

Consolidated Methodologies (Appendix B – Appendix I)

This document consolidates all the methodologies from the site assessment work so that they can all be conveniently viewed together. All of these methodologies can be found in the appendices, which are readily accessible on our website.

This document simply aims to make it easier for readers to view all of the methodologies together.

Appendix B

Landscape and Visual Sensitivity Detailed RAG Assessment Methodology and Results

Introduction

The assessment considers sensitivity to the ‘principle’ of mineral type development on the proposed Sites. Assessment is based on an outline site area only, unless supported by further information from the promoter, using a combination of desktop study and detailed field survey. As such, this landscape assessment is at a higher level than would be the case at the planning application stage, where the siting, scale and access of associated plant would be more definitively known. The principal source of written information for carrying out the sensitivity assessment is the Essex Landscape Character Assessment (2003). This describes the variations in character between different types of landscape in the county.

Methodology

The study accords with best practice guidance and methodology and follows the techniques and criteria set out in ‘An approach to landscape sensitivity assessment – to inform spatial planning and land management’¹ (Natural England, 2019). The Study is also consistent with the impact assessment guidance and methodology set out within the ‘Guidelines for Landscape and Visual Impact Assessment’² (Third Edition, 2013) (GLVIA3) and ‘An Approach to Landscape Character Assessment’³. In this study the following definition of landscape sensitivity has been used:

“Within the context of spatial planning and land management, landscape sensitivity is a term applied to landscape character and the associated visual resource, combining judgements of their susceptibility to the specific development type / development scenario or other change being considered together with the value(s) related to that landscape and visual resource. Landscape sensitivity may be regarded as a measure of the resilience, or robustness, of a landscape to withstand specified change arising from development types or land management practices, without undue negative effects on the landscape and visual baseline and their value.”

The Landscape Sensitivity Assessment is based on an assessment of landscape character, quality and value using carefully defined variables. As with all analyses this is

¹ Natural England. An approach to landscape sensitivity assessment – to inform spatial planning and land management (July 2019).

² Landscape Institute and Institute of Environmental Management & Assessment. Guidelines for Landscape and Visual Impact Assessment, Third Edition (2013).

³ Natural England. An Approach to Landscape Character Assessment (October 2014)

based upon data and information that is to a greater or lesser extent subjective, therefore some caution is required in its interpretation. This is particularly necessary to avoid the suggestion that certain landscape features or qualities can be absolutely associated with certain sensitivities, whereas the reality is that landscape sensitivity is the result of a complex interaction of often unequally weighted variables. The complexity of the criteria and guidance by Natural England has been adapted to report on a five-point sensitivity scale as proposed in Table 1.

Landscape sensitivity relates to the ability of the receiving landscape/townscape to accommodate change of the type and scale proposed without adverse effects on its character. This is defined in the glossary of the GLVIA as:

‘The extent to which a landscape can accept change of a particular type and scale without unacceptable adverse effects on its character.’ It is noted in the GLVIA that this varies with:

- (i) existing land use;
- (ii) the pattern and scale of the landscape;
- (iii) visual enclosure/openness of views, and distribution of visual receptors;
- (iv) the scope for mitigation, which would be in character with the existing landscape; and
- (v) the value placed on the landscape.

Table 1: Landscape RAG Sensitivity Grade Table

RAG Sensitivity Grade				
RED	RED-AMBER	AMBER	AMBER-GREEN	GREEN
Landscape and / or visual characteristics of the assessment unit(s) are very susceptible to change and / or its values are high and it is unable to accommodate mineral working development without significant character change or	Landscape and /or visual characteristics of the assessment unit are susceptible to change and / or its values are medium through to high. It may be able to accommodate mineral working development but only in limited situations	Landscape and / or visual characteristics of the assessment unit are susceptible to change and / or its values are medium / low through to high / medium and / or it may have some potential to accommodate mineral working development in some defined situations without	Landscape and / or visual characteristics of the assessment unit are resilient and of low susceptibility to change and / or its values are medium / low or low and it can accommodate mineral working development in many situations without significant character	Landscape and / or visual characteristics of the assessment unit are robust or degraded and are not susceptible to change and / or its values are low and it can accommodate mineral working development without

<p>adverse effects. Thresholds for significant change are very low.</p> <p>Mitigation in order to make the Site acceptable is difficult.</p>	<p>without significant character change or adverse effects if defined in the relevant land parcel summary. Thresholds for significant change are low.</p> <p>Likely to require high levels of mitigation in order to make the Site acceptable.</p>	<p>significant character change or adverse effects. Thresholds for significant change are intermediate.</p> <p>Likely to require medium levels of mitigation in order to make the Site acceptable.</p>	<p>change or adverse effects. Thresholds for significant change are high.</p> <p>May require low levels of mitigation in order to make the Site acceptable.</p>	<p>significant character change or adverse effects. Thresholds for significant change are very high.</p> <p>Mitigation not necessarily required but beneficial.</p>
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Landscape and visual sensitivity has been assessed for each Site with reference to 9 criteria as set out in **Table 2** and **Table 3** below.

Table 2: Landscape sensitivity assessment criteria

Criteria	Measurement of criteria	Comments
Landform and landscape features	<p><i>Low Sensitivity</i></p> <ul style="list-style-type: none"> – Smooth, gently undulating or featureless landform; the area has fewer landscape features that are characteristic or valued. <p><i>Medium Sensitivity</i></p> <ul style="list-style-type: none"> – Undulating landform and some distinct landform features within it; the area has some landscape features that are characteristic or valued. <p><i>High Sensitivity</i></p> <ul style="list-style-type: none"> - Dramatic landforms or distinct landform features that contribute positively to landscape character; the area has a high density of landscape features that are characteristic or valued. 	<p>This considers the shape and scale of the landform, landscape pattern and landscape elements in relation to the scale of potential development. It also considers the presence of landscape features if they are important to landscape character (i.e. the representation of elements which are key characteristics or valued features, with reference to the Landscape Character Assessment) because these would potentially be liable to loss.</p>

Criteria	Measurement of criteria	Comments
Complexity	<p><i>Low Sensitivity</i></p> <ul style="list-style-type: none"> - Large, simple landscape with single/limited land uses and variety. <p><i>Medium Sensitivity</i></p> <ul style="list-style-type: none"> - Medium scale landscape with variations in pattern, texture and scale <p><i>High Sensitivity</i></p> <ul style="list-style-type: none"> - small and organic landscape with a variety in pattern, texture and scale 	The complexity and scale of the landscape includes consideration of the land use, field boundaries and levels of enclosure
Enclosure by Vegetation	<p><i>Low Sensitivity</i></p> <ul style="list-style-type: none"> - Enclosed by mature vegetation - extensive tree belts/ woodland <p><i>Medium Sensitivity</i></p> <ul style="list-style-type: none"> - Semi-enclosed by vegetation - Small woodlands - Moderate hedgerows with hedgerow trees <p><i>High Sensitivity</i></p> <ul style="list-style-type: none"> - Limited/poor hedges (with no trees) and/or isolated copses - Largely open with minimal vegetation 	Assumes hedgerows/tree belts/woodlands would provide screening of development and therefore reduce potential landscape and visual impact.
Historic character	<p><i>Low Sensitivity</i></p> <ul style="list-style-type: none"> - Relatively few historic features important to the character of the area - Nearly entirely of modern origin <p><i>Medium Sensitivity</i></p> <ul style="list-style-type: none"> - Some visible historic features of importance to character - Some signs of historic origin <p><i>High Sensitivity</i></p> <ul style="list-style-type: none"> - High density of historic features important to the character of the area - Historic origin is diverse 	Historic Character is derived from the relative presence or absence of local historic features or designations Pre 18 th century landscapes are considered to be particularly important as they pre-date the main enclosure period and therefore the landscape and field patterns are potentially medieval or earlier in origin.
Built development	<p><i>Low Sensitivity</i></p> <ul style="list-style-type: none"> - Considerable presence of built development in the surrounding 	Features include industrial or commercial buildings and infrastructure, residential

Criteria	Measurement of criteria	Comments
	<p>landscape already that have a significant affect the character of the area.</p> <p><i>Medium Sensitivity</i></p> <ul style="list-style-type: none"> - Some built development features within the surrounding area that have an impact on the landscape <p><i>High Sensitivity</i></p> <ul style="list-style-type: none"> - Absence of any built development in the landscape and surrounding area. 	<p>dwelling, transport routes and power lines, brownfield land, and vertical structures.</p>

Table 3: Visual sensitivity assessment criteria

Criteria	Measurement of criteria	Comments
Openness to Public View	<p><i>Low Sensitivity</i></p> <ul style="list-style-type: none"> - Area is well contained from public views <p><i>Medium Sensitivity</i></p> <ul style="list-style-type: none"> - Area is partially contained from public views <p><i>High Sensitivity</i></p> <ul style="list-style-type: none"> - Area is very open to public views 	<p>Public views will include views from Roads, Rights of Way and public open space.</p> <p>The category will depend on the extent of the visibility from all the Site perimeters and rights of way through site, as well as the number of likely viewers.</p>
Openness to Private View	<p><i>Low Sensitivity</i></p> <ul style="list-style-type: none"> - Area is well contained from private views <p><i>Medium Sensitivity</i></p> <ul style="list-style-type: none"> - Area is partially contained from private views <p><i>High Sensitivity</i></p> <ul style="list-style-type: none"> - Area is very open to private views 	<p>This relates to private views from residential properties and non-public buildings and facilities.</p> <p>The category will depend on the extent of the visibility from the Site perimeters as well as the number of likely viewers.</p>
Views towards landmark buildings/natural features	<p><i>Low Sensitivity</i></p> <ul style="list-style-type: none"> - Does not have or allow views towards any landmark buildings/natural features <p><i>Medium Sensitivity</i></p> <ul style="list-style-type: none"> - Has or allows partial views towards landmark buildings/natural features <p><i>High Sensitivity</i></p>	<p>Considers views towards landmark buildings such as; listed buildings and churches.</p> <p>Natural features including; long distance views across landscapes, specimen trees and characteristic features.</p>

Criteria	Measurement of criteria	Comments
	<ul style="list-style-type: none"> - Has or allows very open views towards landmark buildings/ natural features 	
Perceptual Quality	<p>Low Sensitivity</p> <ul style="list-style-type: none"> - The area is significantly influenced by development/ human activity, where new development would not be out of character. <p>Medium Sensitivity</p> <ul style="list-style-type: none"> - A landscape with some sense of rurality, but with some modern elements and human influences. <p>High Sensitivity</p> <ul style="list-style-type: none"> - A tranquil or highly rural landscape, lacking strong intrusive elements. Dark skies and a high perceived degree of rurality/ naturalness with few modern human influences. 	<p>Considers qualities such as rurality (traditional land uses with few modern, human influences), sense of remoteness or tranquillity. Consistently high scenic value, perceived naturalness, freedom from human activity/disturbance and 'dark skies' would all add to sensitivity in relation to this criterion.</p>

Table 4: Matrix showing derivation of combined sensitivity value

This table shows how the separate landscape and visual sensitivity judgements combine.

Landscape sensitivity	High	MEDIUM	MEDIUM-HIGH	HIGH
	Med	MEDIUM-LOW	MEDIUM	MEDIUM-HIGH
	Low	LOW	MEDIUM-LOW	MEDIUM
		Low	Medium	High
Visual and perceptual sensitivity				

HIGH = RED

MEDIUM-HIGH = RED-AMBER

MEDIUM	=	AMBER
MEDIUM-LOW	=	AMBER-GREEN
LOW	=	GREEN

Cumulative landscape and visual effects

Cumulative effects generally occur where there may be simultaneous or sequential visibility of two or more development of the same type and scale, or where the consideration of other schemes would increase an effect identified.

Cumulative landscape effects, either additional or combined are likely to include effects:

- on the fabric of the landscape as a result of removal of or changes in individual elements of features of the landscape and/or the introduction of new elements or features;
- on the aesthetic aspects of the landscape – for example its scale, sense of enclosure, diversity, pattern and colour, and/or on its perceptual or experiential attributes such as a sense of naturalness, remoteness or tranquillity;
- on the overall character of the landscape as a result of changes in the landscape fabric and/or in aesthetic or perceptual aspects, leading to modification of key characteristics and possible creation on new landscape character if the changes are substantial enough.

Cumulative landscape effects as effects that ‘can impact on either the physical fabric or character of the landscape, or any special values attached to it’. With the highest significance where the character of the landscape is changed to such an extent that it becomes a new landscape type or sub-type.

Cumulative landscape visual effects as effects that can be caused by combined visibility, which ‘occurs where the observer is able to see two or more developments from one viewpoint’ and/or sequential effects which ‘occur when the observer has to move to another viewpoint to see different developments.

Appendix C

Biodiversity Detailed RAG Assessment Methodology and Results

Introduction

The technical RAG assessment is a high-level ecological assessment based upon a combination of spatial data and site assessments for each proposed site. It includes regard to the potential for effects upon statutory and non-statutory designated sites, as well as irreplaceable and Priority habitats using a relative grading system where impacts to International statutory designated sites are provided the highest rating in line with the NPPF. It also considers the strategic context of the Site within the local area including with respect to its position within ecological networks.

Methodology

This high-level plan assessment is based upon a combination of desk-based data and ground truthing during on-site assessments at each proposed mineral site. The sensitive ecological features included, the spatial data and buffers used and rationale applied to establish the RAG (Red-Amber-Green) grades are set out below.

The RAG grading is set out in the Biodiversity RAG Sensitivity Grade Table (Table 2) below. This takes into account the need to protect and enhance valued biodiversity sites by identifying and mapping local wildlife-rich habitats and wider ecological networks in accordance with the National Planning Policy Framework¹ (NPPF). This includes the hierarchy of international, national, and locally designated sites. It also considers the relative importance and the contribution that the existing habitats on the proposed mineral site make to wider ecological networks.

Condition and distinctiveness of habitats are not considered as this assessment is concerned with the potential for impacts on the habitat type, irrespective of its condition or distinctiveness. Protected and Priority species are not systematically considered in the grading as habitats are used as a proxy for species. Incidental records of species are mentioned where seen on-site or local knowledge is available.

Restoration proposals have not been taken into account as this stage of the Site assessment process is focussed upon potential ecological impacts.

International statutory designations (i.e., Special Areas of Conservation (SAC), Special Protection Areas (SPA), and Ramsar sites) and national statutory designations (i.e., Site of Special Scientific Interest (SSSI) and National Nature Reserves (NNR)) have been identified within the relevant Impact Risk Zones (IRZ) relating to minerals workings through the Natural England Open-Source datasets,

¹ NPPF [National Planning Policy Framework - 15. Conserving and enhancing the natural environment - Guidance - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/431114/NPPF-2019.pdf)

using the most up-to-date data available. The greatest weight has been attributed to the international designations, followed by national and then local designations including Local Nature Reserves. As well as use of IRZs, additional consideration is given to potential impacts to water quality and water quantity via watercourses, which may extend the potential length of the pollution pathways to beyond the standard Impact Risk Zone buffers.

SPAs, SACs and Ramsar sites are collectively known as 'Habitats sites' within the NPPF and all Habitats sites are additionally designated as SSSIs. Effects on the Habitats sites, alone and in combination with other plans and projects, are also required to be determined through a separate plan-level Habitats Regulations Assessment for the Essex Minerals Local Plan.

Marine Conservation Zones (MCZ) are not included within Impact Risk Zones and so a 2km buffer has been used, as well as proximity of a proposed minerals Site to watercourses leading into a MCZ, thereby creating a potential pollution pathway (for water quality and water quantity) between the MCZ and proposed minerals Site.

The RAG assessment also considers the scale of potential impacts using knowledge of other potential pollution pathways (e.g., air quality and disturbance) between the mineral Site and sensitive features, using the Source-Pathway-Receptor concept, as well as the potential for functionally linked land² and prevailing wind direction. In addition, it uses professional judgement, experience, and local knowledge. The potential for impacts on groundwater dependent habitats have been afforded particular consideration due to the nature of minerals extraction. It is anticipated that air quality will also be considered in greater detail in the above-mentioned Habitats Regulations Assessment for this MLP.

Ancient woodlands can be adversely affected by quarrying such as changes to groundwater, noise, lighting, and the smothering of leaves by dust. Ancient Woodland, ancient trees and veteran trees have a high level of local and national protection and are 'irreplaceable' habitats. The NPPF at paragraph 180 states that, '*c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons, and a suitable compensation strategy exists.*'

Therefore, 'irreplaceable' habitats are graded higher than locally designated and other non-designated habitats.

² Functionally linked land' (FLL) is a term often used to describe areas of land or sea occurring outside a designated site which is considered to be critical to, or necessary for, the ecological or behavioural functions in a relevant season of a qualifying feature for which a Special Areas of Conservation (SAC)/ Special Protection Area (SPA)/ Ramsar site has been designated. These habitats are frequently used by SPA species and supports the functionality and integrity of the designated sites for these features. There is a requirement for competent authorities to consider the importance of functionally linked habitats in Habitats Regulation Assessments (HRAs) when assessing new plans or projects to ensure the Conservation Objectives for the site can still be delivered. The impact of the loss of functionally linked land on European sites can be difficult to determine as there is often limited information available:

[Identification of Functionally Linked Land supporting Special Protection Areas \(SPAs\) waterbirds in the North West of England - NECR361 \(naturalengland.org.uk\)](https://www.naturalengland.org.uk/nature-conservation/science-research/conservation-science/conservation-science-reports/identification-of-functionally-linked-land-supporting-special-protection-areas-spas-waterbirds-in-the-north-west-of-england-NECR361)

The Government Standing Advice for Ancient woodland, ancient trees, and veteran trees: advice for making planning decisions sets out minimum distances for development which ensures protection of tree roots. However, ancient woodlands are ground water dependent. Hence, ancient woodlands within 500m metres of proposed sites were obtained from the Ancient Woodland Inventory Natural England dataset to ensure that all potential impacts, including hydrological impacts, could be taken into account³. Potential remnant ancient woodlands that were accessible on-site or close by that were too small to be included in the national dataset (less than 2ha) were identified, based upon the presence of potential indicator species and historic maps (Ordnance Survey First Edition and Chapman and Andre 1777).

A simplified site assessment for veteran trees was devised, based upon the [Veteran Trees Initiative Specialist Survey Method](#). Ecological site assessors identified and recorded the species and location of potential veteran and ancient trees on-site and their on-site descriptions and photographic evidence was reviewed by qualified arboriculturists. A veteran tree was defined as containing four of the following five elements:

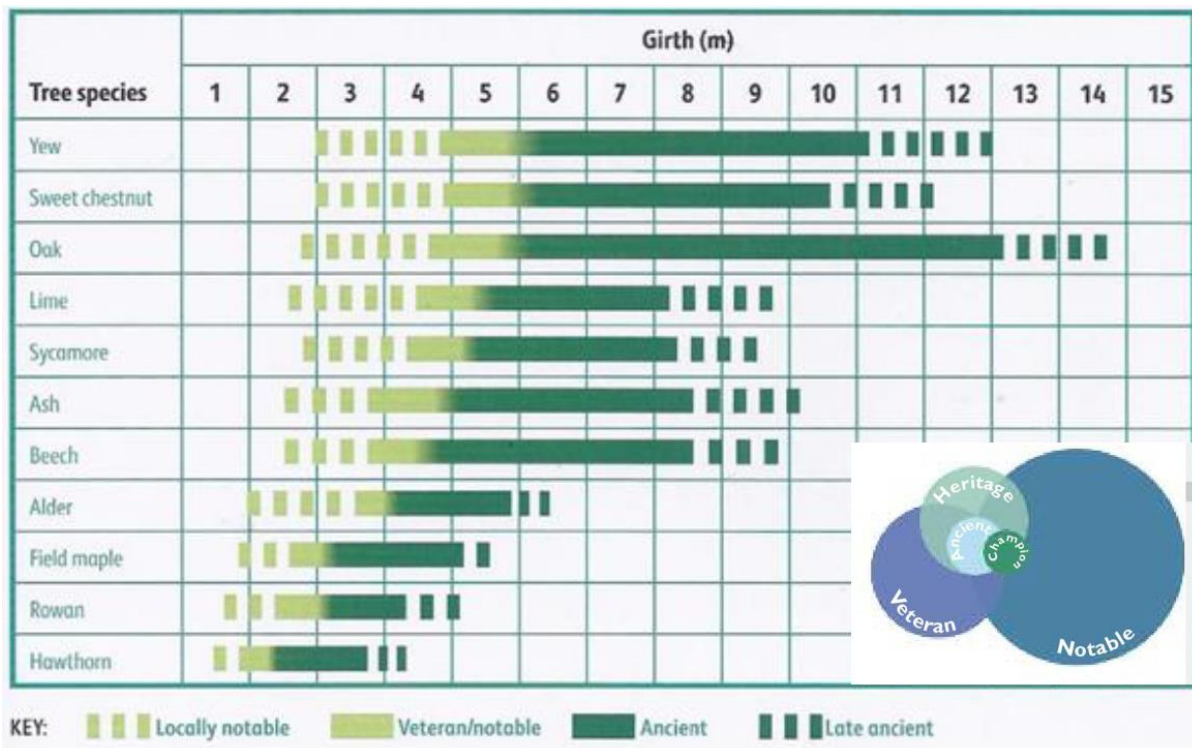
- Deadwood
- Rot sites
- Rot holes
- Fungi
- Hollowing

The presence of three features indicates a candidate veteran, which if surveyed at a different time of year might be considered a veteran tree. Candidate veterans are given the same weight as veterans, on the basis that they are likely to become the next generation of veterans.

With respect to ancient trees, the girth of the tree was measured at 1.3m above ground level, in line with the veteran tree methodology. The image below in Table 1 (Girth in relation to age and developmental classification of trees (Lonsdale, D. (ed.) (2013)) provides guidance as to which girth size is required for the different tree species to be considered ancient. Other trees not identified as veterans or candidate veterans by the ecologists may still have value relevant to planning applications. They may still be considered of material value in the planning process.

³ Practical Guidance -Planning for Ancient Woodland -Planners' Manual for Ancient Woodland and Veteran Trees July 2019 (Woodland Trust): <https://www.woodlandtrust.org.uk/media/51656/planners-manual-for-ancient-woodland.pdf>

Table 1: Girth in relation to age and developmental classification of trees (Lonsdale, D. (ed.) (2013). Ancient and other veteran trees: further guidance on management. The Tree Council, London 212pp.)



Proximity to locally designated sites, e.g. Local Wildlife Sites and Special Roadside Verges, was also assessed. Local Wildlife Sites and Special Roadside Verges are identified against a set of habitat and species criteria. The desk search included all Local Wildlife Sites and Special Roadside Verges within 1km from the proposed mineral sites, using a scaled approach, with the greatest impacts considered likely to be where the proposed site was on or adjacent to one of more of these locally designated sites, as well as consideration of the sensitivity of the habitat type.

In addition, proximity to Priority habitats, as listed under the Natural Environment and Rural Communities Act 2006 and set out within the NPPF, was considered. Hedgerows, lakes, and ponds mapped using OS Mastermap were ‘ground-truthed’ on site and Priority habitats recorded.

The setting of the proposed minerals sites in the context of the surrounding landscape and connectivity to existing habitats is an important consideration for site assessments. Information about the importance of the proposed site’s ecological setting was gathered using all of the ecological datasets listed within the Table 3 below -including use of aerial imagery- as well as the on-site assessment. This includes context within ‘Risk Zones’ for Great Crested Newts.

A Local Nature Recovery Network is currently being developed for Essex and is likely to be in place as the Essex Minerals Local Plan review unfolds. While it is

anticipated it may be available during consideration of Preferred Sites, it is not currently at the stage where it can be used.

The impacts of minerals workings upon all of the above have been considered and a RAG sensitivity grade attributed to each proposed mineral site in accordance with the Biodiversity RAG Sensitivity Grade Table (Table 2) below.

Table 2: Biodiversity RAG Sensitivity Grade Table

RAG Sensitivity Grade				
RED	RED-AMBER	AMBER	AMBER-GREEN	GREEN
<p>Ecological impacts are likely to be serious and mitigation to make the Site acceptable would be difficult.</p> <p>The Site is within/ or adjacent to an internationally or nationally designated habitat and mitigation to make the Site acceptable would be difficult.</p> <p>Subject to plan-level Habitats Regulations Assessment, the adverse effects to the integrity of internationally important wildlife sites would be unavoidable and mitigation to make the Site acceptable would be difficult.</p> <p>The Site could have serious impacts upon irreplaceable habitats.</p>	<p>Ecological impacts are likely to be major and is likely to require high levels of mitigation to make the Site acceptable.</p> <p>The Site could have a major impact upon international or national designations and is likely to require high levels of mitigation to make the Site acceptable.</p> <p>Subject to plan-level Habitats Regulations Assessment, the adverse effects on the integrity of internationally important wildlife sites could be avoidable with significant levels of appropriate mitigation.</p> <p>The Site could have major impacts upon irreplaceable habitats.</p>	<p>Ecological impacts are likely to be moderate and is likely to require medium levels of mitigation to make the Site acceptable.</p> <p>The Site could have a moderate impact upon international or national designations and is likely to require medium levels of mitigation to make the Site acceptable.</p> <p>Subject to plan-level Habitats Regulations Assessment, the adverse effects on the integrity of internationally important wildlife sites could be avoidable with appropriate mitigation.</p> <p>The Site could have moderate impacts upon irreplaceable habitats.</p>	<p>Ecological impacts are likely to be minor and may require low levels of mitigation to make the Site acceptable.</p> <p>The Site could have a minor impact upon international or national designations and is likely to require low levels of mitigation to make the Site acceptable.</p> <p>Subject to plan-level Habitats Regulations Assessment, the adverse effects on the integrity of internationally important wildlife sites are likely to avoidable.</p> <p>The Site could have minor impacts upon irreplaceable habitats.</p>	<p>There is likely to be no ecological impact that requires mitigation.</p> <p>The Site is not likely to have any impact upon international or national designations that requires mitigation.</p> <p>Subject to plan-level Habitats Regulations Assessment, there are no predicted adverse effects on the integrity of internationally important wildlife sites.</p> <p>The Site would have no impacts upon irreplaceable habitats.</p>

RAG Sensitivity Grade				
RED	RED-AMBER	AMBER	AMBER-GREEN	GREEN
	The Site could have a serious impact upon the natural environment including local designations and Priority habitats and species.	The Site could have a major impact upon the natural environment including local designations and Priority habitats and species.	The Site could have a moderate impact upon the natural environment including local designations and Priority habitats and species.	The Site is 'likely' to have no impacts on upon the natural environment, including local designations and Priority habitats and species that requires mitigation.

Table 3: Ecological Datasets and Buffers used with Summary of Rationales

Dataset	Source	Version Date	Rationale for use in RAG Sensitivity Grade	Buffer	Rationale for Buffer
Sites of Special Scientific Interest	Natural England	15/09/2022	Nationally important site with statutory protection.	Natural England Impact Risk Zone SSSI buffer for minerals developments. Additional consideration of potential impact pathway via water courses.	Natural England Impact Risk Zones ⁴ for SSSIs. Potential for impacts on groundwater dependent habitats. Potential pollution pathway between the mineral site and SSSI.
Special Protection Area	Natural England	29/06/2021	Internationally important site with statutory protection.	See SSSI	See SSSI
Special Areas of Conservation	Natural England	28/02/2022	Internationally important site with statutory protection	See SSSI	See SSSI
Ramsar	Natural England	02/10/2020	Internationally important site with statutory protection	See SSSI	See SSSI
National Nature Reserve	Natural England	15/09/2022	National designation	See SSSI	See SSSI

⁴ 4 Natural England's Impact Risk Zones for Sites of Special Scientific Interest, User Guidance, V4.0 (27/04/2021)

Dataset	Source	Version Date	Rationale for use in RAG Sensitivity Grade	Buffer	Rationale for Buffer
Marine Conservation Zones	Natural England	31/05/19	National designation with statutory protection.	2,000 metres. Proximity to a watercourse that feeds into a Marine Conservation Zone.	Potential pollution pathway between the mineral site and MCZ.
Local Nature Reserve	Natural England	16/09/2022	Local designation with statutory protection.	500 metres	Professional judgement
Ancient Woodland	Natural England	15/09/2022	Irreplaceable habitat. Robust protection in national policy and via local planning system.	500 metres	Ancient woodland, ancient trees, and veteran trees: advice for making planning decisions (Government Standing Advice). Professional judgement.
Local Wildlife Site (LoWS)	District authorities and Essex Field Club	Various.	County-level important site with non-statutory protection via the local planning system. Typically underpinned by Section 41 habitats.	1km	Professional judgment and proximity to Local Wildlife Sites, using a scaled approach based upon distance from site. Consideration of potential pollution pathways and prevailing wind direction. Potential for impacts on groundwater dependent habitats. On or adjacent to LoWS most likely to create an impact.
Special Roadside Verges (SRV)	Essex County Council	August 2022	County-level important site with non-statutory protection via the local planning system. Often contains rare plant species. Many overlap with LoWS.	1km	Professional judgment and proximity to Local Wildlife Sites, using a scaled approach based upon distance from site. Consideration of potential pollution pathways and prevailing wind direction. Potential for impacts on groundwater dependent habitats.
Priority Habitat	Natural England		Section 41 habitats. These also typically	1km	Quality and coverage of this national dataset in Essex is highly variable

Dataset	Source	Version Date	Rationale for use in RAG Sensitivity Grade	Buffer	Rationale for Buffer
Inventory for England			underpin Local Wildlife Sites.		so it was ground-truthed during site assessments. Professional judgment and proximity to Local Wildlife Sites, using a scaled approach based upon distance from site. Consideration of potential pollution pathways and prevailing wind direction. Potential for impacts on groundwater dependent habitats. On or adjacent to Priority habitats most likely to create an impact.
Great Crested Newt Risk Zones	Natural England		Nationally agreed strategic approach to a European Protected Species. Used to view proposed sites within the context of landscape and connectivity of existing habitat.	None. Within or not within Amber Zone.	Highlighted if within Amber Zone but not if within Green Zone. There are no red zones within the study area.
OS Mastermap Water Network Layer	Ordnance Survey	01/2022	Used to enable consideration of potential pollution pathways for water quality and quantity.		N/A
Aerial photography	Google imagery	Various. Most recent available	Used to view proposed sites within the context of landscape and connectivity of existing habitat.	N/A	N/A
Ordnance Survey First Edition (6 inch)	Ordnance Survey	1880	Used to as indication as to whether woodlands might be ancient	N/A	N/A this

Dataset	Source	Version Date	Rationale for use in RAG Sensitivity Grade	Buffer	Rationale for Buffer
			but are too small to have been included on the Natural England maps.		
Map of the County of Essex 1777 by John Chapman and Peter Andre	https://map-of-essex.uk/map_of_essex_v2/	1777	Used as an indication as to whether woodlands might be ancient but are too small to have been included on the Natural England maps.	N/A	N/A
Environment Agency Operational Water Management Catchment	Essex Combined Management Catchment Catchment Data Explorer		Used when considering cumulative impacts (not included in RAG Sensitivity Grade)	N/A	N/A

Cumulative impact

The potential for greater impacts to habitats and species resulting from more than one quarry, based upon the ecological mitigation hierarchy (set out in paragraph 175 of the NPPF) are identified in this section. “*Cumulative effects can result from individually insignificant but collectively significant actions taking place over a period of time or concentrated in a location*”⁵. Consideration is given to the potential for minerals sites to give rise to effects due to their proximity in time and space which might create additive or incremental effects when added together with other existing, allocated and proposed quarries. The scale of potential impacts may depend upon the size of the individual quarries in the vicinity and the number of years that they have been operating. Cumulative impacts are not included within the RAG grade.

The greater potential to alter the water table in the long-term through large or multiple minerals sites could particularly affect ground water dependent habitats. Greater impacts to statutory sites and ancient woodlands will be considered to be likely where quarrying would ultimately result in extraction on more than one boundary, even if this is not at the same time, as there is a greater likelihood of permanent or long-term changes to the water table in the area as a result of the quarrying.

⁵ CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland, Version 1.2 - Updated April 2022 [ECIA-Guidelines-2018-Terrestrial-Freshwater-Coastal-and-Marine-V1.2-April-22-Compressed.pdf \(cieem.net\)](#)

Cumulative impacts may also occur through the simultaneous extensive loss of habitats, including farmland, and by reducing networks of habitats, preventing the ability of species to move across the landscape.

Where more than one mineral site is situated along the same watercourse, or in the same Operational Water Management Catchment, the potential for effects on water-sensitive habitats and species resulting from changes to water quality and quantity nearby and downstream is considered likely to be greater. Lowering the water table over a wider area could be compounded and/or longer lasting with phasing of sites.

The working of minerals sites should be phased to control impacts, and sites progressively restored in accordance with a masterplan covering all parcels of land that are eventually allocated. Due to the potential for an expected exponential rise in impacts, the operation of more than one minerals site within an area of the County may require a greater consideration for the Essex Minerals Local Plan such as use of a coordinated phased approach of working across different minerals sites and operators, with greater levels of mitigation and enhancement during operations and through restoration schemes. The greatest impacts are likely to be located where there are a large amount of designated sites or irreplaceable habitats (by geographical size or number) in close proximity, or within the same water catchment area. However, dewatering of a single designated site which is water sensitive could result in irreversible impacts. Any development would need to be beyond scientific doubt that Adverse Effects on the Integrity of Habitats sites can be avoided, to the satisfaction of Natural England.

In addition, the potential for cumulative impacts with major developments and Nationally Significant Infrastructure Projects is considered in the assessment, for example, major roads, housing, or energy schemes (e.g. solar, wind and ports), many of which will be permanent or long-term. These schemes may be permitted by other authorities and therefore mitigation e.g. through sequencing may not be possible. Indeed, some of the mineral sites will be driven by the need for construction materials for these schemes. Impacts may be similar to those set out above and would vary according to the type and size of scheme. For example, smothering of vegetation by creation of dust, disturbance of species from noise and lights, particularly during construction phases of other schemes; direct loss of habitats, water quality and quantity impacts to surface water, groundwater, and watercourses; barriers to species movement, particularly when using habitat networks and loss of farmland habitats.

Where a minerals site is situated near to a sensitive receptor such as a statutory site, ancient woodland, along the same watercourse, or in the same valley as other proposed major development, the potential for impacts are considered likely to be greater.

As stated above, the potential for in combination effects with other plans and projects to Habitats sites will be considered in more detail within the stand-alone plan-level Habitats Regulations Assessment for the Essex Minerals Local Plan.

References

- Natural England Designated Sites information: <https://designatedsites.naturalengland.org.uk/>
- Maldon District Approved Local Development Plan 2014-2029: [web APPROVED LDP 12 OCTOBER.pdf](web_APPROVED_LDP_12_OCTOBER.pdf)
- Braintree Local Plan 2013-2033 Local Plan S2 Maps 1 Braintree - 2 Witham Adopted 25th July 2022: <https://www.braintree.gov.uk/downloads/file/3548/s2-maps-1-braintree-2-witham-adopted>
- Colchester Borough Local Plan 2017 – 2033 Section 2 Adopted July 2022 Policies Maps: <https://cbccrmdata.blob.core.windows.net/noteattachment/Policy%20Maps%20-%20August%202022-compressed.pdf>
- Tendring District Local Plan 2013-2033 and Beyond Section 2, Adopted 25th January 2022: [LOCAL PLAN SECTION 2 \(tendringdc.gov.uk\)](LOCAL PLAN SECTION 2 (tendringdc.gov.uk))
- Chelmsford Local Plan Adopted 27 May 2020 (2013 -2036): <chelmsford-local-plan-may-2020-includes-a1-plans.pdf>
- Epping Forest District Council Local Plan 2011-2033 Policies Map <https://www.eppingforestdc.gov.uk/wp-content/uploads/2023/03/Policies-Map-200323.pdf>
- Uttlesford District. The emerging Uttlesford Local Plan was not used as is not sufficiently progressed to have any site allocations.
- Place Services (2023) Tendring Colchester Borders Garden Community Development Plan Document Submission Version Plan Habitats Regulations Assessment including Appropriate Assessment: [03a17d7c5a1396c3f2b2804781945438_TCBGC_HRA_including Appropriate Assessment.pdf \(amazonaws.com\)](03a17d7c5a1396c3f2b2804781945438_TCBGC_HRA_including_Appropriate_Assessment.pdf (amazonaws.com))
- A12 Chelmsford to A120 widening scheme (junctions 19 to 25) (National Highways): [A12 Chelmsford to A120 widening scheme \(junctions 19 to 25\) - National Highways](A12 Chelmsford to A120 widening scheme (junctions 19 to 25) - National Highways)
- Essex County Council planning applications: [Minerals and waste planning \(essex.gov.uk\)](Minerals and waste planning (essex.gov.uk))
- Chelmsford North East bypass (Essex County Council / Essex Highways): <https://www.essexhighways.org/highway-schemes-and-developments/highway-schemes/chelmsford-schemes/chelmsford-north-east-bypass>

Appendix D

Historic Buildings Detailed RAG Assessment Methodology and Results

Introduction

These assessments consider the impact on the significance of built heritage assets, including listed buildings, conservation areas and Registered Parks and Gardens. Non-designated heritage assets identified on Local Lists by the relevant LPAs will also be considered. The assessments will consider direct impacts to heritage assets (physical changes to the fabric of heritage assets) and indirect impacts through changes within their settings, however, it is envisaged that direct impacts will be uncommon. To align with the National Planning Policy Framework, the impacts are assessed in terms of the harm caused to the significance of heritage assets; this harm can be 'substantial' (serious impact in which the significance is entirely lost or very much reduced) or 'less than substantial.'

Methodology

The policy context for the assessments includes:

- Planning (Listed Buildings and Conservation Areas) Act 1990: in particular, Sections 66 and 72 which require the preservation of the significance and settings of listed buildings to be considered in any planning decisions, and the preservation or enhancement of the character or appearance of conservation areas (where there are direct impacts on conservation areas)
- NPPF 2021: Chapter 16 *Conserving and enhancing the historic environment*
- NPPG: *Historic environment*
- Historic England Advice Note 3: The Historic Environment and Site Allocations in Local Plans (HEAN3)
- Historic England Advice Note 12: Statements of Heritage Significance: Analysing Significance in Heritage Assets (HEAN12)
- Historic Environment Good Practice Advice in Planning Note 3 (Second Edition): The Setting of Heritage Assets (GPA3)

The methodology is based on the stepped processes set out within HEAN3 and GPA3 and will consist of:

1. Identify which heritage assets and their settings are affected by the potential site allocation (desk based using GIS data, aerial photography, historic mapping and list entries, some sites may require a site visit).

2. Understand what contribution the Site (in its current form) makes to the significance of the heritage asset(s) including assessing the degree to which setting make a contribution to the significance of the heritage asset(s) or allows significance to be appreciated (considering an asset's archaeological interest, architectural and artistic interest, and historic interest).
3. Identify what impact the Site might have on that significance or on the ability to appreciate it.
4. Explore ways to maximise enhancement and avoid or minimise harm.

Step 4 will be conducted at a high-level and may include a recommendation for a Heritage Impact Assessment to fully understand the effect on the significance and settings of the heritage assets and indicate potential mitigation measures.

The assessment will conclude that there is either no impact on the significance of the heritage assets affected or that there is harm to their significance. Where harm is found, it will be identified with reference to the NPPF paragraphs 201 and 202 in regard to 'substantial' harm and 'less than substantial' harm. Paragraph 203 will be applied for non-designated heritage assets. In accordance with paragraph 018 of the NPPG, within the 'less than substantial' category the extent of harm will be clearly articulated. The extent of harm will be identified on a scale of lowest, low, mid, high, and highest which will correspond to the RAG sensitivity grades in the table below.

Sensitivity Grade	Description
Red	The impact is likely to be serious, amounting to substantial harm or the HIGHEST or HIGH level of less than substantial harm to the significance of heritage assets, and mitigation to make the Site acceptable would be difficult.
Red/Amber	The impact is likely to be major, amounting to a MID level of less than substantial harm to the significance of heritage assets, and is likely to require high levels of mitigation to make the Site acceptable.
Amber	The impact is likely to be moderate, amounting to a LOW level of less than substantial harm to the significance of heritage assets, and is likely to require medium levels of mitigation to make the Site acceptable.
Amber/Green	The impact likely to be is minor, amounting to the LOWEST level of less than substantial harm, and may require low levels of mitigation to make the Site acceptable.
Green	There is likely to be no impact that requires mitigation.

Appendix E

Archaeology Detailed RAG Assessment Methodology and Results

Introduction

These assessments consider the significance of heritage assets that may be impacted by the proposals. Heritage assets may include Scheduled Monuments, Registered Parks and Gardens, non-designated archaeological sites, Palaeolithic and palaeoenvironmental deposits, industrial archaeology, and built heritage structures. The assessments will consider the significance of direct impacts (physical changes to heritage assets) and indirect impacts through changes within their settings.

Methodology

The policy context for the assessments includes:

- The Ancient Monuments and Archaeological Areas Act 1979 provides the legislative framework for protection of Scheduled Monuments across Great Britain.
- NPPF 2021: Chapter 16 *Conserving and enhancing the historic environment*
- NPPG: *Historic environment*
- Historic England Advice Note 3: The Historic Environment and Site Allocations in Local Plans (HEAN3)
- Historic England Advice Note 12: Statements of Heritage Significance: Analysing Significance in Heritage Assets (HEAN12)
- Historic Environment Good Practice Advice in Planning Note 3 (Second Edition): The Setting of Heritage Assets (GPA3)

The methodology will consist of:

1. A detailed assessment of the Essex Historic Environment Record supported by appropriate cartographic research which will identify heritage assets that are affected by the potential site allocation (desk based using GIS data, aerial photography, historic mapping and list entries, some sites may require a site visit).
2. Assessment of the impact that the Site allocation will have on the heritage asset.

3. Specification of what mitigation requirements would be required for pre-application and/or post application stage.
4. Identification of the appropriate RAG grade.

Sensitivity Grade	Description	Possible Mitigation
Red	The impact or issue is so severe that information currently available suggests that a serious impact will result from the development of the Site which will be difficult to mitigate to an acceptable level.	Mitigation in order to make the Site acceptable is difficult.
Red-Amber	The impact or issue is major but this may be made acceptable by mitigation.	Likely to require high levels of mitigation in order to make the Site acceptable.
Amber	The impact or issue is moderate and this is likely be made acceptable by mitigation.	Likely to require medium levels of mitigation in order to make the Site acceptable.
Amber-Green	The impact or issue is minor and if mitigation is required to make the impact acceptable, this can easily be provided.	May require low levels of mitigation in order to make the Site acceptable.
Green	There are no impacts or issues that require mitigation.	Mitigation not required.

Appendix F

Flooding Detailed RAG Assessment Methodology and Results

Introduction

The purpose of the Flood Risk RAG assessment is to evaluate the impact of flooding on the Site; including fluvial, pluvial and groundwater, in accordance with Paragraph 159 of the National Planning Policy Framework (NPPF).

Methodology

The methodology used in the assessment of sites, and for the purposes of the Mineral Planning Authority's (MPA) site selection process, has been derived from that of the Strategic Flood Risk Assessment (SFRA). The SFRA adopts a three-staged 'Red-Amber-Green' (RAG) process, as required, ranging from 'low-medium-high' risk. This has been expanded into a five-staged RAG process to allow additional consideration of possible mitigation, 'water compatible' development (within Technical Guidance to the National Planning Policy Framework (2012) – Table 2: Flood risk vulnerability classification), and to allow the detailed comparison of each potential site's merits and demerits. For reference, the aforementioned Table 2 considers sand and gravel workings as 'water compatible' and other sites for mineral working and processing as 'less vulnerable'. Each site's principal submitted use only is considered in regards to 'water compatibility' and it should be acknowledged that ancillary development on site may not fall under this category. Any such issues would be more appropriately addressed at the development management stage.

Within the SFRA, the appraisal of sites refers to flood risk in the form of 'Annual Exceedance Probability' (AEP) to comply with Environment Agency (EA) best practice. AEP details the risk of rainfall and flood events happening each year as a percentage, with a 1 in 20-year storm becoming a 5% AEP event and a 1 in 100-year storm a 1% AEP event. Knowledge of such events per watercourse allows the SFRA, and this assessment, to assess sites accurately in regard to surface water flood risk.

The following sources and actions have been employed within the SFRA, and therefore also this assessment, to ascertain the categories of risk (further details on the data utilised to undertake this can be found within the SFRA):

- Existing flood maps based on a range of national flood modelling data to determine the flood risk grade for allocated sites, as well as GIS analysis using this data set to identify the percentage area of each site falling within each flood zone.

- An assessment against surface water flood risk, fluvial and groundwater flood risk, using mapping / GIS software. The assessment identifies 'risk bandings' to each flood source, with additional details on each specific risk and the impacts to each site.
- Site specific mapping in order to identify recommendations to reduce flood risk for all sites categorised as medium and high-risk within the SFRA.

Related Essex MLP expectation	Opportunity /Constraint	RAG Sensitivity Grade					Sources
		RED	RED-AMBER	AMBER	AMBER-GREEN	GREEN	
<i>Policy Wording (Taken from Adopted Essex Minerals Local Plan 2014)</i>							
<p>Policies:</p> <p>Policy S3- Climate change</p> <p>Applications for minerals development shall demonstrate how they have incorporated effective measures to...ensure effective adaptation and resilience to future climatic changes, having regard to:</p> <p>3. National and local principles/ design standards for Sustainable Drainage Systems, including measures to enhance on-site water efficiency and minimise flood impacts both on-site and in relation to adjacent land and 'downstream' land-uses,</p> <p>4. On-site resilience to unexpected climatic events,</p> <p>5. The implications of coastal change, where relevant, and,</p> <p>6. The potential benefits from site restoration and after-use schemes for biodiversity and habitat creation, flood alleviation, and provision of living carbon sinks.</p> <p>Policy S12- Mineral Site Restoration and After-Use</p> <p>5. Where appropriate, proposals shall demonstrate the best available techniques to ensure that:</p> <p>c) Hydrological and hydro-geological conditions are preserved, maintained, and where appropriate, managed to prevent adverse impacts on the adjacent land's groundwater conditions and elsewhere</p> <p>d) Flood risk is not increased</p>	<p>Flood Risk</p> <p><i>Key considerations:</i></p> <p>The NPPF and NPPG regarding the vulnerability of development types to flooding and also which development is considered 'water compatible.'</p> <p>The findings of, and alignment with, the Plan's SFRA (2023) in identifying the level of risk of flooding in regard to surface water, groundwater, and fluvial flooding.</p>	<p>The Site is pre-dominantly (i.e. 50% or over) within FRZ2 or FRZ3 and has high flood risk for BOTH surface water and groundwater (in SFRA) and is not 'water compatible' development.</p> <p>Mitigation to make the Site acceptable would be difficult.</p>	<p>The Site is pre-dominantly (i.e. 50% or over) within FRZ2 or FRZ3 and has high flood risk for EITHER surface water and groundwater (in SFRA).</p> <p>The Site is likely to require high levels of mitigation to make the Site acceptable.</p>	<p>The Site is in part (i.e. 0-49%) within FRZ2 or FRZ3 and / or has high – medium flood risk for EITHER surface water or groundwater (in SFRA)</p> <p>The Site is likely to require medium levels of mitigation to make the Site acceptable.</p>	<p>The Site is in part (i.e. 0-49%) within FRZ2 or FRZ3, and is of low risk of BOTH surface water and groundwater (in SFRA)</p> <p>The Site may require low levels of mitigation to make it acceptable.</p>	<p>The Site is entirely within FRZ1 and has a low flood risk for BOTH surface water and groundwater (in SFRA).</p> <p>The Site is likely to have no impact on flood risk that requires mitigation.</p>	<ul style="list-style-type: none"> • Existing flood maps (surface water, fluvial, and groundwater flood risk - based on a range of national flood modelling data) • GIS analysis (to identify the percentage area of the sites falling in each flood zone). • The SFRA • Technical Guidance to the National Planning Policy Framework (2012) – Table 2: Flood risk vulnerability classification

Related Essex MLP expectation	Opportunity /Constraint	RAG Sensitivity Grade					
<i>Policy Wording (Taken from Adopted Essex Minerals Local Plan 2014)</i>		<i>RED</i>	<i>RED-AMBER</i>	<i>AMBER</i>	<i>AMBER-GREEN</i>	<i>GREEN</i>	<i>Sources</i>
Proposals shall demonstrate that there will not be an unacceptable adverse impact on groundwater conditions, surface water drainage and the capacity of soils for future use.							

Appendix G

Transport Detailed RAG Assessment Methodology and Results

Introduction

The Highway Authority will protect the safety and efficiency of the highway network by ensuring that minerals sites that generate a significant number of HGV movements are located in close proximity to the Main Road network, this being Trunk Roads, Strategic Routes or Main Distributors or are connected to such routes by Secondary Distributor roads or other roads that are suitable, or can be made suitable to accommodate HGVs

Methodology

This is an assessment of the location of the Site and access relative to the routes identified in Essex County Council's Development Management Route Hierarchy. (Development Management Policies, February 2011) to ensure that the road network from which access is proposed is suitable for use by Heavy Goods Vehicles (HGVs) or can be appropriately mitigated by way of improvement to accommodate HGVs.

The following hierarchy of preference for transportation by road shall be applied:

- (i) Access to a suitable existing junction with the main road network, via a suitable section of an existing road, as short as possible, without causing a detrimental impact upon the safety and efficiency of the network.
- (ii) Where (i) above is not feasible, direct access to the main road network involving the construction of a new access/ junction when there is no suitable existing access point or junction.
- (iii) (iii) Where access to the main road network in accordance with (i) and (ii) above is not feasible, road access via a suitable existing road prior to gaining access onto the main road network will exceptionally be permitted, having regard to the scale of the development, the capacity and form of the road and an assessment of the impact on road safety

The **main road network** for the purposes of this assessment consists of Strategic Routes and Main Distributors in the Essex County Council's Development Management Route Hierarchy.

Secondary Distributor routes and all other routes vary in their form across the County, in terms of their width and alignment and their ability to accommodate regular use by Heavy Goods Vehicles. Therefore, where use of a Secondary Distributor route or any

other route is proposed this will fall under (iii) Amber below and where mitigation is required Red/Amber and Red.

Sensitivity Grade	Description
Red	<p>(iii)Where access to the main road network in accordance with (i) and (ii) below is not feasible, road access via a suitable* existing road prior to gaining access onto the main road network will exceptionally be permitted, having regard to the scale of the development, the capacity and form of the road and an assessment of the impact on road safety</p> <p>(*Mitigation required to make minor road suitable for HGVs is difficult and unlikely to be achieved)</p>
Red/Amber	<p>(iii)Where access to the main road network in accordance with (i) and (ii) below is not feasible, road access via a suitable* existing road prior to gaining access onto the main road network will exceptionally be permitted, having regard to the scale of the development, the capacity and form of the road and an assessment of the impact on road safety</p> <p>(*Mitigation is required to make minor road suitable for HGVs and likely to be achievable)</p>
Amber	<p>(iii)Where access to the main road network in accordance with (i) and (ii) below is not feasible, road access via a suitable* existing road prior to gaining access onto the main road network will exceptionally be permitted, having regard to the scale of the development, the capacity and form of the road and an assessment of the impact on road safety</p> <p>(*No mitigation of minor road is necessary)</p>
Amber/Green	<p>(ii) Where (i) below is not feasible, direct access to the main road network involving the construction of a new access/ junction when there is no suitable existing access point or junction.</p>
Green	<p>(i) Access to a suitable existing junction with the main road network, via a suitable section of an existing road, as short as possible, without causing a detrimental impact upon the safety and efficiency of the network</p>

Appendix H

Access Detailed RAG Assessment Methodology and Results

Introduction

In principle, using professional highway judgement, to what extent can an appropriate access be provided to serve the Site that accords with current highway standards and is deliverable within public highway and/or land in the control of the applicant.

Methodology

Review the information provided by the Site promotor, carry out a desktop study using Google Earth/Streetview or similar and Map Essex and a undertake site visit if a new site or if site is unknown to the Strategic Development Engineer.

- Can the proposed site access provide visibility splays, including forward visibility splays to accord with the speed limit in force for the section of road serving the application site, having regard to and vertical and horizontal road alignment.
- Can the proposed site access accommodate or be improved to accommodate the simultaneous entry and exit of HGVs.
- Can the carriageway fronting the application site accommodate an appropriate junction arrangement, typically a ghost island right turn lane to serve the Site.

RAG grading using the table below is an overall assessment of the ability of the Site access to be improved to comply with the above listed requirements and the extent to which mitigation is required to achieve this.

Sensitivity Grade	Description
Red	The access is not acceptable in its current form and it is unlikely that mitigation is possible to make the Site acceptable.
Red/Amber	The access is not acceptable in its current form and is likely to require high levels of mitigation to make the Site acceptable.
Amber	The access is not acceptable in its current form and is likely to require medium levels of mitigation to make the Site acceptable.
Amber/Green	The access is not acceptable in its current form and is likely to require low levels of mitigation to make the Site acceptable.
Green	The access is acceptable and is unlikely to require mitigation.

Appendix I

Public Rights of Way, Geo-Environmental, Hydrology, Hydrogeology & Drainage, Air Quality, Soil Quality, Services & Utilities, Health & Amenity, Green Belt, and Airport Safeguarding Zones RAG Assessment Methodology and Results

Introduction

The purpose of these RAG assessments are to evaluate the impact of the Site on Public Rights of Way (PRoW), geological features, hydrology, hydrogeology & drainage, air quality, soil quality, services & utilities, health & amenity, Green Belt land, and airport bird strikes.

Methodology

This table sets out the methodology for an assessment of the Sites promoted for allocation as part of the review of the Essex Minerals Local Plan. The methodology involves deriving a 'Red-Amber-Green' (RAG) grade for the Site's performance against criteria which determine the suitability of locations for such sites. The methodology has been devised to reflect the existing Essex Minerals Local Plan (adopted 2014) and the table shows how the approach to grading relates to policies in the adopted Essex Minerals Local Plan.

Related Essex MLP expectation	Opportunity/Constraint	RAG Sensitivity Grade					
<i>Policy Wording (Taken from Adopted Essex Minerals Local Plan 2014)</i>		RED	RED-AMBER	AMBER	AMBER-GREEN	GREEN	Sources
<p>Policies:</p> <p>Policy S12 Mineral site restoration and after use Proposals for minerals development will be permitted provided that it can be demonstrated that the land is capable of being restored at the earliest opportunity to an acceptable environmental condition and beneficial after-uses, with positive benefits to the environment, biodiversity and/ or local communities.</p> <p>S12 point 5. Where appropriate, proposals shall demonstrate the best available techniques to ensure that:</p> <ul style="list-style-type: none"> Sub point e): Important geological features are maintained and preserved <p>Policy DM1 Development Management Criteria — Proposals for minerals development will be permitted subject to it being demonstrated that the development would not have an unacceptable impact, including potential cumulative issue with other developments</p> <ul style="list-style-type: none"> DM1 Point 12: The natural and geological 	<p>Geo-environmental</p> <p><i>Key considerations:</i></p> <ul style="list-style-type: none"> Proximity to Local Geological Sites (LoGS). 	<p>The Site is in a LoGS and therefore is likely to have a serious impact on the geological environment. Mitigation to ensure that geological features are preserved and maintained to an acceptable level would be difficult.</p>	<p>n/a</p>	<p>The Site is less than or equal to 20m from a LoGS and therefore is likely to have a moderate impact on the geological environment. The Site is likely to require medium levels of mitigation to ensure that geological features are preserved and maintained to an acceptable level.</p>	<p>n/a</p>	<p>The Site is more than 20m from a LoGS and therefore is likely to have no impact on the geological environment such that no mitigation will be required as geological features will be preserved and maintained.</p>	<ul style="list-style-type: none"> Promoter of the Site Local Geological Sites (LoGS)

Related Essex MLP expectation	Opportunity/Constraint	RAG Sensitivity Grade					
<i>Policy Wording (Taken from Adopted Essex Minerals Local Plan 2014)</i>		RED	RED-AMBER	AMBER	AMBER-GREEN	GREEN	Sources
environment (including biodiversity and ecological conditions for habitats and species)							
<p>Policies:</p> <p>Policy S12 Mineral site restoration and after use Proposals for minerals development will be permitted provided that it can be demonstrated that the land is capable of being restored at the earliest opportunity to an acceptable environmental condition and beneficial after-uses, with positive benefits to the environment, biodiversity and/ or local communities.</p> <p>5. Where appropriate, proposals shall demonstrate the best available techniques to ensure that:</p> <ul style="list-style-type: none"> Point c): Hydrological and hydro-geological conditions are preserved, maintained, and where appropriate, managed to prevent adverse impacts on the adjacent land's groundwater conditions and elsewhere, <p>Proposals shall demonstrate that there will not be an unacceptable adverse impact on groundwater conditions, surface water drainage and the capacity of soils for future use. Proposals shall also have regard to any relevant Surface Water or Shoreline Management Plans.</p> <p><i>Other Information</i></p> <p><i>Para 5.32 Essex on the whole has a very low vulnerability to water contamination, however, the north-western part of the County has a high vulnerability and is a designated Source Protection Zone. Mineral extraction, processing and aggregate recycling all have the potential to have adverse effects on the quality of groundwater, if not regulated correctly. If mineral extraction takes place in an area of high vulnerability, and de-watering is involved, this can have the direct effect of a loss of water from the local groundwater system, and a loss of storage capacity within the remaining saturated zone. Mineral processing and recycling can involve high usage of water, which can become contaminated and subsequently affect any nearby groundwater sources if not managed properly. When considering proposals for mineral extraction it is expected</i></p>	<p><u>Hydrology, Hydrogeology and Drainage</u></p> <p><i>Key considerations:</i></p> <ul style="list-style-type: none"> Groundwater Source Protection Zone. Groundwater vulnerability Proximity to watercourses and waterbodies. Drinking Water Safeguard Zone (Surface Water) and Drinking Water Protection Areas (Surface Water). 	<p>The Site is within a Drinking Water Safeguard Zone (Surface Water) or Drinking Water Protection Areas (Surface Water), and Groundwater SPZ, and high groundwater vulnerability, and is less than or equal to 200m from a water course or a water body is present within the Site boundary.</p> <p>The Site is likely to have a serious impact on hydrology, hydrogeology and drainage and mitigation to make the Site acceptable would be difficult.</p>	<p>The Site is within a Drinking Water Safeguard Zone (Surface Water) or Drinking Water Protection Areas (Surface Water), and Groundwater SPZ, and unproductive/low/medium groundwater vulnerability, and is less than or equal to 200m from a water course or a water body is present within the Site boundary.</p> <p>Or</p> <p>The Site is within a Drinking Water Safeguard Zone (Surface Water) or Drinking Water Protection Areas (Surface Water), or Groundwater SPZ, and high groundwater vulnerability, and is less than or equal to 200m from a water course or a water body is present within the Site boundary.</p>	<p>The Site is within a Drinking Water Safeguard Zone (Surface Water) or Drinking Water Protection Areas (Surface Water), or Groundwater SPZ, and unproductive/low/medium groundwater vulnerability, and is less than or equal to 200m from a water course or a water body is present within the Site boundary.</p> <p>Or</p> <p>The Site is within a Drinking Water Safeguard Zone (Surface Water) or Drinking Water Protection Areas (Surface Water), and Groundwater SPZ, and unproductive/low/medium groundwater vulnerability, and</p>	<p>The Site is within a Drinking Water Safeguard Zone (Surface Water) or Drinking Water Protection Areas (Surface Water), or Groundwater SPZ, and unproductive/low/medium groundwater vulnerability and is more than 200m from a water course or no water body is present within the Site boundary.</p> <p>Or</p> <p>The Site is not within a Drinking Water Safeguard Zone (Surface Water) or Drinking Water Protection Areas (Surface Water), or Groundwater SPZ, and unproductive/low/medium</p>	<p>The Site is not within a Drinking Water Safeguard Zone (Surface Water) or Drinking Water Protection Areas (Surface Water), there is no Groundwater SPZ, and unproductive/low/medium groundwater vulnerability, and is more than 200m from a water course or no water body is present within the Site boundary.</p> <p>The Site is likely to have no impact on hydrology, hydrogeology, and drainage that requires mitigation.</p>	<ul style="list-style-type: none"> GIS Portal Data DEFRA's MAGIC website. Groundwater / surface water quality (Gov open data) Promoter of the site

Related Essex MLP expectation	Opportunity/Constraint	RAG Sensitivity Grade					Sources
		RED	RED-AMBER	AMBER	AMBER-GREEN	GREEN	
<p>Policy Wording (Taken from Adopted Essex Minerals Local Plan 2014)</p> <p>that due regard will be made to the Water Framework Directive and relevant river basin management plans to ensure that it does not cause deterioration in the status of any water bodies.</p>			<p>The Site is likely to have a major impact on hydrology, hydrogeology and drainage and is likely to require high levels of mitigation to make the Site acceptable.</p>	<p>is more than 200m from a water course or no water body is present within the Site boundary.</p> <p>The Site is likely to have a moderate impact on hydrology, hydrogeology and drainage and is likely to require medium levels of mitigation to make the Site acceptable.</p>	<p>groundwater vulnerability, and is less than or equal to 200m from a water course or a water body is present within the Site boundary.</p> <p>The Site is likely to have a minor impact on hydrology, hydrogeology and drainage and may require low levels of mitigation to make the Site acceptable.</p>		
<p>Policies:</p> <p>Policy DM1 Development Management Criteria — Proposals for minerals development will be permitted subject to it being demonstrated that the development would not have an unacceptable impact, including potential cumulative issue with other developments, upon:</p> <ul style="list-style-type: none"> Point 1: Local amenity (including demonstrating that the impacts of noise levels, air quality and dust emissions, light pollution and vibration are acceptable), 	<p>Air Quality</p> <p><i>Key considerations:</i></p> <ul style="list-style-type: none"> Proximity to Air Quality Management Areas. Impacts on AQMA could be mitigated by conditions and controls. Emissions of concern can be dealt with at planning application stage, if necessary, through use of conditions and controls 	<p>The Site is within an AQMA and is therefore likely to result in a serious impact on air quality. Mitigation to make the Site acceptable would be difficult.</p>	n/a	<p>The Site is less than or equal to 2km from an AQMA and is therefore likely to have a moderate impact on air quality. The Site is likely to require medium levels of mitigation to make it acceptable.</p>	n/a	<p>The Site is more than 2km from an AQMA and therefore is likely to have no impact on air quality that requires mitigation.</p>	<ul style="list-style-type: none"> DEFRA Air Information Resource Promoter of site GIS Portal data
<p>Policies:</p>	<p>Soil Quality</p>	<p>The Site is in Grade 1, and</p>	<p>The Site is in Grade 1 and 2, and BMV</p>	<p>The Site is in Grade 2 and</p>	<p>The Site is in Grade 3 and has</p>	<p>The Site is in Grade 4 or 5 and</p>	<ul style="list-style-type: none"> GIS Portal data

Related Essex MLP expectation	Opportunity/Constraint	RAG Sensitivity Grade					
<i>Policy Wording (Taken from Adopted Essex Minerals Local Plan 2014)</i>		RED	RED-AMBER	AMBER	AMBER-GREEN	GREEN	Sources
<p>Policy DM1 Development Management Criteria — Proposals for minerals development will be permitted subject to it being demonstrated that the development would not have an unacceptable impact, including potential cumulative issue with other developments, upon:</p> <ul style="list-style-type: none"> Point 5: The soil resource from the best and most versatile agricultural land, <p>Policy S12 Mineral site restoration and after use Proposals for minerals development will be permitted provided that it can be demonstrated that the land is capable of being restored at the earliest opportunity to an acceptable environmental condition and beneficial after-uses, with positive benefits to the environment, biodiversity and/ or local communities.</p> <p>5. Where appropriate, proposals shall demonstrate the best available techniques to ensure that:</p> <p>a) Soil resources are retained, conserved, and handled appropriately during operations and restoration,</p> <p>b) In the case of minerals development affecting the best and most versatile agricultural land, the land is capable of being restored back to best and most versatile land</p>	<p><i>Key considerations:</i></p> <ul style="list-style-type: none"> Agricultural Land Classification Grading including best and most versatile (BMV) agricultural land. Where significant development of agricultural land is unavoidable, poorer quality land should be used in preference to higher quality. Grades 1 and 2 are BMV agricultural land. Grade 3 encompasses 3a which is BMV land and Grade 3b which is not BMV land therefore this is classified as having potential for being BMV land. Grades 4 and 5 are not BMV land. 	<p>BMV agricultural land. Therefore, the Site is likely to have a serious impact on soil quality and agricultural land and mitigation to make the Site acceptable would be difficult.</p>	<p>agricultural land. Therefore, the Site is likely to have a major impact on soil quality and agricultural land and is likely to require high levels of mitigation to make the Site acceptable.</p>	<p>BMV agricultural land. Therefore, the Site is likely to have a moderate impact on soil quality and agricultural land and is likely to require medium levels of mitigation to make the Site acceptable.</p>	<p>the potential for being BMV agricultural land. The Site is likely to have a minor impact on soil quality and agricultural land and may require low levels of mitigation to make the Site acceptable.</p>	<p>is not in BMV agricultural land. The Site is likely to have no impact on soil quality and agricultural land that requires mitigation.</p>	<ul style="list-style-type: none"> Promoter of site
<p>Policy S10 Protecting and enhancing the environments and local amenity Applications for minerals development shall demonstrate that:</p> <p>a) Appropriate consideration has been given to public health and safety, amenity, quality of life of nearby communities, and the natural, built, and historic environment,</p> <p>b) Appropriate mitigation measures shall be included in the proposed scheme of development, and</p> <p>c) No unacceptable adverse impacts would arise and;</p> <p>d) Opportunities have been taken to improve/ enhance the environment and amenity</p>	<p>Services and Utilities</p> <p><i>Key considerations:</i></p> <ul style="list-style-type: none"> Sites need sustainable access to utilities. Equally, they should not interfere with any utilities which pass underneath. Mitigation measures will be considered in terms of cost and benefits. 	<p>The Site contains 400kV electricity within the Site boundary.</p> <p>And/or</p> <p>High pressure gas main is within the Site boundary.</p> <p>And/or</p>	<p>The Site contains 132kV electricity within the Site boundary.</p> <p>And/or</p> <p>High pressure gas mains are within 100m of the Site.</p> <p>And/or</p>	<p>The Site contains 33kV electricity within the Site boundary.</p> <p>And/or</p> <p>High pressure gas mains are within 250m of the Site.</p> <p>And/or</p>	<p>The Site contains 11kV and/or low voltage electricity within the Site boundary.</p> <p>And/or</p> <p>Telecoms infrastructure within the Site boundary.</p>	<p>There are no utilities within the Site boundary and no high pressure gas main within 250m of the Site.</p> <p>The Site is likely to have no impact on utilities that requires mitigation.</p>	<ul style="list-style-type: none"> Utility Asset Records Promoter of site

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<i>Policy Wording (Taken from Adopted Essex Minerals Local Plan 2014)</i>		RED	RED-AMBER	AMBER	AMBER-GREEN	GREEN	Sources
	<ul style="list-style-type: none"> Utilities include water, gas, electricity, telecommunications. Utilities with a higher voltage are more difficult to mitigate because the process is costlier, and it takes more time and resources to divert the infrastructure. 	<p>Strategic potable water and/or foul sewers within the Site boundary.</p> <p>The Site is likely to have a serious impact on utilities and mitigation to make the Site acceptable would be difficult.</p>	<p>Intermediate pressure gas mains within the Site boundary.</p> <p>The Site is likely to have a major impact on utilities and is likely to require high levels of mitigation to make the Site acceptable.</p>	<p>Medium pressure and/or low pressure gas within the Site boundary.</p> <p>And/or</p> <p>Potable water distribution mains and local foul sewers within the Site boundary.</p> <p>The Site is likely to have a moderate impact on utilities and is likely to require medium levels of mitigation to make the Site acceptable.</p>	<p>And/or</p> <p>Utilities supplying existing onsite buildings that may be demolished will be disconnected.</p> <p>The Site is likely to have a minor impact on utilities and may require low levels of mitigation to make the Site acceptable.</p>		
<p>Policies:</p> <p>DM1- Development Management Criteria. Proposals for minerals development will be permitted subject to it being demonstrated that the development would not have an unacceptable impact, including potential cumulative issue with other developments, upon:</p> <ul style="list-style-type: none"> Point 1: Local amenity (including demonstrating that the impacts of noise levels, air quality and dust emissions, light pollution and vibration are acceptable) Point 2: The health of local residents adjoining the Site <p>Policy S2 Strategic priorities for mineral developments</p>	<p><u>Health and Amenity</u></p> <p><i>Key considerations:</i></p> <ul style="list-style-type: none"> It should be noted that distances to sensitive receptors have been measured from the Site boundary and not the extraction area. This is due to limited detail on the extraction area boundary for all sites. This includes impact of 	<p>Sensitive receptors including residential buildings, commercial activity/buildings, farm buildings/agricultural structures, public buildings, sports facilities, nurseries/schools, care homes, railway stations outdoor amenities and community</p>	<p>Sensitive receptors including local communities, residents, hospitals, schools, and commercial and agricultural development are less than or equal to 50m but not adjacent (0m) or within the Site boundary. Therefore, the Site is likely to have a major impact on</p>	<p>Sensitive receptors including local communities, residents, hospitals, schools, and commercial and agricultural development are more than 50m but less than or equal to 250m from the Site boundary. Therefore, the Site is likely to have a moderate impact on health and</p>	<p>n/a</p>	<p>Sensitive receptors including local communities, residents, hospitals, schools, and commercial and agricultural development are more than 250m from the Site boundary. Therefore, the Site is likely to</p>	<ul style="list-style-type: none"> GIS Portal Data Promoter of site ECC Officer Workshop

Related Essex MLP expectation	Opportunity/Constraint	RAG Sensitivity Grade					Sources
		RED	RED-AMBER	AMBER	AMBER-GREEN	GREEN	
<p>Policy Wording (Taken from Adopted Essex Minerals Local Plan 2014)</p> <p>The strategic priorities for minerals development are focused primarily on meeting the mineral supply needs of Essex whilst achieving sustainable development. The strategy will promote this by:</p> <ul style="list-style-type: none"> Point 2: Ensuring there are no significant adverse impacts arising from proposed minerals development for public health and safety, amenity, quality of life of nearby communities, and the environment, <p>Policy S10 Protecting and enhancing the environment and local amenity Applications for minerals development shall demonstrate that:</p> <p>a) Appropriate consideration has been given to public health and safety, amenity, quality of life of nearby communities, and the natural, built, and historic environment, b) Appropriate mitigation measures shall be included in the proposed scheme of development, and c) No unacceptable adverse impacts would arise and; d) Opportunities have been taken to improve/ enhance the environment and amenity. Other Information</p> <p>Table 1. Vision for Essex to 2029 – (D) Protecting Amenities and Communities & (I) Communities & (J) Economy and Long-Term High-Quality Environment and Landscape</p> <p>Aims: 3. To promote social inclusion, human health, and well-being.</p> <p>Policy S2 Strategic priorities for mineral developments</p> <p>The strategic priorities for minerals development are focused primarily on meeting the mineral supply needs of Essex whilst achieving sustainable development. The strategy will promote this by:</p> <ul style="list-style-type: none"> Point 2 Ensuring there are no significant adverse impacts arising from proposed minerals development for public health and safety, amenity, quality of life of nearby communities, and the environment, <p>Policies:</p>	<p>noise, dust, vibration, odour, emissions, bioaerosols, illumination, visual intrusion, traffic, quality of life and community and environment wellbeing. The National Planning Policy Framework (NPPF) and the KMWLP state that the adverse impact of minerals and waste development on neighbouring communities should be minimised.</p> <ul style="list-style-type: none"> Consider proximity of sensitive receptors including local communities, residents, hospitals, schools, and commercial and agricultural development whose amenity may be impacted by the development. The ranking is determined by the receptor in closest proximity to the Site. 	<p>facilities are either within or adjacent (0m) to the Site boundary. Therefore, the Site is likely to have a serious impact on health and amenity and mitigation to make the Site acceptable would likely be difficult to achieve.</p>	<p>health and amenity and is likely to require high levels of mitigation to make the Site acceptable.</p>	<p>amenity and is likely to require medium levels of mitigation to make the Site acceptable.</p>	<p>have no impact on health and amenity that requires mitigation.</p>		
			n/a	n/a			

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<i>Policy Wording (Taken from Adopted Essex Minerals Local Plan 2014)</i>		RED	RED-AMBER	AMBER	AMBER-GREEN	GREEN	Sources
<p>DM1- Development Management Criteria. Proposals for minerals development will be permitted subject to it being demonstrated that the development would not have an unacceptable impact, including potential cumulative issue with other developments, upon</p> <ul style="list-style-type: none"> Point 7: Aircraft safety due to the risk of bird strike, <p>Policy S10 Protecting and enhancing the environments and local amenity</p> <p>Applications for minerals development shall demonstrate that:</p> <p>a) Appropriate consideration has been given to public health and safety, amenity, quality of life of nearby communities, and the natural, built, and historic environment,</p> <p>b) Appropriate mitigation measures shall be included in the proposed scheme of development, and</p> <p>c) No unacceptable adverse impacts would arise and;</p> <p>d) Opportunities have been taken to improve/ enhance the environment and amenity.</p> <p><i>Other information</i></p> <p>Potential hazard to aircraft from bird strike</p> <p><i>5.51 Whilst the process of mineral extraction does not in itself attract bird populations, the restoration and after-use of workings may involve the creation of water features, nature reserves and berry producing plants all of which have the potential to attract flocks of birds. This can increase the risk of bird strike for aircraft in the vicinity of airports/ airfields leading to concern about aircraft damage or danger to life.</i></p> <p><i>5.52 There are safeguarding areas around the Stansted and Southend airports which must be taken into account when considering future areas for minerals development and these must be fully considered by potential developers. There are smaller airfields in Essex used for business aviation, recreational flying and military activities where similar safeguarding considerations also apply.</i></p>	<p><u>Airport Safeguarding Zones</u></p> <p><i>Key considerations:</i></p> <ul style="list-style-type: none"> Aircraft are vulnerable to bird strikes, and 80% of all strikes occur on an aircraft's take-off or landing to keep in personally phase of flight, therefore highlighting the necessity for wildlife management on and within proximity of an airfield. Aerodrome administrators are responsible for monitoring bird activity within the relevant radius of the aerodrome. This is to mitigate the bird strike risk to aircraft and be aware what species are in the local area. Many types of development, including large, flat-roofed structures, landfill sites, gravel pit restoration schemes and nature reserves. Restoration has only been incorporated into the Site assessments where a site is in an Airport Safeguarding Zone as how the Site is anticipated to be restored directly affects the RAG assessment. For all the other criteria restoration has not been considered as part of the 	<p>The Site is within an Airport Safeguarding Zone and the nature of the Site is likely to attract birds and therefore is likely to have a serious impact on aircraft safety and increase the risk of bird strike for aircrafts. Mitigation to make the Site acceptable would be difficult.</p>			<p>The Site is within an Airport Safeguarding Zone. However, the nature of the Site is unlikely to attract birds and therefore is likely to have a minor impact on aircraft safety and should not increase the risk of bird strike for aircrafts. The Site may require low levels of mitigation to make it acceptable.</p>	<p>The Site is not within an Airport Safeguarding Zone. The Site is likely to have no impacts on aircraft safety that requires mitigation and will not increase the risk of birdstrikes for aircraft.</p>	<ul style="list-style-type: none"> GIS Portal Data Promoter of site

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Policy Wording (Taken from Adopted Essex Minerals Local Plan 2014)		RED	RED-AMBER	AMBER	AMBER-GREEN	GREEN	Sources
<p>5.53 Proposals for site working, restoration and after-use must give careful consideration to the form of working and landscaping, planting and water features if located within an airport/ aerodrome/ or military safeguarding area.</p> <p>3.209 Mineral workings restored by landfill materials or, particularly, to water uses or wetland habitat, may attract large numbers of birds. These may be a safety hazard to aircraft at sites close to airports and aerodromes because of bird strike. Applicants and the Mineral Planning Authority shall consult airport operators and military base authorities for their views before finalizing restoration and after-use proposals.</p>	<p>Site assessment because the details of restoration may change further on in the process.</p>						
<p>Other Information</p> <p>2.14 The Metropolitan Green Belt extends over substantial parts of the western, central, and southern parts of the County. The stated purpose of the Green Belt is to avert urban sprawl by, for example, limiting the outward spread of London, preventing the joining together of existing settlements and safeguarding the countryside from urban encroachment. The Green Belt prevents urban sprawl by ensuring that land within designated Green Belt boundaries is kept permanently open. The NPPF states that minerals development need not be inappropriate development in the Green Belt so long as the openness of the Green Belt is preserved and proposals do not conflict with the purpose of including land in the Green Belt.</p> <p>3.208 The main purpose of the Green Belt is to prevent urban sprawl and to preserve 'openness.' