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Essex County Council Replacement Minerals Local Plan

CD-06 Sustainability Appraisal and Strategic Environmental Assessment Addendum

February 2014

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1 Introduction and Methodology

1.1 Background

Following the Examination in Public (EiP) on the Replacement Minerals Local Plan (RMLP) in November 2013 it has been necessary to set out Main Modifications (MMs) to the Plan in order to make it sound. While the Inspector's provisional conclusion was that the site selection process is sound in its overall approach it was considered necessary to re-apply the process to redefine some Preferred Sites as Reserve Sites that would only come forward if the sand and gravel land-bank falls below 7 years. The schedule of these Main Modifications, and also a RMLP Site Assessment Report Addendum, both to which this Sustainability Appraisal update applies, sets out the amendments to the site assessment methodology which are necessary to accompany the Main Modifications to the RMLP.

1.2 Sustainability Appraisal and Strategic Environmental Assessment

The requirement for Sustainability Appraisal (SA) and Strategic Environmental Assessment (SEA) emanates from a high level national and international commitment to sustainable development. The most commonly used definition of sustainable development is that drawn up by the World Trade Commission on Environment and Development in 1987 which states that sustainable development is:

'development that meets the needs of the present without compromising the ability of future generations to meet their own needs.'

The European Directive 2001/42/EC "on the assessment of the effects of certain plans and programmes on the environment" (the 'SEA Directive') was adopted in June 2001 with a view to increase the level of protection for the environment, integrate environmental considerations into the preparation and adoption of plans and programmes and to promote sustainable development.

It requires a Strategic Environmental Assessment to be carried out for all plans and programmes which are:

'subject to preparation and/or adoption by an authority at national, regional or local level or which are prepared by an authority for adoption, through a legislative procedure by Parliament or Government, and required by legislative, regulatory or administrative provisions'.

The few exceptions are detailed in Article 3 (8, 9) of the SEA Directive. The aim of the SEA is to identify potentially significant environmental effects created as a result of the implementation of the plan or programme on issues such as

'biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors'

as specified in Annex 1(f) of the Directive. The Directive was transposed into English legislation by the Environmental Assessment of Plans and Programmes Regulations 2004, which came into force on 21 July 2004.

Sustainability Appraisals examine the effects of proposed plans and programmes in a wider context, taking into account economic, social and environmental considerations in order to promote sustainable development. They are mandatory for all Development Plan Documents in accordance with the Planning and Compulsory Purchase Act 2004 as amended.

Whilst the requirements to produce a Sustainability Appraisal and Strategic Environmental Assessment are distinct, Government guidance considers that it is possible to satisfy the two requirements through a single approach providing that the requirements of the SEA Directive are met.

1.3 The aim and structure of this report

This report forms part of the Sustainability Appraisal (SA) of the Replacement Minerals Local Plan. It should be read alongside the SA/SEA Environmental Report of the Replacement Minerals Local Plan that was submitted for Examination in Public. Sustainability Impacts identified in this report represent changes to the aforementioned SA/SEA Environmental Report.

This report screens and appraises where necessary the Main Modifications made to the RMLP post-examination and also the Site Assessment Report Addendum, which sets out the amendments to the site assessment methodology which are necessary to accompany the Main Modifications to the RMLP.

Within the Main Modifications schedule, numerous changes to the RMLP are proposed. These changes are a result of recommendations made by the Inspector post hearing. Changes at this stage in the plan-making process could change the direction of the Plan; therefore it is essential that the changes are also subject to SA/SEA.

This report shows the findings of the SA/SEA of the Main Modifications and the Site Assessment Report Addendum. Where necessary, options have been explored through this report to determine whether the modifications represent the most sustainable reasonable alternative.

This report is split into two sections. The first section screens each Main Modification for a significant impact. Where this occurs, this section also presents the findings of the SA/SEA of the Main Modifications singularly and where relevant cumulatively. The second section presents the SA/SEA of the Site Assessment Report Addendum. The temporal, secondary, cumulative and synergistic impacts of all changes at this stage in the RMLP's development have been highlighted if and where they occur.

It should be noted that minor changes are also proposed to the RMLP. The National Planning Practice Guidance is clear that changes to the Local Plan that are not significant will not require further SA/SEA work. The guidance defines significant changes as those that 'substantially alters the draft plan and [are] likely to give rise to significant effects'. Nevertheless, minor changes have also been screened for significant impacts, and appear in this report where such impacts occur.

2 Main Modifications to the Replacement Minerals Local Plan

2.1 SA/SEA Screening Process and Amendments to the SA/SEA Environmental Report

All the Main Modifications of the ECC RMLP have been screened to identify whether or not they will have significant sustainability effects that would change those identified in the SA/SEA Environmental Report for the RMLP that was submitted for Examination in Public.

The following tables explore the sustainability effects of those Main Modifications to the RMLP on a chapter and appendix basis as they appear in the Schedule of Proposed Modifications to the Submission Plan. The final column notes whether changes to the SA/SEA are subsequently required, and documents and explains any amendments to the SA/SEA Environmental Report in response to each modification where necessary.

Table 1: Main Modifications and Impact on Replacement Minerals Local Plan SA/SEA – Chapter 2 (Spatial Portrait and Key Minerals Planning Issues

Ref.	Page No.	Policy / Para / Table / Figure No.	Modification	Justification	Impact on Sustainability Appraisal
MM1	21	Para 2.31	<p>Insert new sentence at the end of paragraph as follows:</p> <p><u>If there is the potential for increased contribution of sand and gravel from marine sources in the future this will be monitored.</u></p>	<p>Marine dredged aggregate forms an important part of the overall supply of aggregate.</p> <p>Notwithstanding none is landed on wharfs in the Plan area, it is desirable to monitor operational constraints around landing facilities particularly those in the adjoining authority of Thurrock and review the ability for its continued or even increased contribution as a substitute for a portion of the land won plan provision.</p>	No direct impact to relevant section of the SA/SEA.
MM2	23	Para 2.39	<p>Amend point seven as follows:</p> <p>Protect existing, and Preferred and <u>Reserve</u> Sites for extraction so their ability to supply essential resources is not compromised, (economic).</p>	Cross references the addition of the term 'reserve sites' introduced into Policy 6 of the MLP.	No direct impact to relevant section of the SA/SEA.
MM3	23	Para 2.39	<p>Amend point ten as follows:</p> <p>10. Enable HGV distances to serve Essex are reduced to minimise carbon</p>	Cross references the addition of the term 'reserve sites' introduced	No direct impact to relevant section of the SA/SEA.

