusion and uncertainty. This was compounded by the assumption by some potential Representors that prior representations would be carried forward to the Examination. These matters were the subject of a considerable volume correspondence and discussion during the Examination [*RED-02&02.1-10, CED-07-08, IED-03-04*].
27. These concerns are considered in the light of the 2004 Act, the 2012 Regulations, current national guidance and practice and with respect to natural justice. With respect to the LAA and the site selection methodology adopted by ECC, both introduce certain considerations that would have been unfamiliar to Representors in the earlier stages of Plan preparation and public engagement. Nevertheless, despite understandable frustration to operators concerned for their business and to residents concerned for their living environment, the modifications to the pre-submission Plan, and to the evidence supporting it at Examination, were derived from the prior consultation responses.
28. As for representations made at earlier stages of consultation, under the relevant legislation and regulations, only representations made on the pre-submission

Plan during the prescribed period of public consultation are taken into account. The main submissions that the consultation process had been incomplete and unfair were allied to a complaint that, by dispensing with a pre-hearing meeting (PHM) and position statements (PSs) for each hearing session, Representors were prevented from putting forward their full case. Such submissions do not take into account the established principle that full representations on the soundness of the Plan should be put forward during the pre-submission consultation and there is nothing in law or guidance to require a PHM or the submission of PSs where, as in this case, they are not necessary to the understanding of the procedure or the evidence. Procedure was explained in a written guidance note [IED-01] and the representations were sufficiently identifiable and clear in themselves [CD-11].

29. The proper basis for consideration is whether due consultation took place and whether there was prejudice to any interest. In the circumstances, there is nothing to indicate that the statutory SCI was not followed with respect to the LAA and site selection, whilst the Examination itself provides the proper forum for representations to be heard on the Plan as submitted.
30. Otherwise, the results of the examination of the compliance of the Plan with the relevant legal requirements is summarised in the table below. It is concluded that the RMLP meets them all.

| LEGAL REQUIREMENTS | |
|--|--|
| Local Development Scheme (LDS) | The Replacement Minerals Local Plan is identified within the approved ECC Minerals and Waste LDS Revised December 2012 [SD-01]. This sets out an expected adoption date not before May 2014. The content and timing of the RMLP are compliant with the LDS. |
| Statement of Community Involvement (SCI) and relevant regulations | The SCI First Review was adopted in December 2012 [SD-03] and consultation has been compliant with the requirements therein. In addition, consultation on the post-submission proposed Main Modifications was undertaken for a period of six weeks and in a manner equivalent to the requirements of Regulations 20 and 35 for the pre-submission publication of the RMLP. |
| Sustainability Appraisal/Strategic Environmental Assessment (SA/SEA) | SA/SEA has been carried out, including with respect to the proposed Main Modifications, and is adequate. [CD-06, CD-06A-I, CD-06 MM Addendum] |
| Appropriate Assessment (AA) | The Habitats Regulations Assessment November 2012 [SD-08&08A] sets out why the Preferred and Reserve Sites and policies can be screened out as unlikely to lead to significant effects that would require AA of the Plan. However, it is noted that AA of certain detailed site-specific proposals might be required at planning application stage and this is duly noted in the individual site requirements. |
| National Policy | The RMLP complies with national policy. |
| Sustainable Community Strategies (SCSs) | Satisfactory regard has been paid to relevant County and District SCSs [CD-01Appendices2-4]. |
| 2004 Act (as amended) and 2012 Regulations. | The RMLP complies with the Act and the Regulations. |

Assessment of Soundness

Main Issues

31. The RMLP makes full provision for calculated mineral landbanks beyond the minimum requirements of the NPPF and takes into account the further national PPG on the Managed Aggregate Supply System (MASS). The requirement for land-won sand and gravel extraction, in particular, anticipates economic recovery from the recent unprecedented recession and the necessary time for the mineral industry to respond to any consequent upturn in demand for aggregates by the construction industry. In broad terms therefore, the Plan meets the requirement of the NPPF that it should be positively prepared.
32. However, taking account of all the representations, written evidence, the discussions that took place at the Examination Hearings and the responses to the MM consultation, there are five main issues upon which the soundness of the RMLP depends with respect to whether it is justified, effective and consistent with national policy.

Issue 1 – Whether the RMLP makes provision for the extraction of appropriate amounts of land-won sand and gravel having regard to national policy, past sales data, economic considerations and the potential contribution from secondary and marine sources.

Policy

33. The NPPF at paras 142 and 145, read with PPG paras 060-064¹, requires the Plan to support economic growth by providing for a steady and adequate supply of aggregates based on local determination by the MPA of the appropriate level of extraction. This is to be informed by an annual Local Aggregate Assessment (LAA) of demand and supply of aggregates, including from secondary, recycled and marine sources. The Plan requirement should be based on a rolling average of 10 years sales data but must also consider other relevant local information which looks ahead at possible future demand, such as levels of planned construction. Account should also be taken of the general trend of demand indicated by 3 year sales. In this connection, the MPA is expected to participate in, and take advice from, an Aggregate Working Party and take account of National and Sub-National Guidelines on future aggregate provision. The Plan should provide for a minimum 7 year sand and gravel landbank of expected supply from currently permitted reserves. PPG paras 083 and 084² set the basis for calculating the landbank as an indicator of demand. There is no maximum landbank and each application for mineral extraction is considered on merit. ECC duly participates in the EEAWP and the RMLP at paras 3.76-85 properly acknowledges these national policy provisions.

Aggregate Apportionment and Sales Data

34. The EEAWP advised in January 2013 that it supports its constituent MPAs in basing their plan provisions on the apportionments of the regional guideline

¹ former MASS Guidance paras 5 and 6 and footnote 1

² former MASS Guidance paras 10 and 23-26

figures for aggregate provision set down in the former East of England Plan of 2008 (EEP), but resolved not to comment on any further matters in individual LAAs [CED-11]. The annual sub-regional apportionment for the County of Essex for land-won sand and gravel is 4.31 million tonnes per annum (mtpa). This is the figure adopted in the submitted Plan as a basis for calculating the net total requirement from Preferred Sites.

35. However, data for the years 2002-2011 demonstrate that, since 2003, sales have fallen below the annual apportionment figure of 4.31mtpa and that the 10 year sales average is 3.62mtpa. The 3 year average from 2009-2011 is only 2.71mtpa during an acknowledged period of economic recession [FI-05 para 3.7]. None of these figures are substantially questioned in themselves. Dispute arises with regard to whether the lower 10 year sales figure of 3.62mtpa should form the basis of the Plan requirement for land-won sand and gravel, on grounds that other relevant local information is insufficiently robust to justify the proposed uplift, amounting to some 19 per cent.

Secondary and Marine Aggregates

36. There is also substantial concern among Representors that, irrespective of the overall requirement figure, there should be increasing contributions from secondary, recycled and marine-won sand and gravel.
37. Secondary and recycled sources are largely derived from construction waste and do not produce aggregates of high quality. Their market share is likely to remain relatively constant or to reduce due to increasingly resource-efficient building methods. ECC cites discussions with the Waste Resources Action Programme and the Mineral Products Association in confirmation of this. No substantive evidence was put forward in the Examination to support any assumed increase in the contribution to overall aggregate supply from secondary sources above that incorporated within the current LAA. The promotion of numerical targets for waste reduction is a matter for the emerging Waste Local Plan.
38. The contribution to the supply of aggregates by way of marine-dredged sand and gravel is discussed above in connection with the Duty to Co-operate. It is there concluded that MM1 is necessary to commit ECC to reviewing the potential marine contribution but that it would be impractical to quantify a potential increase in the proportion of marine aggregate use in Essex within the timescale of first review of the Plan pursuant to Policy IMR1. It follows that there is no ground currently for assuming an increase in the contribution to overall aggregate supply from marine sources above that detailed in the current annual LAA.

Windfalls

39. Whilst it is suggested that windfall planning applications can mitigate the requirement for allocated sand and gravel sites, historically there has been only a modest contribution from this source, arising from mineral extraction related to relatively small reservoir construction sites. There is no clear evidence that windfalls will play a substantial part in the supply of aggregates during the Plan period. Therefore no allowance for windfalls is appropriate.

Plan Requirement

40. In terms of overall land-won sand and gravel requirement for the 18 year period 2012 to 2029, the Plan provides for the full 4.31mtpa, equivalent to 77.58mt total. After deduction of 36.03mt existing supply as identified in the LAA, the shortfall at the end of 2011 was 41.55mt. Allowing for recent permissions, the required yield from Preferred Sites in the Plan amounts to 40.67 million tonnes. If the sales-based 3.62mtpa were used, the total requirement would reduce to 65.16mt and the shortfall to be met from Preferred Sites to 29.13mt. [CED-05 Table 14] In the calculation of existing supply, it is important to note that this can only practically be based on the estimate of total reserves with current permission for extraction as indicated in PPG para 083. Actual output can vary according to commercial practice and is beyond the control of the MPA.
41. ECC cites a range of economic factors, specific to the County of Essex, in support of the continued use of the former sub-regional apportionment figure, as opposed to the lower annual requirement derived from sales data. ECC reasonably argues that, as over 80 per cent of aggregates consumed in Essex are produced within the County, any economic recovery is likely to be related to increased activity in house building to which the mineral industry would need to respond.
42. Several indicators predict economic recovery within the timeframe of the RMLP [FI-05 paras 4.3-14]. The Oxford Econometrics East of England Forecasting Model (EEFM) shows Gross Value Added (GVA) in construction of the order of 17.9 per cent to 2031 compared with the decade to 2011, alongside an equivalent increase in demand for new dwellings over a comparable period. These figures are born out by Government household projections [RED-05] and by the former EEP, as well as rising forecast dwelling completions in several Districts within Essex, including in response to the requirement of the NPPF since March 2012 to boost housing provision. However, total future completions, following a peak in 2014-15, are hard to estimate due to Local Plans being at differing stages of preparation.
43. The Plan at para 2.19 and the LAA at paras 6.4 and 6.7 [CED-05] also envisage that major infrastructure projects will generate extra demand for aggregates from Essex. These include Crossrail, the Lower Thames Crossing, the Shellhaven Container Port and Bathside Bay business park, Harwich, within the Haven Gateway, where development is strongly promoted.
44. However, there is no quantitative evidence of such extra demand or that it would be required to be met from Essex. Moreover on the contrary, there is a history of reducing demand for aggregates, with the annual apportionment for Essex falling from over 6mtpa in the 1990s to some 4.5mtpa between 2003 and 2009 and finally to the current level favoured by the EEAWP of 4.31mtpa, itself in excess of actual sales for the past decade. Although the economic recession caused a sudden and unprecedented downturn in aggregate sales since 2007, distorting past trends, this underlying downward trend in demand must also be taken into account.
45. It does not appear on this evidence that the local factors cited will necessarily lead to an overall uplift in demand for aggregates from Essex that will set the County apart from other MPA areas. Although it is evident that the national

economy is recovering, the progress of that recovery remains uncertain. These considerations militate against the allocation of Preferred Sites for land-won sand and gravel extraction equivalent to the full 40.67mt, based on the County sub-regional apportionment, and in favour of the lesser amount of 29.13mt, related to past sales. As submitted, the RMLP provides for Preferred Sites yielding the full 40.67mt, to come forward without further consideration of need. In the circumstances, and given the generally adverse environmental impact of mineral workings, this provision is to be regarded, on balance, as excessive and the submitted RMLP as unsound in this respect.

46. At the same time, it is appropriate, and consistent with national policy, that the RMLP remains positively prepared to cater for economic recovery and a boost in home building, should these considerations lead in practice to an increase in aggregate sales within its time frame. The appropriate solution is for the Plan to continue to identify sufficient new or extended sites for sand and gravel extraction in the order of 40.67mt but only to allocate Preferred Sites sufficient to yield an amount of sand and gravel close to the 29.13mt based on sales data. However, to allow for the possibility of economic recovery, and thus maintain an appropriate degree of flexibility, the Plan should identify further sites to bring the supply up to the full sub-regional apportionment, if need arises. This would be indicated by the landbank, based on permitted reserves compared with the full requirement of 4.31mtpa, falling below the requisite 7 years. This change is achieved by allocating Reserve Sites.
47. National mineral planning policy and guidance are silent with respect to this approach. On the evidence however, it is appropriate in this particular case and ECC, although preferring to allocate the Preferred Sites as submitted, considers it to be workable. Nor is the designation of Reserve Sites a measure supported by the EEAWP. However, its approval of the regional apportionment stops short of commenting on other aspects of the LAA in any event and there is no question of reducing the total of the identified supply.
48. There is no conflict in this approach with the principle that there is no maximum landbank and that every application is treated on merit. The landbank level is merely used as an indicator as to when a Reserve Site should, in effect, be treated in the same manner as a Preferred Site by Policies S6 and P1. The alternative would be to reduce the overall requirement and to delete a proportion of the Preferred Sites altogether. This would be contrary to the best interests of mineral planning in the County should demand recover during the Plan period to a level reflecting the regional apportionment.
49. It is accepted that, depending on the economic climate throughout the Plan period, operators may choose not to bring forward the remaining Preferred Sites, such that the Reserve Sites might be approved ahead of them if the level of landbank indicated a need, resulting in an over-centralisation of supply. However, that is an unlikely eventuality, which is beyond the scope of the Plan or the control of ECC, whilst the prime objective to avoid County-wide over provision would still be met.
50. A suggested alternative to Reserve Sites is a production cap on all allocated sites. However, national policy is equally silent in this regard and, moreover, that approach could not fairly be introduced without renewed consultation on site assessment and selection. Furthermore it would be more likely to result in

an unwarranted proliferation of mineral workings, albeit smaller in scale individually. The latter consideration would in turn have commercial implications affecting deliverability.

51. Moreover, any form of production cap would be against national policy, wherein production targets are not to be regarded as ceilings, and a landbank is merely an indicator of supply at any point in time. Clearly the designation of Reserve Sites in the manner proposed has neither the intention nor the effect of capping production over the Plan period as a whole. Nor does it necessitate substantially rewriting the Plan if the Site Assessment proves already to have identified appropriate sites for allocation.
52. The principle of allocating Reserve Sites is suitably introduced by **MMs2-8 and MMs10-22** to Policies S2, S6 and S8 as well as to the Aims of the Plan, Table 1 and the supporting text. An addition to MM14 is necessary to make clear that sand and gravel landbank is calculated with reference to the full 4.31mtpa requirement.

Conclusion on Overall Land-Won Sand and Gravel Provision

53. In conclusion on the first issue, with the foregoing modifications the RMLP makes provision for the extraction of appropriate amounts of land-won sand and gravel. However, the soundness of the site assessment process and the suitability of individual Preferred and Reserve Sites and their respective estimated yields are separate matters for Issue 4 below.

Issue 2 – Whether the overall strategy of the RMLP is appropriate in terms of its spatial priorities for the distribution of mineral development and in relation to other plans providing for Waste Planning and Enforcement.

54. The Spatial Vision, Aims and Objectives of the RMLP are brought together in Policies S1 and S2. Policy S1 reflects the Presumption in Favour of Sustainable Development promulgated by the NPPF whilst Policy S2 duly accords policy status to the Aims and Objectives by setting out 9 Strategic Priorities for mineral development. Priorities 1-5 and 9 cover reducing greenhouse gas emissions, protecting public health and the environment, reduction and recycling of waste and safeguarding mineral resources and transshipment facilities. Priorities 6 and 7 relate to allocating sufficient sites to provide a steady and adequate supply of minerals with the best possible geographical dispersal across the County, supporting key growth areas and infrastructure whilst minimising road transport in terms of mineral miles. Priority 8 highlights progressive phased working and high quality site restoration, beneficial after-use and the protection of the best and most versatile agricultural land (BMVAL).
55. The spatial priorities of Policy S2 are expanded in more detail in, for example, Policies S3 and S4 on climate change and reducing the use of mineral resources, and in Policies S10 and S12 on environmental protection and site restoration, including the preservation of BMVAL and achieving a net gain in biodiversity.
56. With particular reference to sand and gravel resources, there is an excess of resource and a wide choice of location in Essex. It is therefore not necessary for the Plan to reiterate the principle that minerals can only be won where they occur. Nor is there any tension between the two stated principles of dispersal to serve the main Essex towns as growth areas and minimising mineral miles,

especially as the majority of locally land-won aggregate is consumed within the County and only around 14% exported to London, for example.

57. Following public consultation on a range of dispersal options, the Plan adopts a hybrid strategy combining both extensions to existing sites and the allocation of new sites. This was supported by a majority of consultees as well as by the SA.
58. Properly read as a whole, the RMLP addresses an appropriate range of material planning interests and adopts a logical approach to geographical dispersal in connection with the selection, working and restoration of mineral sites. The Plan thus promulgates a sustainable and logical strategy for mineral development in Essex.
59. The provisions of the RMLP potentially overlap with those of the emerging Waste Local Plan. However, there is diminishing availability of waste for use in the restoration of mineral sites. This Plan therefore generally favours low level restoration. Moreover, whilst Site Waste Management Plans have been employed in the past, their future use is evidently uncertain. In the circumstances, the question of the use of landfill and the management of waste in connection with mineral development is best separately addressed in connection with the Waste Local Plan.
60. There is also potential overlap with the ECC Local Enforcement and Site Monitoring Plan [CED-02]. However, whereas appropriate enforcement action against non-compliance with planning conditions might reduce the output of a site subject to such action, the Plan contains sufficient flexibility, including the option for early review under Policy IMR1, to address any shortfall.
61. Concluding on the second issue, the overall strategy of the RMLP is based on appropriate spatial priorities for the distribution of mineral development and avoids conflict with the emerging Waste and adopted Enforcement Plans. The strategy therefore accords with current national planning policy and guidance and is sound in itself. However, it remains to consider, with particular respect to Issue 4 below, whether the Plan implements its objectives in practice.

Issue 3 – Whether the RMLP should provide for a separate landbank for building sand

62. Before turning to the crucial site selection process it is necessary to consider the cases for and against a separate building sand landbank. The Plan at para 3.82 states that it is unnecessary and impractical to maintain separate landbanks for concreting and building sands. The NPPF at para 145 and the PPG at para 085³ support separate landbanks for specific mineral products, including building sand, where justified by a distinct and separate market. Whether a separate landbank is appropriate therefore depends on whether it is feasible to calculate the reserves of sands in Essex suitable for building use.
63. In the Examination, and in this Report, the term 'building sand' is used in preference to 'soft sand' to distinguish sands used in building materials, mainly mortar, from products used as fine aggregate for the manufacture of concrete. This is consistent with the terminology used in national specifications. However,

³ former MASS guidance at para 28

all representations made with reference to 'soft sand' are taken into account, including a call for a further distinction between dry natural and wet-screened building sands.

64. It is noted that, in a minority of cases, separate building sand landbanks are identified in mineral local plans elsewhere. However, this is usually in response to a high reserve of bedrock sands, as opposed to superficial sand and gravel deposits such as occur widely in Essex. The latter give rise to a wide variety of sand products for which the separate end uses in relation to physical characteristics are difficult to identify.
65. Notwithstanding common parlance and assumption, there is no evidence that building sands can only be obtained from particular sources or that any specific sand reserve in Essex can only furnish building or concreting sand end uses. This is borne out by British Standard specifications in terms of building sand being produced from a wide variety of sources based largely on grading by particle size. Moreover, there is nothing in national specifications relating to production methodology, such as dry or wet processing, to imply that such a further distinction is justified in mineral planning. Such commercial practice is, in any event, beyond the control of ECC as MPA. *[FI-06]*
66. However, there are evidently distinct markets for a range of products that emerge from the single sand and gravel landbank including sales in Essex of some 0.45mtpa of building sand, about 0.13mtpa of which has historically been produced at a single quarry. *[RED-02]*
67. There is no evidence that the permitted and allocated sand and gravel reserves in the County cannot continue to produce sufficient quantities of building sand to meet demand, or that such demand is not being fulfilled at present. At the same time, albeit due to commercial confidentiality, ECC has not provided any analysis of annual monitoring returns to show that they can. On current evidence therefore, it is not practically feasible to calculate a separate landbank for building sand in any event and there is no justification for a separate building sand landbank in the RMLP as submitted.
68. However, to be sound, the Plan should contain a commitment to continue to review the situation, as part of annual monitoring, should a shortage of building sand arise which could be addressed by way of a separate landbank in a future review of the Plan. Such a commitment is suitably introduced by **MM9** to para 3.82 and **MM41** to the Monitoring Framework Table 8.

Issue 4 – Whether the process adopted by ECC for the selection of Preferred Sites and Reserve Sites for sand and gravel extraction justifies the allocations made by the RMLP

Requirement

69. It is concluded in connection with Issue 1 above that the yield of sand and gravel from Preferred Sites should be reduced to a figure in the region of 29.13mt but that an additional amount should be available from Reserve Sites, retaining the total required from all identified sites of 40.67mt. However, Reserve Sites are only to come forward if the landbank falls below 7 years, calculated by comparing the total figure of 40.67mt with the amount of currently permitted reserves. It is first necessary to consider whether the

Preferred Sites in the Plan as submitted are acceptable, before assessing whether certain of those, or alternatives, should be allocated as Reserve Sites.

Site Assessment Overview

70. The justification and effectiveness of the site selection process is measured not only by the logic of its approach but by its outcomes, in terms of the nature and planning impacts of the sites identified. For this reason, the Examination Hearings were taken through to completion to include the wide ranging concerns over the effect of certain sites, before any conclusions were drawn.
71. The understandable disquiet following the modification of the site selection process after the preferred options but before the pre-submission public engagements is discussed in the assessment of legal compliance above. The proper question to be addressed here is whether the submitted Plan is robustly supported by the selection process finally adopted and set down in the Site Assessment Report [SD-10].
72. The Site Assessment begins with some 46 identified potential sand and gravel sites. The combined Stages 1 and 2 of the Assessment consider a range of social and environmental factors resulting in a Red, Amber or Green (RAG) classification for each factor and a numerical score for each site as a whole, albeit sites were not selected simply on that basis. The Amber classification is subdivided Amber 1 to Amber 3 in increasing significance. Any Red classification gives rise to rejection at Stage 2. All sites passing Stages 1-2, that is those having only Amber and Green classifications, are regarded as environmentally and socially acceptable in principle. Stages 3 to 5 involve judgements as to which sites best fit the strategy: Stage 3 concerns their proximity to growth areas and the efficient dispersal of the mineral supply; Stage 4 concerns cumulative transport impacts; Stage 5 considers their potential for biodiversity habitat creation and wider community benefits as well as restoration limitations. The final Stage 6 confirms the selection after SA.
73. There is little question that the Site Assessment employs an appropriate range of selection criteria at each stage. However, there is a widespread view among local residents, concerned for their environment, and mineral operators, concerned for their businesses, that the process is flawed in both its approach and its judgements in applying those criteria and in setting the Specific Issues to be Addressed in individual planning applications.
74. In order to determine whether the selection of sites is justified, it is necessary to consider, first, whether the RAG classification at Stages 1-2 is appropriately applied, second, whether the sites chosen after passing Stage 2 have been properly selected with reference to the Stages 3-5 criteria and, third, whether any would nevertheless have unacceptably adverse planning impacts which could not be resolved with reference to the Specific Issues to be Addressed listed against each allocation.

Site Assessment Stages 1-2

General

75. Local residents express concerns about the potential impact of future mineral working over the whole area of the Preferred Sites up to their boundaries, as

drawn on the Site Maps in Appendix 5 to the Plan. However, these maps need to be viewed in conjunction with the Specific Issues to be Addressed listed for each site and in the light of the range of planning controls inherent in the policies of the Plan as whole. The allocations of the Plan establish the pattern of development in relatively broad principle. The details and extent of the actual excavation and storage of overburden and the extraction of mineral are for future consideration in connection with detailed planning applications.

76. The Site Maps indicate the full extent of the mineral interest concerned. Where material planning interests within the site boundary require protection, the extent of extraction can be subject to limitation. At the same time, land within the allocation boundary remains available to provide buffer zones or to create, for example, earth bunds or landscape screening. These can be secured by way of planning conditions imposed on any permission.
77. It is beyond the scope of this Report to anticipate the detailed planning effects of potential future development proposals. At this stage it is necessary for such considerations to remain proportionate to the level of detail the Plan itself provides. The following appraisal is made against this background, addressing the main concerns which are essentially the same for all the most controversial allocations.

Visual and Landscape Impact, Residential Amenity and Health, Heritage Assets

78. Any site presenting a risk of significant adverse impact on an Area of Outstanding Natural Beauty, or other major landscape impact, which could not be mitigated is automatically classified Red and rejected. These results are based on formal landscape impact assessments and, although judgements vary as to the degree of severity, there is no evidence that any site which could cause irreparable harm to the landscape has been selected for further consideration.
79. If more than 200 residential properties, or other sensitive uses such as schools or hospitals, would lie within 250 metres of a site, or more than 10 dwellings would be closer than 100 metres from an extraction area, the site concerned is given a Red score and is rejected. Graded Amber 1-3 scores are attributed where any lesser number of properties lie within those distances. The degrees of potential impact on visual amenity, and on existing tranquillity ratings mapped by the Council for the Protection of Rural England, are similarly graded.
80. Noise, dust and other effects on amenity or related to health are measured largely by simple observation of existing levels and in relation to past environmental health complaints. Notably, only one site is rejected on grounds of existing severe harm to amenity or pollution and it is difficult to predict the likely health and amenity effects of new or extended mineral extraction. However, linked to the foregoing distance criteria and given that such impacts are subject to separate environmental health legislation, the graded Amber to Green Scores assigned to most sites can be taken as an indicator that such factors can be assessed and properly controlled.
81. There are many heritage assets, and in particular listed buildings, within or near to many of the allocated Preferred Sites. The importance of their protection is highlighted by the large number of Amber 3 scores attributed in light of information from English Heritage. However, given the scope to curtail mineral

activity close to listed buildings and to provide them with screening buffers for the duration of the works, it is not evident that any sites likely to cause irreparable harm to heritage assets have passed Stages 1-2 of the Site Assessment.

Biodiversity

82. The overall provisions of the RMLP for biodiversity are considered further under Issue 5 below, including the question of baseline surveys of existing biodiversity interests.
83. Based on a specialist ecological assessment and consideration of the Habitat Regulations Assessment, all 46 sites entering Stages 1-2 of the assessment gain a range of Amber scores with none Green. These are ascribed according to the potential impact on Natura 2000 and national designations as well as sites identified in the Essex Biodiversity Action Plan and known protected and notable species. A score of Amber 3 indicates that only small scale extraction may be acceptable but this does not apply to any of the sites that passed Stages 1-2 overall.
84. At the same time, no Red scores are assigned on the basis that to do so at this stage would anticipate the outcome of further Appropriate Assessments under the Habitats Regulation required in connection with individual planning applications. Whilst the absence of Green scores highlights the potential for ecological harm, the provision for later Appropriate Assessment offers a sufficient further safeguard, such that the appraisal which has been undertaken in connection with this Plan is proportionate with respect to biodiversity.

Best and Most Versatile Agricultural Land

85. Using the most up to date information for each site, Amber scores are attributed according to whether, and to what extent, mineral development would disturb agricultural land of Grades 1 to 3, which is subject to protection by the NPPF. It is broadly accepted that such land can be restored to its original grade and it is for the determination of individual planning applications to include consideration of the appropriate constraints and conditions to ensure this.

Flood Risk and Hydrology

86. Based on information from the Environment Agency and the Strategic Flood Risk Assessment (SFRA) [SD-09], potential flood risk is assessed and no sites are rejected due to unacceptable flood risk or proximity to water protection zones at Stages 1-2. Preferred Sites, in practice, generally have Green and Amber 1-2 scores. It is for detailed flood risk and hydrogeological assessments in connection with future planning applications to determine acceptable flood risk mitigation measures.

Road Transport

87. Sites are assessed by the highway authority in two stages, the first relating to compliance with transport policy and the second to the technical deliverability of access. Considerations include potential traffic generation, need for off-site processing of mineral and the availability of a suitable route to the main road network. The latter is required to be over as short a distance as possible without undue detriment to safety or the efficiency of the local road network.

Thereafter, the impact on the trunk road network is taken into account. Options for rail or water transport are noted for information. Some sites scored Red on access but all those passing Stages 1-2 scored Green, leaving further consideration of transportation for Stages 3-4 and site specific assessment. This aspect of the assessment is proportionate at this stage.

Deliverability

88. ECC is reliant upon information, sometimes commercially confidential, from mineral operators as to the nature, extent and quantity of mineral reserves and the amounts of aggregate deliverable from any sand and gravel site. These figures are conventionally provided in net terms, taking account of any processing losses in the course of production. One operator in particular asserts that an allowance in the order of ten per cent should be made over the calculated plan requirement to account for such losses. However, there is insufficient evidence for such an allowance to be made, having regard to general practice throughout the mineral industry as a whole.
89. There are sometimes conflicting assertions between operators regarding the overall quantities of winnable reserves from certain sites. These are made on grounds of legal and physical constraints, including with respect to overburden ratios or hydro-geological limitations on extraction and restoration. In the circumstances, ECC can do no more than take the returns and estimates of operators as its starting point for the estimation of site yields and deliverability. The importance of continuous monitoring of actual production to inform future Plan review is properly addressed by Policy IMR1. With only two exceptions, the sites assessed at Stages 1-2 are Classified Green with respect to Resource and Timeframe of Delivery and there is no substantial evidence to contradict these judgements.

Conclusion on Site Assessment Stages 1-2

90. The initial combined Stages 1-2 of the Site Assessment apply an appropriate range of criteria such that the RAG classifications and the overall scores are properly ascribed. These are based on judgements which ECC is entitled to make on the available evidence. The safeguard remains that any future planning applications within the Preferred Sites will be subject to further detailed consultation and appraisal, including specific Environmental Impact and Appropriate Assessments as required under the relevant Regulations. Notwithstanding that the RMLP may be sound on the evidence proportionate to its preparation, planning permission could still be refused in the event that planning impacts could not be mitigated acceptably.

Potential Co-location of Ready-mix concrete plants and Waste Recycling facilities

91. The potential for the co-location of associated ready-mix concrete and waste recycling facilities was not considered at Stages 1-2 but is a matter for detailed planning applications.

Site Assessment Stages 3 to 6

General

92. There is concern among Representors that, in the choice between sites which have passed Stages 1-2 of the Site Assessment, no further comparison is made

between them with reference to the degree of their several planning impacts but only with reference to the Stages 3-5 criteria. In principle, that is a valid criticism of the approach of the Assessment, which carries a danger that unjustified selections could be made if the overall Stages 1 and 2 RAG scores varied widely.

93. In practice, however, the scores of all 46 sites assessed are between 25 and 50 whilst those of the 23 sites which passed Stages 1-2 are all 35 or more and those of the Preferred Sites are all 40 or more. Thus, whether as an aim or as a result of the strategy, the Preferred Sites allocated in the Plan are broadly those with the higher scores in any event. In effect therefore, given the foregoing conclusion that the Stages 1-2 scores were appropriately ascribed, the selection between sites judged to be environmentally and socially acceptable can reasonably be based on the Stages 3-5 criteria. The main factors covered are briefly reviewed in the following paragraphs.

Stage 3 - Proximity to Growth Areas, former Western Weighting, Mineral Miles, Local Supply and Demand and distance from sensitive properties

94. At Stage 3 of the Assessment, Preferred Sites are first identified from those passing Stages 1-2 broadly on their proximity to the main towns of the County and to the Haven and Thames Gateways growth areas. This is consistent with the County-wide distribution strategy of the Plan as a whole. One of the main concerns among Representors revolves around the use of an indicative optimal transport distance from source to end use of 20 kilometres. That was introduced at the pre-submission stage in preference to the six-point 'western weighting' formerly applied to the scores of sites in the west of the County at the Preferred Options stage of public engagement. This in itself attracted opposition. However, on fresh examination the 20 kilometre criterion logically applies the spatial strategy and results in a reasonable distribution of sites with respect to growth areas, albeit with a greater concentration in Braintree.
95. Representations are made that this approach ignores the potential for certain sites to serve local markets and reduce 'mineral miles' travelled by road. This applies in particular to certain sites in the east close to Colchester and in the west near Harlow, including existing operations with potential for expansion. However, there is no overriding evidence that mineral products from those or any other source would necessarily be destined for local markets or any other more distant markets within or outside Essex. The mere proximity to a potential local market does not therefore override the broad application of the spatial priority of strategic distribution.
96. At this stage the amount of a site which would lie within 250 metres of a defined settlement boundary was further taken into account.

Stage 4 - Transport Impact, Rail and Water Transport

97. Total HGV traffic is evidently around only 6 per cent of overall traffic flows on the main County road network and it is to be expected that the amount of additional mineral traffic due to the operation of the Preferred Sites could be accommodated within its capacity. More locally, sites are preferred where they enjoy existing access direct to the main road network.

98. Potential benefits of non-road transportation from certain rail and wharf sites are outweighed by local access considerations.

Stage 5 – Restoration and Biodiversity Habitat Creation

99. Finally, the Plan at para 3.197 sets an 'ambitious' target to create a minimum 200 hectares of priority habitat to enhance biodiversity. Any site with potential to contribute as a flagship scheme to this target is favoured.
100. At the same time, whilst some infilling to protect listed buildings is accepted, a wider need for restoration by infilling counts against a site in view of diminishing sources of material for that purpose.

Stage 6 – Sustainability Appraisal

101. The SA concludes that the extraction of sand and gravel from the Preferred Sites will have minimal significant impacts on sustainability objectives, noting that the presence of BMVAL should not prevent extraction. The SA records many benefits, as well as potential for mitigation of adverse effects, including those on health, amenity, water resources, the landscape and the historic environment.

Conclusion on Site Assessment Stages 3 to 6

102. Stages 3 to 5 of the Site Assessment apply a further range of appropriate criteria as a basis of selection between sites found in Stages 1-2 to be environmentally and socially acceptable. The judgements made by ECC are in general compliance with the stated strategy of the Plan and are borne out in the SA at Stage 6 of the Assessment. This concludes overall that the Preferred Sites would be unlikely to cause significant negative impacts save in respect of the temporary removal of soils from BMVAL and that mitigation is possible in each case, including in regard to human health, with some long-term benefits accruing.

Specific Issues to be Addressed

General

103. All of the written and oral representations raising concerns over the effects of all the Preferred and Reserve Sites are taken into account, together with the responses to them by ECC both orally at the hearings and in writing. Those allocations proving to be the most controversial are here briefly considered individually.

Bradwell Quarry, Rivenhall – Sites A3-A7

104. Sites A3 and A4 are contiguous with the existing quarry and processing site, relatively small and uncontroversial.
105. Sites A5 and A6 would further extend the existing extraction area respectively to the south, toward Silver End, and to the south east, whilst the largest Site A7 would reach much further east into open farmland, bounded on its northern edge by the protected Cuthedge Lane.
106. Crucially, before any development could commence, the working, phasing and restoration of any of these sites would be subject to an approved Masterplan

covering them all, in conjunction with recently approved mineral and waste management facilities within the existing site. This is a requirement of each of the tabulated site profiles 9-13 of Appendix 5 to the Plan.

107. In particular, sand and gravel would be processed via the existing plant and mineral traffic would make use of the existing site access to the A120, once improved, with lorry movements restricted to present levels.
108. Although relatively far from any conservation area, the sites themselves contain a rich variety of historic interests. These include public footpaths, listed buildings and vestigial airfield features, whilst the former Polish Camp lies immediately outside the south eastern site boundary.
109. Although public rights of way would have to be diverted during mineral extraction, their links to either side of the sites could be maintained. There is scope for protection of listed buildings and historic features by curtailing excavation and requiring protective bunding or screening for the duration of that section of the works affecting them. The estimated yield of the sites evidently takes such constraints into account.
110. Although temporary bunding would alter the landscape for some time, views of the works would be moderated by distance and by boundary vegetation already planted and maturing. There would be closer views from Cuthedge Lane, though the Lane itself would not be directly affected. The overall effect of the development on the landscape after restoration would be neutral.
111. The sites also contain a rich variety of biodiversity interests, including protected species. At this stage, there are no recorded objections to any of these allocations from Natural England or the Wildlife Trust. However, a full Environmental Impact Assessment (EIA) would be required of any planning proposal to include ecological compensation as well as an appraisal of potential noise and dust pollution to nearby communities, together with measures for their control to protect public health. High quality agricultural soils are required to be preserved on site and replaced as part of site restoration.
112. The Specific Issues to be addressed in connection with each of the Bradwell Quarry Preferred Sites A3 to A7 are sufficient in their scope and terms to provide a proper framework for the control of any future mineral development.

Sunnymead, Alresford - Site A20

113. This allocation would substantially extend eastward the existing operation at Wivenhoe Quarry.
114. There is competing evidence regarding the overburden ratio and the hydro-geological characteristics of the site in relation to its deliverability and the feasibility of the preferred low-level restoration. Whilst the site promoter has indicated a preference for restoration by imported inert filling material, current information is that the water table is low enough to permit working and restoration, mainly at low level. Whilst it is likely that restoration would involve the creation of a water body, the allocation offers an opportunity for biodiversity enhancement as an identified flagship scheme.
115. The indicative haul route is westward via the currently permitted site toward the existing Keelars Lane underpass. It is envisaged that heavy goods vehicle

movements generated by the extension would not exceed current levels from the permitted site. There is no evidence that lorry traffic could not be satisfactorily accommodated on the highway network, subject to a Transport Assessment of any future detailed planning application.

116. There is no reason to doubt that appropriate distance buffers and temporary earthwork bunding could be provided to protect some 27 houses situated less than 100 metres from the excavation area, as well as a Local Wildlife Site at the southern boundary and a public right of way that abuts the extraction area.
117. The Specific Issues to be Addressed in connection with the Sunnymead, Alresford, Preferred Site A20 are sufficient in their scope and terms to provide a proper framework for the control of any future mineral development.

Broadfield Farm, Rayne – Site A9

118. Residents of nearby Rayne and along Dunmow Road are understandably worried about the prospect of a new mineral site to the west of the village with access to the A120 via a new entrance onto the B1256. The development would visibly disrupt the high quality agricultural landscape, including BMVAL, and protection would be required for Local Wildlife Sites in nearby woodlands as well for protected species within the site. There are thought to be archaeological remains beneath the site, also requiring prior investigation. There is local concern that site operations and lorry traffic would cause harm to health and amenity, including at the village school, as well as traffic delay and congestion.
119. However, the site is sufficient in extent for sensitive features to be protected by temporary earth bunding and distance buffers, whilst already maturing boundary vegetation would mitigate visual intrusion. The number of lorry movements would represent only a small percentage of the total traffic already on the routes concerned and there is no evidence of any current road safety or congestion issues that would preclude the level of mineral traffic envisaged.
120. Equally, there is no substantial evidence that noise or air pollution due to the works could not be kept to acceptable levels, including at the nearest dwellings and at the school. Historically, emissions from sand and gravel workings in Essex have rarely given rise to issues not resolved by enforcement action by the environmental health authority and it is noted that dust from such works are generally not of the particle size likely to cause harm to human health.
121. The hydrology of the site would need to be investigated fully, as parts of the land are liable to flood risk and there are groundwater abstraction points in the vicinity. Careful restoration would be required to blend revised low-level contours with the surrounding area. Past consideration of restoration to open water bodies has heightened uncertainty about the practicality of low-level restoration but current information is that, subject to detailed EIA of any actual proposal, including hydro-geological studies, ground water levels would allow low-level restoration of original soil to high quality agriculture over much of the land. Indeed, the site is regarded as having potential for overall biodiversity enhancement as a flagship scheme contributing to the 200 hectare habitat creation target.
122. Overall, there is no substantial evidence that the impacts of mineral extraction could not be mitigated acceptably with reference to established standards. The

Specific Issues to be Addressed in connection with the Broadfield Farm Preferred Site A9 provide an appropriate framework for this to be achieved, including by way of appropriate detailed ecological and hydro-geological studies.

Shellow Cross, Roxwell – Site A40

123. This new allocation between Elm Road to the south and the A1060 to the north lies within relatively open, undulating farmland to the east of Roxwell, inside the Metropolitan Green Belt.
124. There would be a cross-country haul route so that access from Elm Road would be prohibited and all on-site processing would be confined to the northern area with direct access to the A1060. Subject to a Transport Assessment of any detailed applications, it is anticipated that a safe vehicle entrance could be constructed, incorporating an appropriate right-turn lane. In this way, traffic impact would be minimised and kept to an acceptable level.
125. There is much local concern regarding lengths of ancient hedgerows remaining on the site as a vestige of the historic Essex field system, as well as a range of Local Wildlife Sites and protected species currently enjoying relative tranquillity. Several listed buildings and some homes near the site would require appropriate protection of their setting and amenity. The overburden ratio of around 3:1 is relatively high, giving rise to concern that the visual impact of stockpiling would be more severe than indicated in the Stages 1-2 score of Amber 3. The economic viability of winning this particular resource is questioned for the same reason.
126. Whilst the further loss of existing landscape features is a material consideration, the overall visual impact during extraction could be mitigated by progressive, phased working, with the height and location of stockpiling controlled by planning condition. When comparison is made with, for example, Site A25 - Eisenham Quarry which scored Red for landscape impact, that site is regarded as more visible due to its bowl-shape and hillside location. Controls over phasing and stockpiling would also limit the effect on the openness of the Green Belt, where the presumption against inappropriate development does not essentially apply to mineral development in any event.
127. Detailed EIA would be required as a basis for protection of nature conservation interests and listed and other buildings, including by screening to reduce the impact of nearby excavation to an acceptable level for the duration of that phase of the work affecting them. There is no evidence at this stage that this site is exceptionally tranquil or that suitable measures could not be put in place to safeguard wildlife. With particular reference to the property known as Mountneys, the working area would need to be curtailed to the north within the Preferred Site delineated on the Plan to Table 22, in effect reducing the site area as required by Item 12 of the Specific Issues to be addressed.
128. The economics of extracting mineral from areas of relatively thick overburden varies between different parts of Britain and, notwithstanding values commonly encountered in Essex closer to 1:1, the higher value in this case is not so unusual as to render the promotion of the site unrealistic on current information.

129. On balance, the Specific Issues to be Addressed in connection with the Shellow Cross Farm Preferred Site A40 provide an appropriate framework for the control of mineral extraction.

Land at Colemans Farm – Site A46

130. The currently proposed Preferred Site at Colemans Farm is reduced from an earlier proposal and was added late in the Site Assessment process. The site lies in Rivenhall Parish between Braxted Park Road to the north east and Little Braxted Lane to the south west. Access to the nearby A12 junction 22 would be facilitated via a haul road across open land from a new junction on Little Braxted Lane. Lorry routes could be controlled to exclude a nearby conservation area. Otherwise, despite local concern regarding potential for traffic accidents, there is no highway authority objection, subject to a Transport Assessment of any detailed proposal to include consideration of a safe temporary diversion of a bridleway crossing the site.

131. Little Braxted Lane is an ancient route valued for its rural character, although the more recently constructed junction with the A12 has brought an urban influence to the locality. The addition of further engineering works to provide the site access would be seen against this background.

132. The site is not widely seen from distant viewpoints but is visible from the A12 and from local properties, including listed buildings. The overburden ratio is low but it is envisaged that restoration is feasible without the need for infilling to protect heritage assets but with the inclusion of an open water body. The SA therefore indicates negative impact on the landscape justifying a Stages 1-2 Amber 3 score as well as loss of BMVAL. However, there is potential for flagship biodiversity enhancement.

133. The site lies close to the tranquil Blackwater River Valley, where there is local fear of flooding should mineral extraction disrupt the groundwater regime. That would potentially threaten poplar and cricket-bat willow plantations downstream, as well as protected species. An Appropriate Assessment under the Habitats Regulations would therefore be required. However, neither the SFRA nor the EA record any undue flood risk at this stage. Biodiversity enhancement could include the creation of reedbed habitat complementary to the Blackwater Valley with the benefit of balancing downstream water flows.

134. The deliverability of the site is questioned with regard to both the cost of the necessary access works and the presence of archaeological remains of uncertain extent. At the same time, there is no clear evidence to support these concerns. There is also general concern regarding noise and disturbance to residential amenity, but nothing to suggest that it could not be acceptably mitigated.

135. All such issues would be addressed by EIA of any future development proposal as highlighted throughout the Specific Issues to be Addressed, which are sufficient in their scope and terms to provide a proper framework for the control of any future mineral development at Colemans Farm Preferred Site A46.

Overall Conclusion on Specific Issues to be Addressed

136. In addition to objections to the foregoing most controversial allocations, due consideration has been given to every concern raised in connection with the

other Preferred Sites. In each case, the Specific Issues to be Addressed, listed in Tables 9-24 of Appendix 5 to the RMLP, provide a sufficient framework for ECC as MPA to consider and appraise any future planning applications for sand and gravel extraction within the Preferred Sites concerned.

Cumulative Impact

137. Whereas Stage 4 of the Site Assessment addresses cumulative impacts related to lorry transport, there is much expressed concern regarding perceived cumulative impact of aggregate extraction in a broader sense, especially by the Councils and electors of Braintree District and Chelmsford City. This stems from the fact that the greater number of Preferred Sites are located within the administrative boundaries of those two local authorities, with nearly half the total allocation being situated in Braintree, associated with Bradwell Quarry, Rivenhall.
138. The function of the RMLP is to establish the pattern of future mineral development across Essex as a whole without an overconcentration of mineral sites in any one location. However, it is no part of the Plan strategy, or of the Site Assessment process, to seek to balance the distribution of development on the basis of district boundaries. Notwithstanding the wide choice of potentially developable sites in other districts it is appropriate that sites are selected with reference to their individual merits and planning impacts.
139. The fact that those sites selected as environmentally, socially and strategically acceptable are not more evenly distributed between the component districts of the County might understandably be seen as objectionable from a local standpoint. However, there is no evidence that there will be unacceptable cumulative planning impact in the sense that any community will be surrounded by an overconcentration of simultaneous, multiple mineral developments because there is invariably reasonable separation between the Preferred Sites.
140. Given the available planning controls by way of the development management policies of the Plan and the Specific Issues to be Addressed in connection with each site, there is no ground to find the Plan unsound with respect to potential cumulative impact. This question would fall to be reconsidered in connection with any future planning application in any event.

Conclusion on the Site Assessment overall

141. Given the limited remit of the Examination to assess soundness but not seek to improve the Plan, it would be inappropriate, and against the principles of Localism, to vary the allocations of the Plan contrary to the views of the elected County Council as MPA, merely on a subjective judgement between alternatives. It is concluded that, judged pragmatically on its logic and outcomes, the selection of sites for inclusion in the Plan is justified and that the Site Profiles, tabulated in Appendix 5, set down appropriate and sufficient criteria for their development in terms of Specific Issues to be Addressed.

Identification of Reserve Sites

142. However, for the reasons set out above, it is now necessary to determine which of the sites selected in the Site Assessment Report should be re-allocated as Reserve Sites. ECC provided for consultation with the Schedule of MMs an

Addendum to the Site Assessment Report [*SD-10 Addendum*]. This re-applies Stages 3 to 5 of the Site Assessment, identifying Preferred Sites A6 and A7 at Bradwell Quarry to be re-allocated as Reserve Sites with a total estimated yield of 9mt. These sites are in an area of relatively high concentration of sand and gravel allocations within 20 kilometres of Colchester.

143. The five sites allocated in the submitted Plan at Bradwell Quarry already account for almost 40 per cent of primary extraction from new sites. This would rise to nearly 50 per cent if different Preferred Sites close to other urban areas were re-allocated as an alternative. Moreover, there is nothing to suggest that development growth and consequent demand for aggregates will be particularly weighted toward Colchester among other key centres. Placing Sites A6 and A7 in reserve would avoid an over-concentration of Preferred Sites in this single area and improve the geographical spread of mineral development within the County, in line with Plan strategy. These conclusions are born out in an Addendum to the SA [*CED-10 Addendum*] which was the also subject to consultation with the MMs.
144. It is noted that, in practice, as Preferred Sites, these two allocations would not necessarily come forward later in the Plan period than any others. Their deferment as Reserve Sites thus has commercial implications for the integrated working and restoration of the five new Bradwell Quarry allocations, Sites A3-A7, when viewed as a whole. However, the avoidance of a proliferation of mineral working, unless justified by planning need, is the primary consideration.
145. Furthermore, the remaining Preferred Sites are better located to reduce travel distances overall. This is graphically illustrated in the Site Assessment Addendum [*SD-10 Addendum Map 1*]. Their retention is therefore necessary to maintain the improved relative distribution of sites.
146. The calculation of sand and gravel requirements and the estimation of the potential yield of individual sites is at best an inexact process. In the circumstances, the reduction in Preferred Sites equivalent to 9mt, or just over 22 per cent, is sufficient to avoid an unacceptable over provision in the County as a whole.
147. The deferment of Site A7, whilst avoiding some degree of harm to existing biodiversity interests, reduces the potential for net gain in biodiversity by way of the flagship biodiversity scheme envisaged for the site. On balance, any such disadvantage does not override the broad benefit of avoiding mineral extraction if it proves to be unnecessary.
148. With respect to the spatial distribution of mineral development, it is suggested in response to the MM consultation that, in identifying which of the allocations are to remain as Preferred Sites, preference should have been given to extensions to existing quarries and also that account should be taken of the working life of currently operational sites. However, in the re-application of the Site Assessment and selection process to determine Reserve Sites, account is automatically taken of the presence of existing permitted reserves because that formed part of the original assessment. Moreover, the hybrid strategy adopted involves a mix of extensions and new development. Furthermore, with the exception of Bulls Lodge Quarry as one of the more central southerly current operations, most existing reserves are likely to be worked out before the end of

the Plan period. As a result the distribution of mineral development allocations about the County will remain in accord with the Plan strategy.

Overall Conclusion on the Selection of Preferred and Reserve Sites

149. It is concluded on the fourth issue that the process adopted for the selection of sites for sand and gravel extraction justifies the allocations made by the RMLP. However, **MMs 23-34** are necessary to Policies P1 and P2, their supporting text and Table 5, in order to give effect to the re-allocation of Sites A6 and A7 at Bradwell Quarry as Reserve Sites. With those changes the RMLP is sound with respect to its allocated Preferred and Reserve Sites for sand and gravel extraction.

Issue 5 – Whether the RMLP makes appropriate policy provisions for safeguarding mineral resources and handling facilities, protecting and enhancing biodiversity, development management and for its own monitoring and review

Safeguarding

150. Policy S8 safeguards mineral resources by way of Mineral Safeguarding Areas (MSAs) defined on the Policies Map and requires consultation on planning applications to avoid conflict with competing development within Mineral Consultation Areas (MCAs) extending 250 metres outside the MSAs. The MCAs are thus properly based on the MSAs in line with NPPF para 143. Policy S9 safeguards specific mineral transshipment and processing facilities.
151. Policy S8 imposes a range of balanced criteria to trigger consultation on all development proposals within a MSA, other than certain listed exceptions, above a certain size depending on the nature and extent of the reserve. For sand and gravel the threshold is 5 hectares and there is no locational criterion for requiring consultation. Although arbitrary, the 5ha threshold was subject to public consultation and this approach is justified, given the wide extent of sand and gravel reserves in Essex, where prior extraction need not always be necessary. Where prior extraction is required, its environmental impact and site restoration remain under the control of Policies S10 and S12 as well Development Management Policies DM1-2.
152. Policy S9 includes Bulls Lodge coated stone plant for safeguarding. In contrast, Policy S8 merely applies safeguarding broadly across all identified mineral resources, including the permitted sand and gravel reserves supporting the main quarrying activity at Bulls Lodge. With two relevant planning permissions to 2020 and 2030 respectively, these reserves contribute to the County supply during the Plan period. It is known that mineral extraction at Bulls Lodge is currently running behind schedule and that a time extension is likely to be required for its completion. There is concern that these reserves require express safeguarding from competing development nearby which could jeopardise permission for continued extraction beyond 2030, detrimental to the future sand and gravel landbank. Crucially, as the end date of the submitted RMLP is 2029, there is no question that the reserves in question will enjoy the protection of safeguarding Policy S8 for the whole of the Plan period. Policy S8 is therefore effective and the Plan is sound in this respect. Moreover, the mineral operator has the option of making an advance application to extend the existing permission.

153. Policy S9 also identifies four mineral transshipment sites for safeguarding in line with NPPF para 143, following public consultation. Safeguarding of small facilities, such as Mistley Port for example, is left to district local plans by a reference in para 3.148 of this Plan. In practice Mistley Port is identified and protected in the emerging Tendring District Local Plan. It is nevertheless claimed that small wharfs not specifically identified should be safeguarded at County level by the RMLP. However, it is evident that Mistley Port was not put forward for safeguarding for mineral transshipment in an earlier call for sites by ECC and there is nothing in the NPPF to suggest that there should be blanket safeguarding of such sites without due public consultation. Whilst individual sites should be reconsidered for safeguarding when the Plan is reviewed, there is no ground for modifying the submitted Plan in this connection. Pending review of the Plan, Policy S9 affords a reasonable balance of protection to mineral transshipment and processing facilities to ensure their continued availability within the County
154. Overall, the provisions of the RMLP for safeguarding mineral resources and handling facilities are justified and effective.

Biodiversity

155. There are essentially two aspects of concern raised by Representors over the effect of the provisions of the RMLP on biodiversity. The first is that mineral extraction will lead to irreparable harm to biodiversity such as by the removal of ancient woodland or hedgerows or the loss of protected species of flora and fauna. The second is that the Plan should result in a net gain in biodiversity.
156. Representors point out many vulnerable natural features of the Preferred Sites which will inevitably be affected by sand and gravel extraction, citing in particular a lack of a baseline assessment by which to measure this impact. However, the Site Assessment Report [*SD-10*], reviewed in connection with Issue 4 above, identifies the main biodiversity interests at risk.
157. Appendix 5 of the Plan tabulates Specific Issues to be Addressed for each Preferred Site in connection with any future planning application. These include potential impacts on wildlife sites and protected species to be assessed under the Habitats Regulations as appropriate.
158. A baseline ecological survey will form part of any EIA where biodiversity interests, especially internationally and nationally designated sites, are potentially affected, using the Essex Biodiversity Action Plan as background information. This is expressly set out in para 5.42 of the Plan, meeting NPPF para 109.
159. Given the conclusion under Issue 4 above that the selection of sites is sound overall, it follows that this approach to biodiversity is proportionate to the level of detail appropriate to this Plan and sets a proper framework for the assessment of future planning proposals, including with respect to the aim of net enhancement. General protection to biodiversity is afforded by Policy DM1 and supporting text paragraphs 5.40-43.
160. Whereas existing biodiversity assets cannot be directly replaced, Policies S10 and particularly S12 on site restorations provide for the implementation of the Biodiversity and Habitat Creation Target consistent with the Essex Biodiversity

Action Plan (EBAP) and in line with the NPPF paras 109 and 117. As noted under Issue 4 above, the site selection process has led to the allocation of Preferred Sites and Reserve Sites with the potential to support flagship restoration schemes to meet this target of a 200 hectare contribution to Priority Habitats identified by the EBAP.

161. Overall, the provisions of the RMLP for protecting and enhancing biodiversity are sound.

Development Management

162. The effects of mineral development are suitably controlled by the constraining criteria of Policies DM1-4. These include a requirement for Health Impact Assessments where appropriate. This reflects NPPF para 120 and is not unduly onerous alongside parallel requirements for assessments of other environmental impacts. All such assessments would need to be proportionate to the particular proposal and its likely effects.
163. The development management provisions of the RMLP, including those relating to issues discussed elsewhere in this Report, are sound as submitted, subject only to **MM35** to para 5.29 inserting reference to Reserve Sites consistent with other MMs above.

Monitoring and Review

164. Policy IMR1 provides appropriately for monitoring the performance of the Plan by way of a Monitoring Framework set out at Table 8. This sets a range of indicators as a basis for measuring the implementation of the Plan against quantitative targets. These are properly modified by **MMs 42-44** to account for changes elsewhere with respect to considerations of a separate building sand landbank, the supply of marine-won aggregates and the deferment of Reserve Sites unless the sand and gravel landbank falls below 7 years.
165. Further **MMs 35-40** are required to Table 7 and the supporting text to Policy IMR1, also with reference to Reserve Sites. Otherwise Policy IMR1 also appropriately provides for review of the Plan if the landbank falls below the minimum required and in any event within five years of adoption. Any potential for aggregate supply being impeded by necessary enforcement action against non-compliance with planning conditions on working sites is thus accommodated. With the changes noted, the provisions of the RMLP for monitoring and review are sound.

Overall Conclusion and Recommendation

166. The RMLP has a number of deficiencies in relation to soundness for the reasons set out above. In accordance with Section 20(7A) of the Act, I therefore I recommend non-adoption of the Plan as submitted. These deficiencies have been explored in the main issues set out above.
167. ECC has requested that I recommend Main Modifications to make the Plan sound and capable of adoption. I conclude that, with the recommended Main Modifications set out in the Appendix to this Report, the Essex County Council Replacement Minerals Local Plan January 2013 satisfies the requirements of Section 20(5) of the 2004 Act and meets the criteria for soundness in the National Planning Policy Framework.

B J Sims

Inspector

Note: This report is accompanied by a separate document comprising the Appendix containing the Main Modifications