			emissions, having regard to the locations of Preferred and Reserve Sites and mineral demand, (economic, social and environmental).	into Policy 6 of the MLP.	
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Table 2: Main Modifications and Impact on Replacement Minerals Local Plan SA/SEA – Chapter 3 (The Strategy)

Ref.	Page No.	Policy / Para / Table / Figure No.	Modification	Justification	Impact on Sustainability Appraisal
MM4	24	Table 1	<p>Amend final part of Point (B) as follows:</p> <p>A steady and adequate supply of sand and gravel will be provided, having regard to the Local Aggregate Assessment and the targets agreed with the East of England Aggregates Working Party. whilst not Phasing has been introduced so as to avoid over-supplying in order to protect Essex's environment and our finite mineral resources. Plan provision will also be made for silica sand and brick clay.</p>	Plan provision has effectively been phased across the Plan period through introduction of 'reserve sites' by way of change to Policy S6 of the MLP.	<p>Appraisal of Spatial Vision p22-27 of the SA/SEA Environmental Report:</p> <p>Although already identified as positive (and therefore no increase to the predicted impact can occur to 3.2.2 in this instance), the introduction of phasing to actively avoid over-supply is likely to have further positive impacts on Sustainability Objectives related to the sustainable use of minerals (SO12) and landscape (SO9) in the short-medium term. This is through a reduction in the sand and gravel provision over the same period of time in the Pre-Submission Draft RMLP.</p>
MM5	25	Table 1	<p>Amend final part of Point (G) as follows:</p> <p>Existing, permitted, and Preferred and Reserve mineral sites and mineral supply infrastructure will be safeguarded to ensure the effective operation of these sites is not compromised, and to prevent incompatible development taking place close to existing or planned minerals development to the potential</p>	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.

			detriment of existing or future occupants.		
MM6	27	Aims and Strategic Objectives	Amend 'Aims' point 5 as follows: 5. To protect and safeguard existing mineral reserves, existing permitted mineral sites and Preferred <u>and Reserve</u> Sites for mineral extraction, as well as existing proposed sites for associated mineral development.	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.
MM7	28	Para 3.3	Amend third sentence as follows: To this end, the Plan identifies Preferred <u>and Reserve</u> Sites for future development.	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.
MM8	33	Policy S2	Amend point 6 as follows: 6. Making planned provision through Preferred <u>and Reserve</u> Site allocations for a steady and adequate supply of aggregates and industrial minerals to meet identified national and local mineral needs in Essex during the plan-period whilst maintaining landbanks at appropriate levels,	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.
MM9	47	Para 3.82	Amend second sentence as follows: It is considered unnecessary and impractical to maintain separate landbanks for County sub-areas or to distinguish between building sand and concreting aggregates, <u>although further monitoring of building sand will be undertaken to establish whether this</u>		No direct impact to relevant section of the SA/SEA. Despite this, there may be some positive impacts on SA Objective 14 (reducing mineral miles) where the extraction of building sand in the County may become viable following the monitoring described in this Main Modification. This would see a

			<u>situation needs to be reviewed.</u>		reduction in the need to import building sand into the County.
MM10	47	Para 3.84	<p>Insert new sentence after second sentence as follows:</p> <p><u>Where the landbank falls below seven years there will be an opportunity to bring Reserve Sites forward for extraction.</u></p>	Clarifies the mechanism for plan provision being phased across the Plan period through introduction of 'reserve sites' by way of change to Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.
MM11	49	Para 3.95	<p>Amend first sentence as follows:</p> <p>This Plan has therefore been prepared to provide 4.31mtpa of sand and gravel over the plan-period, to be provided by existing sites with permission, and Preferred <u>and Reserve</u> Sites proposed by the Plan.</p>	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.
MM12	49	Para 3.96	<p>Amend as follows:</p> <p>The numerical difference between the sub-regional apportionment figure and the sales figures provides for flexibility in the Plan. If future sales do not approach the sub-regional apportionment figure then provision made now can be rolled forward in a Local Plan Review to cover the period extending beyond 2029. Conversely, if the <u>The provision allocated through both preferred and reserve sites meets the 4.31 mtpa sub-regional apportionment figure. The provision for solely preferred sites is based on 10 year average sales. Should</u> sales figures 'bounce back' to higher volumes closer to recent pre recessionary experience, then the Plan</p>	Amends explanatory text to Policy S6 to introduce the basis for the new approach whereby some sites have been redefined as reserve sites.	<p>Appraisal of The Minerals Provision p80-85 Section 5.2 and Section 5.3 of the SA/SEA Environmental Report</p> <p>The Pre-Submission Draft RMLP identified the Sub National Aggregate 'Apportionment' figure as the preferred method for calculating the required provision of sand and gravel over the plan period. The alternative method of calculating sand and gravel provision, as iterated in the NPPF and explored as an alternative in the SA/SEA Environmental Report, was provision based on a 10 year rolling sales average of land won sand and gravel. This figure was approximately 11mt below the 'Apportionment' figure of approximately 40mt.</p>

			<p>will be able to deal with this outcome effectively and this is addressed in the Plan through the ability to bring forward the allocated reserve sites while continuing to provide certainty to local communities and the minerals industry about where minerals development will take place.</p>		<p>The approach identified in this Main Modification (MM12) can be seen as a conforming to the two approaches, where a ten year rolling sales average is met through 'preferred' sites and, to allow flexibility, the sub national aggregate apportionment figure could be met through extraction at 'reserve' sites, should the landbank fall below 7 years.</p> <p>The impacts on the SA/SEA Environmental Report will therefore see an amalgamation of the impacts identified in 5.2 (p80) and 5.3 (p83). Although many of the environmentally based sustainability objectives will remain uncertain due to site specifics of preferred and reserve sites, the new approach will encompass the benefits of the 10 year rolling sales average methodology, namely positive short-medium term impacts on sustainable mineral use (SO12), whilst sustaining the economic benefits (SO11) of the sub national aggregate apportionment approach. Impacts are limited for SO11 however where there is uncertainty for the developer, and the creation of employment opportunities, regarding the redefined 'Reserve Sites' and when these might come forward.</p> <p>The introduction of reserve sites, and their safeguarding, will also strengthen the notion of sustainable mineral use (SO12) where the Plan is flexible enough to react to market changes and future growth without either the risk of potential over-supply in terms of extraction, or inappropriate sites being permitted to meet demand in the future should the route of</p>
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					omitting 'reserve' sites have been taken.
MM13	51	Para 3.110	<p>Amend first sentence as follows:</p> <p>A plan-led approach excluding such an allowance and identifying Preferred <u>and Reserve Sites</u>, provides greater certainty for local communities and the minerals industry about where minerals development will take place over the long-term.</p>	<p>Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.</p>	<p>No direct impact to relevant section of the SA/SEA.</p>
MM14	52	Policy S6	<p>Amend as follows:</p> <p>The Mineral Planning Authority shall endeavour to ensure reserves of land won sand and gravel are available <u>until 2029</u>, sufficient for at least 7 years extraction or such other period as set out in national policy, taking into account the local annual supply requirement for Essex. This requirement will be periodically assessed.</p> <p>The Plan identifies sufficient provision through Preferred Sites allocations (listed in Table 5) until 2029 and will be subject to periodic review to enable the maintenance of at least a seven year landbank.</p> <p><u>The working of Reserve sites will only be supported if the landbank is below 7 years.</u></p> <p>Proposals for mineral extraction on non <u>outside</u> Preferred <u>or Reserve</u> Sites will be resisted by the Mineral Planning Authority unless the applicant can</p>	<p>Clarifies the mechanism for plan provision being phased across the Plan period through introduction of 'Reserve sites'. The overall plan provision continues to be based on applying the sub-national supply guidelines which have been apportioned to individual mineral planning authorities on the advice of the aggregate working party.</p> <p>However, the basis for differentiating between Preferred and Reserve Sites is the 10 year average sales and the mechanism for bringing reserve sites forward is if the land-bank falls below 7 years, thereby ensuring that potential excessive supply is avoided, subject</p>	<p>Section 4.7 (Appraisal of) Policy S6 p51-54 of the SA/SEA Environmental Report</p> <p>The Main Modification is not likely to impact the appraisal of Policy S6 in so far as is evidenced in 4.7.2 where positive impacts have already been identified for relevant criteria. However, there will be a general minimisation of the potential collective short-medium term environmental impacts that are identified within the text of 4.7.3 in accordance with provision being more closely aligned with the ten year rolling average sales.</p> <p>Impacts on those Sustainability Objectives that most closely relate to the maintenance of the land-bank will remain the same in principle, albeit less due to periodical assessment and more related to demand, sales and a relationship with growth.</p>

			<p>demonstrate:</p> <p>a. An overriding justification and/ or overriding benefit for the proposed extraction, and,</p> <p>b. The scale of the extraction is no more than the minimum essential for the key purpose of the proposal, and,</p> <p>c. The proposal is environmentally suitable, sustainable, and consistent with the relevant policies set out in the Development Plan.</p>	to market conditions.	
MM15	57	Para 3.130	<p>Amend first sentence as follows:</p> <p>It is necessary to safeguard existing mineral workings, and Preferred <u>and Reserve</u> Sites to prevent the possibility of new incompatible neighbours being established and ultimately restricting their activities.</p>	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.
MM16	57	Para 3.131	<p>Amend Bullet 3 as follows:</p> <p>Preferred <u>and Reserve</u> Sites proposed in this Plan for future mineral extraction.</p>	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.
MM17	59	Policy S8	<p>Amend first paragraph as follows:</p> <p>By applying Mineral Safeguarding Areas (MSAs) and/ or Mineral Consultation Areas (MCAs), the Mineral Planning Authority will safeguard mineral resources of national and local importance from surface development that would sterilise a significant economic resource or prejudice the</p>	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.

			<p>effective working of a permitted mineral reserve, or Preferred <u>or Reserve</u> Site allocation within the Minerals Local Plan. The Minerals Planning Authority shall be consulted, and its views taken into account, on proposed developments within MSAs and MCAs except for the excluded development identified in Appendix <u>95</u>.</p>		
MM18	59	Policy S8	<p>Amend first and last paragraphs under Mineral Consultation Areas as follows:</p> <p>MCAs are designated within and up to an area of 250 metres from each safeguarded permitted minerals development and Preferred <u>and Reserve</u> Site allocation as shown on the Policies Map and defined on the maps in Appendix 40 <u>6</u>. The Mineral Planning Authority shall be consulted on:</p> <p>Proposals which would unnecessarily sterilise mineral resources or conflict with the effective workings of permitted minerals development, or Preferred <u>or Reserve</u> Mineral Site allocation shall be opposed.</p>	<p>Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.</p>	<p>No direct impact to relevant section of the SA/SEA.</p>
MM19	68	Para 3.177	<p>Amend as follows:</p> <p>The three tiers of the hierarchical approach are equally applicable to any minerals related planning application, including new proposals for transshipment sites requiring connection to the road network. The Highway Authority has reviewed the Preferred <u>and Reserve</u> Sites with their preference being for sites which utilise and make</p>	<p>Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.</p>	<p>No direct impact to relevant section of the SA/SEA.</p>

			the most effective use of the upper tiers of the route hierarchy in order to keep traffic away from unsuitable minor roads.		
MM20	68	Para 3.182	<p>Amend first part of paragraph as follows:</p> <p>It is important to ensure that the effects of traffic on any local community, the environment and the local road network are carefully considered, including the cumulative impacts of these. Where Preferred <u>or Reserve</u> Sites are extensions to existing quarries, these areas should be worked consecutively in order that mineral extraction in the existing quarry be completed prior to mineral extraction commencing in the new "extension area".</p>	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.
MM21	72	Para 3.197	<p>Amend third and fourth sentences as follows:</p> <p>The Plan proposes an ambitious target for the creation of a minimum of 200ha of priority habitat creation in Essex from the Preferred <u>and Reserve</u> Site allocations. Six UK-BAP habitats<u>UK Biodiversity Framework habitats</u> have been selected reflecting local conservation priorities as well as the geological and hydrological character of the Preferred <u>and Reserve</u> Sites:</p>	<p>Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.</p> <p>Editing changes bring the plan up to date.</p>	No direct impact to relevant section of the SA/SEA.
MM22	72	Para 3.199	<p>Amend as follows:</p> <p>For instance the Preferred <u>and Reserve</u> Sites in Appendix 5 at Bradwell Quarry (Rivenhall), A9 Broadfield Farm (Rayne), Sunnymead (Alresford),</p>	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.

			Maldon Road (Birch) and Land at Colemans Farm (Witham) provide particular opportunities for new habitat areas.		
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Table 3: Main Modifications and Impact on Replacement Minerals Local Plan SA/SEA – Chapter 4 (Preferred Minerals Sites for Minerals for Primary Extraction)

Ref.	Page No.	Policy / Para / Table / Figure No.	Modification	Justification	Impact on Sustainability Appraisal
MM23	76	Chapter Title	Amend as follows: 4 PREFERRED AND RESERVE MINERAL SITES FOR PRIMARY MINERAL EXTRACTION	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.
MM24	76	Para 4.4	Amend as follows: The Preferred and Reserve Sites as defined in Policies P1 and P2 provide for the following amount of mineral resource up to 2029, 40.824 million tonnes of sand and gravel extraction with 31.824mt coming from Preferred Sites and 9mt coming from Reserve sites; and	Amends explanatory text to Policy P1 to explain the differentiation between Preferred and Reserve Sites by way of change to Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA. The impacts of the principle of this Main Modification can be found in the 'Impact on Sustainability Appraisal' column of MM12 and MM14.
MM25	76	Para 4.5	Amend as follows: This is comprised of 16 allocations on 10 sites, of which 13 are extensions to existing quarries and 3 are new sites. Of these 16 allocations 2 would be Reserve	Amends explanatory text to Policy P1 to explain the differentiation between Preferred and Reserve Sites by way of change to Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.

			<u>Sites.</u>		
MM26	76	Para 4.7	<p>Amend second sentence as follows:</p> <p>A Sustainability Appraisal Report is also available as a supporting document explaining how Sustainability Appraisal/ Strategic Environmental Assessment (SA/ SEA) has informed and influenced the selection of the Preferred Sites.</p>	Cross reference to the selection of sites now including more than one type of 'site'.	No direct impact to relevant section of the SA/SEA.
MM27	77	Policy P1	<p>Amend as follows:</p> <p>In the case of Preferred Sites for sand and gravel extraction, the principle of extraction has been accepted and the need for the release of mineral proven. <u>In the case of Reserve Sites for sand and gravel extraction, the principle of extraction has also been accepted, however, the release of minerals from these sites is subject to the landbank falling below seven years.</u></p> <p>The Mineral Planning Authority will grant planning permission for sand and gravel workings within the Preferred <u>and Reserve</u> Sites, listed in Table 5 (Preferred <u>and Reserve</u> Sites for land won Sand and Gravel Provision) and as shown on the Policies Map, subject to the proposal meeting the detailed development requirements set out in Appendix <u>51</u>, other relevant policies of the Development Plan for Essex and any other material considerations.</p>	<p>Clarifies the differentiation in principle between Preferred and Reserve Sites which comes down to reserve sites being phased on the basis that the full plan provision may not be needed over the plan period. As with Policy S6 it sets out that the mechanism for bringing reserve site forward is based on the size of the land-bank.</p> <p>Both Preferred and Reserve sites have been through a robust site selection process and are deemed to be socially and environmentally acceptable. None-the-less preferred sites have been redefined as reserve sites on the basis of those that are least desirable at the present time.</p> <p>Differentiating between preferred and reserve</p>	No direct impact to relevant section of the SA/SEA.

				sites has been undertaken with reference to the full site selection process and in particular Stages 3-5. This process is set out in the attached addendum. As explained in the addendum the site selection process has been further refined through particular preference to those preferred sites which may ultimately provide for the best possible geographic dispersal across the County.	
MM28	77	Table 5	Amend title as follows: Table 4 Preferred <u>and Reserve</u> Sand and Gravel Sites	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.
MM29	77	Table 5	Insert new header above row one of table as follows: <u>Preferred Sand and Gravel Sites:</u>	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.
MM30	78	Table 5	Insert new header below row 16 (B1 Slough Farm) as follows: <u>Reserve Sand and Gravel Sites</u>	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.
MM31	77 & 78	Table 5	Move rows four and five of table (A6 & A7 Bradwell Quarry) to below row 16 (B1 Slough Farm).	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.

MM32	78	Table 5	Delete Note 2	Reflecting the introduction to reserve sites and preference towards Preferred Sites.	No direct impact to relevant section of the SA/SEA.
MM33	80	Para 4.10	Amend first sentence as follows: The Preferred and Reserve Sites are site specific allocations and the site boundary delineated in the respective site profile is the maximum extent of the minerals development within a planning application.	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.
MM34	80	Para 4.11	Insert new sentence at end of paragraph as follows: <u>This applies equally to Reserve Sites, however, for extraction to be supported at Reserve Sites the need for mineral extraction would require to be demonstrated. Such need could only be demonstrated if the landbank falls below 7 years.</u>	Further explanation to assist understanding of the difference between Preferred and reserve Sites by way of change to Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.

Table 4: Main Modifications and Impact on Replacement Minerals Local Plan SA/SEA – Chapter 5 (Development management Policies)

Ref.	Page No.	Policy / Para / Table / Figure No.	Modification	Justification	Impact on Sustainability Appraisal
MM35	85	Para 5.29	Amend first and second sentences as follows: The location of Preferred and Reserve Sites for future minerals development	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.

			proposed in this Plan has been informed at all stages by a Strategic Flood Risk Assessment (SFRA). Those proposing to develop in these Preferred <u>or Reserve</u> Sites should refer to the SFRA and the Technical Guidance to the NPPF when preparing their proposals.		
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Table 5: Main Modifications and Impact on Replacement Minerals Local Plan SA/SEA – Chapter 6 (Implementation, Monitoring and Review)

Ref.	Page No.	Policy / Para / Table / Figure No.	Modification	Justification	Impact on Sustainability Appraisal
MM36	94	Para 6.2	Amend as follows: The following table details the current mineral companies with whom ECC will be required to work with, their sites, and whether the site is currently being worked or whether it was selected as a Preferred <u>or Reserve</u> Site for future working.	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.
MM37	94	Para 6.3	Amend first and second sentences as follows: The Table below denotes existing permitted sites, the new Preferred <u>and Reserve</u> Sites as allocated within this Plan and as set out in Section 4 and Tables 5 and 6, and the current mineral operator assigned with that site. The 'Preferred <u>and Reserve</u> Sites' for future mineral extraction will only be developed if brought forward by the respective mineral operator (with the landowners'	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.

			support).		
MM38	94 & 95	Table 7	Amend third column heading as follows: Existing, or Preferred <u>or Reserve</u> Site	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.
MM39	94	Table 7	Amend fourth rows and insert new row below as follows: Site Operator: Blackwater Aggregates Sites: Bradwell Quarry, Rivenhall Airfield (Sites A2 - A7A5) (Extension to Bradwell Quarry) Existing, Reserve or Preferred Site: Preferred Sites: <u>Bradwell Quarry, Rivenhall Airfield (Sites A6 and A7) (Extension to Bradwell Quarry)</u> Existing, Reserve or Preferred Site: <u>Reserve</u>	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA. The selection methodology of reserve sites is explored in Section 3 of this report.
MM40	95 & 96	Para 6.4	Amend as follows: Subject to planning permission being granted, and based on the information provided by Site Promoters, the 'Preferred <u>and Reserve</u> Sites' would come into operation in a phased manner across the plan period. This Phasing information was provided to the Council by Site Promoters and it is both outside of the considered unnecessary to control the release of Preferred Sites beyond being of the Council and subject to external market forces. However <u>for Reserve Sites it is considered necessary that need for their extraction should demonstrated to ensure that oversupply</u>	Further explanation to assist understanding of the difference between Preferred and Reserve Sites by way of change to Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA. The impacts of the principle of this Main Modification can be found in the 'Impact on Sustainability Appraisal' column of MM12 and MM14.

			<u>does not take place.</u> It is considered that the indicative phasing is such that sand and gravel will be available to serve the Essex market throughout the plan period.		
MM41	98	Table 8	<p>Insert new monitoring indicator two (numbering of subsequent indicators to be updated) as follows:</p> <p>Indicator: <u>The need for a separate landbank for building sand</u></p> <p>Related Policy: <u>Policy S6: Provision for Sand and Gravel Extraction</u></p> <p>Target: <u>Establish a consistent baseline of building sand sales and reserves in Essex over a 5 year time frame. This will be a factor in assessing whether a separate building sand landbank can be established.</u></p> <p>Implementation: <u>Engaging with the minerals industry to establish sales / reserves of building sand</u></p> <p>Data Source: <u>Mineral industry returns.</u></p> <p>Frequency: <u>Annually through AMR.</u></p> <p>Responsibility: <u>ECC and mineral operators.</u></p>	Collection of such data would assist in any future consideration for the desirability to create a separate building sand land-bank within the Plan area.	<p>No direct impact to relevant section of the SA/SEA.</p> <p>Despite this, there may be some positive impacts on SA Objective 14 (reducing mineral miles) where the extraction of building sand in the County may become viable following the monitoring described in this Main Modification. This would see a reduction in the need to import building sand into the County.</p>
MM42	98	Table 8	<p>Insert new monitoring indicator three (numbering of subsequent indicators to be updated) as follows:</p> <p>Indicator: <u>Contribution of marine dredged sources towards overall</u></p>	Marine dredged aggregate forms an important part of the overall supply of aggregate.	No direct impact to relevant section of the SA/SEA.

			<p><u>aggregate provision</u></p> <p>Related Policy: <u>Policy S6: Provision for Sand and Gravel Extraction.</u></p> <p>Target: <u>That if marine imports come within 90% of wharf capacity in Greater Essex then a review is undertaken to determine whether capacity is constraining the landing of marine dredged aggregate and the potential for increasing capacity at either existing or new transshipment sites.</u></p> <p>Implementation: <u>Engaging with the minerals industry, adjoining port and district authorities where landings occur to retain or increase existing processing capacity.</u></p> <p>Data Source: <u>Bespoke investigation of wharf capacity</u></p> <p>Frequency: <u>Annually through AMR</u></p> <p>Responsibility: <u>ECC, minerals industry, adjoining authorities and port companies.</u></p>	<p>Notwithstanding none is landed on the wharfs in the Plan area, it is desirable to monitor operational constraints around landing facilities particularly those in the adjoining authority of Thurrock and review the ability for its continued or even increased contribution as a substitute for a portion of land won plan provision.</p>	
MM43	99	Table 8	<p>Amend Target for Indicator three as follows:</p> <p><u>At least 30mt at any time, with Maintenance of a 7 year landbank based on a production potential of 4.31 mtpa from permitted pits for a period of seven years.</u></p>	<p>Confirms that the size of the land-bank represents the key indicator for determining whether reserve sites should therefore be brought forward as set out in Policy S6.</p>	<p>No direct impact to relevant section of the SA/SEA.</p> <p>The impacts of the principle of this Main Modification can be found in the 'Impact on Sustainability Appraisal' column of MM12 and MM14.</p>
MM44	99	Table 8	<p>Amend Implementation for Indicator</p>	<p>Confirms that the size of the land-bank represents</p>	<p>No direct impact to relevant section of the</p>

			three as follows: Identification of sites to be promoted with mineral industry <u>Bringing forward unimplemented Preferred or Reserve Sites</u> when the landbank is in danger of falling below <u>7 years target level</u> .	the key indicator for determining whether reserve sites should therefore be brought forward as set out in Policy S6	SA/SEA. The impacts of the principle of this Main Modification can be found in the 'Impact on Sustainability Appraisal' column of MM12 and MM14.
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Table 6: Main Modifications and Impact on Replacement Minerals Local Plan SA/SEA – Chapter 7 (Reference Material)

Ref.	Page No.	Policy / Para / Table / Figure No.	Modification	Justification	Impact on Sustainability Appraisal
MM45	113	Glossary of Terms	Amend Definition for Preferred Site as follows: Definition: An area containing mineral resources which can be identified with a high degree of provision and identified with this Plan where there is a strong presumption in favour of extraction.	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.
MM46	114	Glossary of Terms	Insert new Term and Definition for Reserve Sites as follows: Term: <u>Reserve Sites</u> Definition: <u>An area containing mineral resources identified within this Plan where the planning principle for extraction has been established but cannot be released for extraction (permission granted) until the landbank falls below 7 years.</u>	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.

Table 7: Main Modifications and Impact on Replacement Minerals Local Plan SA/SEA – Appendix Five (Site Profiles for Preferred Sites)

Ref.	Page No.	Policy / Para / Table / Figure No.	Modification	Justification	Impact on Sustainability Appraisal
MM47	137	Appendix Five	Amend appendix title as follows: Appendix Five One Site Profiles for Preferred and Reserve Sites	To reflect deletions of appendices 1-4 and to cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.
MM48	137	Appendix Five	Amend first sentence of first paragraph as follows: This Appendix contains a complete set of individual Site Profiles for each of the proposed Preferred and Reserve Sites subject to Policy P1. Each Site Profile covers the site location, site boundaries, site characteristics, and any detailed development requirements associated with mineral working at each site.	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.
MM49	137	Appendix Five	Amend A6 and A7 as follows: A6 Bradwell Quarry, Rivenhall (Reserve Site) A7 Bradwell Quarry, Rivenhall (Reserve Site)	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA. The selection methodology of reserve sites is explored in Section 3 of this report.
MM50	Page 138	Appendix Five	Insert new page before A3 Site Profile detailing the Specific Issues to be Addressed that apply to all Bradwell sites A3 - A7 (Amended text in point five is in bold) as follows:	To avoid duplication for specific issues to be addressed for sites A3-A7. Cross reference the	No direct impact to relevant section of the SA/SEA.

		<p><u>A3, A4, A5, A6 & A7 Bradwell Quarry, Rivenhall Airfield</u></p> <p><u>A3, A4, A5, A6 & A7: Specific issues to be addressed</u></p> <p><u>The following issues apply to all five sites:</u></p> <p><u>1. Mineral from the site would be processed through the existing processing plant.</u></p> <p><u>2. Mineral traffic would use the existing main site access, and HGV movements would be restricted in line with current levels of working to avoid adverse impacts to the A120. The phasing of site working would need to reflect HGV movement limitations. A Transport Assessment would be required.</u></p> <p><u>3. Improvements to the crossing points at Ash Lane and Church Road would be required.</u></p> <p><u>4. There has been a long history of settlement and occupation within this landscape. An historic environmental assessment would be required with any application/ EIA.</u></p> <p><u>4. The sites comprise the best quality Grade 2 agricultural soils and it is expected that these would be retained on site during restoration.</u></p> <p><u>5. A Masterplan would be required covering the Bradwell Quarry in its entirety. This would ensure all pre-extraction activity, site working and</u></p>	<p>addition of the term 'reserve sites' introduced into Policy S6 of the MLP.</p>	
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			<p><u>restoration is considered as a whole and restoration potential is maximised including the opportunity for significant biodiversity enhancement and habitat creation on site. The first Preferred Site for Bradwell Quarry for which there is an application (e.g., from the sites A3-A7) should provide indicative phasing,/ restoration levels/and after-uses for all the Bradwell Quarry Preferred and Reserve Sites as part of the Masterplan. and The developer shall be expected to enter into a legal agreement to ensure that any subsequent applications for Preferred or Reserve Sites at Bradwell Quarry shall be in accordance with the Masterplan and indicative phasing/restoration levels/ after-uses. Careful consideration must be given to the final low-level restoration contours to ensure the final landform blends with the surrounding topography and could blend with the levels and planting of the strategic waste management development (Ref ESS/37/08/BTE) if implemented.</u></p>		
MM51	139	Appendix Five	Move map from page 148 and update to show Preferred and reserve site boundaries.	Editing changes to shorten, streamline or simplify the plan in preparation for adoption.	No direct impact to relevant section of the SA/SEA.
MM52	144	Table 12	Amend page title as follows: A6 Bradwell Quarry, Rivenhall Airfield = <u>Reserve Site</u>	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP	No direct impact to relevant section of the SA/SEA. The selection methodology of reserve sites is explored in Section 3 of this report.

MM53	144	Site A6, Specific Issues to be Addressed	Insert new point as follows: <u>1. Applications for extraction at this site are not supported until such time as the landbank falls below 7 years</u>	Implements the mechanism intended for how plan provision is effectively being phased across the Plan period as set out in Policy S6.	No direct impact to relevant section of the SA/SEA. The selection methodology of reserve sites is explored in Section 3 of this report.
MM54	146	Table 13	Amend page title as follows: A7 Bradwell Quarry, Rivenhall Airfield = <u>Reserve Site</u>	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA. The selection methodology of reserve sites is explored in Section 3 of this report.
MM55	146	Site A7, Specific Issues to be Addressed	Insert new point as follows: <u>1. Applications for extraction at this site are not supported until such time as the landbank falls below 7 years</u>	Implements the mechanism intended for how plan provision is effectively being phased across the Plan period as set out in Policy S6.	No direct impact to relevant section of the SA/SEA. The selection methodology of reserve sites is explored in Section 3 of this report.

Table 8: Main Modifications and Impact on Replacement Minerals Local Plan SA/SEA – Appendix Nine (Consultation Procedure for Mineral Safeguarding Areas)

Ref.	Page No.	Policy / Para / Table / Figure No.	Modification	Justification	Impact on Sustainability Appraisal
MM56	207	Table 38	Amend MCA column header as follows: MCA (N.B. The MPA would wish to be consulted on any planning application for development on Development MSA an existing minerals development.)	Cross references the addition of the term 'reserve sites' introduced into Policy S6 of the MLP.	No direct impact to relevant section of the SA/SEA.

			Preferred <u>or Reserve</u> Site)		
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2.2 Temporal, Secondary, Cumulative and Synergistic Effects of the Main Modifications

The following effect has been highlighted:

- Main Modifications 1 and 42 in conjunction with Main Modifications 4, 9 and 12 will have cumulative impacts on SA Objective 10 (sustainable minerals use) and possibly indirectly on some relevant environmental objectives in the instance where marine dredged sand and gravel can substitute for land won sand and gravel extraction in the medium term of the plan.

3 Site Assessment Report Addendum

3.1 Background

Following the hearing on the Replacement Minerals Local Plan (RMLP) in November 2013 it has been necessary to set out main modifications to the plan in order to make it sound. While the Inspector's provisional conclusion is that the site selection process is sound in its overall approach it is considered necessary to re-apply the process to redefine some Preferred Sites as Reserve Sites that would only come forward if the sand and gravel land-bank falls below 7 years.

The Site Assessment Report Addendum documents the amendments to the site assessment methodology which are necessary to accompany the main modifications to the Replacement Minerals Local Plan (RMLP). It also highlights which of the previously preferred sites have now been selected as 'Reserve Sites' should the above situation occur to the sand and gravel land-bank.

3.2 The Selection of 'Reserve Sites'

This section appraises the methodology approach of selecting the 'Reserve Sites'. This report also explores reasonable alternative approaches to the selection of 'Reserve Sites', including their comparative performance against sustainability objectives, their validity and reasons for rejection. Note: Post-examination, it can not be deemed 'reasonable' to explore the selection of any 'Non-Preferred' sites as identified at any point during the plan-making process.

3.2.1 Selected Approach – Those sites that passed Stages 1-2 assessed against the Spatial Strategy and are able to fulfil the Essex local annual supply requirement over the plan period as 'Preferred Sites'

As stated in the RMLP Site Assessment Report Addendum, those sites that conform to the above criteria are best placed to remain preferred sites, with those that do not being selected as 'Reserve Sites' to be supported only in the instance where the Essex sand and gravel land-bank falls below 7 years. This process seeks to identify those sites that are most suitable to conform to the Spatial Strategy and the 10 year rolling sales average in the first instance, with those remaining, previously 'preferred sites' becoming 'reserve sites'. Regarding conformity to sustainability objectives and criteria, performance can be seen below. Long term impacts are omitted for the appraisal of this methodology, where they respond exclusively to after-care post extraction.

	Sustainability Objectives															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Short Term	/	/	/	/	+	/	/	/	/	0	+	++	0	++	/	/
Medium term	/	/	/	/	+	/	/	/	/	0	+	++	0	++	/	/

There will be significant positive impacts on the sustainable use of minerals (SO12) and reducing minerals miles (SO14) through this approach to the selection of 'Preferred' and 'Reserve' sites. This approach ensures that those elements of the Plan not directly influenced by the provision figure of sand and gravel, remain valid, namely a desire to distribute sites across the plan area whilst also providing for areas based on sales. The Spatial Strategy is not subject to modification post-hearing, and as such can be deemed the most sustainable way of distributing extraction sites across the plan period. Impacts are strengthened through factoring supply into the selection process; ensuring preferred sites will supply key centres. Furthermore, a local annual supply requirement, agreed at EiP subject to the designation of 'Reserve Sites' to bring provision in line with the ten year rolling sales average, is the fundamental purpose of the plan, and as such the selection of sites as 'Preferred' in accordance with this objective will have further positive impacts on the sustainable use of minerals.

There will be positive impacts on economic development and job creation (SO11) in line with the methodology of selecting 'Preferred' and 'Reserve' sites. Where the criteria exist of conforming to the Spatial Strategy, the plan will provide for mineral extraction distributed as evenly as possible across the plan area. Therefore there will also be an as even as possible distribution of employment opportunities through minerals extraction. Impacts are limited however where uncertainty exists for developers of 'Reserve Sites' and subsequent job creation from those sites. There will also be positive impacts on the minerals supply hierarchy (SO5) through a flexible approach to provision.

There will be uncertain impacts on environmental and social objectives where conformity to criteria can only be realised on a site by site basis, including capability of mitigation. Any cumulative negative impacts that could be expected of minerals extraction and experienced in localities can be said to be limited through conformity to a Spatial Strategy of dispersal and in line with the introduction of 'Reserve' sites as required by provision based on a ten year rolling sales average.

3.2.2 Alternative 1 – To select sites that least conform to a principle of spatial distribution only as 'Reserve Sites'

This alternative approach looks at selecting 'Reserve Sites' by conformity to a distribution based principle only. This would be based broadly on dispersal in order to reduce mineral miles and thus 'Reserve Sites' would be selected as those that least conform to this approach in comparison to others across the plan area. Whilst similar in approach to principles of the Spatial Strategy, this approach does not factor in the estimated yield of sites and their ability to contribute to the mtpa requirement. Where sites are concentrated to the east of the County, it would be difficult to select 'Reserve Sites' based on distribution alone. Long term impacts are omitted for the appraisal of this methodology, where they respond exclusively to after-care post extraction.

	Sustainability Objectives															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Short Term	/	/	/	/	+	/	/	/	/	0	+	/	0	+	/	/
Medium term	/	/	/	/	+	/	/	/	/	0	+	/	0	+	/	/

There will be positive impacts on reducing minerals miles (SO14) through this approach to the selection of 'Preferred' and 'Reserve' sites, where it ensures provision as evenly as possible across the County. Impacts are limited however, where this alternative does not also consider the need for sites to be located as close to key centres as possible.

There will be uncertain impacts on sustainable mineral use (SO12). Where sites are concentrated to the east of the County, it would be difficult to separate between sites based on distribution alone. Impacts are therefore uncertain where the selection methodology does not also factor in the estimated yield of sites and their ability to contribute to the mtpa requirement.

There will be positive impacts on economic development and job creation (SO11) in line with the methodology of selecting 'Preferred' and 'Reserve' sites. Where the criteria exist of conforming to the Spatial Strategy, the plan will provide for mineral extraction distributed as evenly as possible across the plan area. There will also therefore be an as even as possible distribution of employment opportunities through minerals extraction. Impacts are limited however where uncertainty exists for developers of 'Reserve Sites' and subsequent job creation from those sites. There will also be positive impacts on the minerals supply hierarchy (SO5) through a flexible approach to provision.

There will be uncertain impacts on environmental and social objectives where conformity to criteria can only be realised on a site by site basis, including capability of mitigation. Any cumulative negative impacts that could be expected of minerals extraction and experienced in localities can be said to be limited through distribution through dispersal and in line with the introduction of 'Reserve' sites as required by provision based on a ten year rolling sales average.

3.2.3 Alternative 2 – To select those sites that had the most negative sustainability impacts (as evidenced in the Sustainability Appraisal) only as ‘Reserve Sites’

As stated in the RMLP Site Assessment Report Addendum, the Site Selection Methodology for selecting preferred sites is relevant to sand and gravel provision at both the Sub National Aggregate Apportionment figure and one based on a ten year rolling sales average. As such, all those impacts identified for individual sites within the RMLP Evidence Base and the SA/SEA Environmental Report are still valid. This Option for selecting ‘Reserve Sites’ responds to selecting those sites with the least amount of negative sustainability impacts as ‘Preferred Sites’, and therefore logically those with the most as ‘Reserve Sites’. Long term impacts are omitted for the appraisal of this methodology, where they respond exclusively to after-care post extraction.

	Sustainability Objectives															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Short Term	/	/	/	/	+	/	/	/	/	0	/	/	0	/	/	/
Medium term	/	/	/	/	+	/	/	/	/	0	/	/	0	/	/	/

This approach would see the selection of the following site as a ‘Reserve’ site:

- A46 – Coleman’s Farm, Little Braxted Lane, Witham (2.5mt): 9 negative impacts

To meet the over-supply figure, a selection of the following sites would also have to be selected as ‘Reserve’ sites:

- A20 – Sunnymead, Alresford (4.6mt): 7 negative impacts
- A31 – Maldon Road, Birch (4mt): 7 negative impacts
- A9 – Broadfield Farm, Rayne (4.2mt): 7 negative impacts

The currently selected ‘Reserve’ sites of A6 (2.5mt) and A7 (6.5mt) both of Bradfield Quarry, Rivenhall Airfield have only slightly less negative impacts at 6 each.

There will be uncertain impacts on reducing minerals miles (SO14) through this approach to the selection of ‘Preferred’ and ‘Reserve’ sites. This approach would ensure that those elements of the Plan not directly influenced by the provision figure of sand and gravel, namely a desire to distribute sites across the plan area as evenly as possible would be subject to change where numerous sites would have to be selected as ‘Reserve’ sites so as to meet the over-supply. The Spatial Strategy is not subject to modification post-examination, and as such can be deemed the most sustainable way of distributing extraction sites across the plan period.

Under this approach, the local annual supply requirement (agreed at the hearing subject to the redefining of sites as ‘Reserve Sites’ to bring provision in line with the ten year rolling sales average) may not be met where ‘Reserve’ and ‘Preferred’ sites are purely selected based on their environmental and social performance and not on their ability to best contribute to the supply of sand and gravel. This is the fundamental purpose of the plan, and as such the selection of sites as ‘Reserved’ in accordance with this selection approach will have uncertain impacts on the sustainable use of minerals (SO12).

There will be uncertain impacts on economic development and job creation (SO11) in line with this methodology of selecting ‘Preferred’ and ‘Reserve’ sites. The selection of sites does not directly conform to the Spatial Strategy, and therefore the plan may not provide for mineral extraction distributed as evenly as possible across the plan area. There will however be positive impacts on the minerals supply hierarchy (SO5) through a flexible approach to provision.

Although it is acknowledged that this approach is likely to have the best environmental and/or social impacts, there will be uncertain impacts on relevant objectives where conformity to criteria can only be realised on a site by site basis, including capability of mitigation, and under this approach there are numerous permeations from a selection of various sites in combination.

Similarly, any impacts would not be realised where extraction at these sites is not guaranteed with their 'Reserve' status in the plan.

3.2.4 Option 3 – To select those sites that the (short term) omission of which closest represents the over-supply (in million tonnes [mt]), as evidenced by the rolling ten year sales average, as 'Reserve Sites'

This alternative looks at selecting those sites that most accurately respond, collectively, to the ten year rolling average sales sand and gravel provision figure as 'Preferred Sites' with those that most accurately represent the over-supply, in terms of million tonnes, as 'Reserve Sites'. Long term impacts are omitted for the appraisal of this methodology, where they respond exclusively to after-care post extraction.

	Sustainability Objectives															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Short Term	/	/	/	/	+	/	/	/	/	0	/	+	0	/	/	/
Medium term	/	/	/	/	+	/	/	/	/	0	/	+	0	/	/	/

There will be uncertain impacts on reducing minerals miles (SO14) through this approach to the selection of 'Preferred' and 'Reserve' sites. This approach would ensure that those elements of the Plan not directly influenced by the provision figure of sand and gravel, namely a desire to distribute sites across the plan area as evenly as possible, could be subject to change where numerous sites may have to be selected as 'Reserve' sites so as to meet the over-supply. The Spatial Strategy is not subject to modification post-examination, and as such can be deemed the most sustainable way of distributing extraction sites across the plan period.

Under this approach, the local annual supply requirement (agreed at the hearing subject to the redefining of sites as 'Reserve Sites' to bring provision in line with the ten year rolling sales average) will be met where 'Preferred' sites are selected purely based on their ability to provide as near to the exact level of minerals as determined by the ten year rolling average sales. This is the purpose of the plan, and as such the selection of sites as 'Reserved' in accordance with this selection approach ensures an appropriate supply of minerals over the plan-period and will have positive impacts on the minerals supply hierarchy (SO5). There will also be positive impacts on the sustainable use of minerals (SO12), although impacts will be limited where the selection of numerous sites to meet the over-supply sites may cumulatively be contrary to the Spatial (distribution) Strategy.

There will be uncertain impacts on economic development and job creation (SO11) in line with this methodology of selecting 'Preferred' and 'Reserve' sites. The selection of sites does not directly conform to the Spatial Strategy, and therefore the plan may not be as responsive to future growth across the County through a provision for mineral extraction distributed as evenly as possible across the plan area. Similarly, employment opportunities created by minerals extraction will not be evenly distributed across the plan area.

There will be uncertain impacts on environmental and social objectives where conformity to criteria can only be realised on a site by site basis, including capability of mitigation, and under this approach there are numerous permeations from a selection of various sites in combination. Similarly, any impacts would not be realised where extraction at these sites is not guaranteed with their 'Reserve' status in the plan.

3.3 Conclusions and Recommendations

It is concluded that the preferred approach of selecting 'Reserve' sites is appropriate in order to best deliver the local annual supply requirement over the plan period and conform to the Spatial Strategy. The Spatial Strategy is not subject to modification post-examination, and as such can be deemed the most sustainable way of distributing extraction sites across the plan period.

Furthermore, a local annual supply requirement, agreed at the hearing subject to the designation of 'Reserve Sites' to bring provision in line with the ten year rolling sales average, is the fundamental purpose of the plan, and as such the selection of sites as 'Preferred' in accordance with this criteria is similarly fundamental.

Where alternative approaches in selecting 'Reserve' sites have merits in order to minimise environmental and social objectives, or best respond to the smallest number of sites being 'Preferred', the selection to sites A6 and A7 at Bradwell Quarry can be seen to limit some of the cumulative impacts associated with the selection of further extension at Bradwell over 5 sites and regarding the concentration of sites around Colchester and Braintree. Almost 40% of all new allocations highlighted in the RLMP come from sites in the eastern third of the County, and any cumulative impacts on the local community and infrastructure is sensibly reduced through the selection of 9mt from 'Reserve' extraction sites in this area.

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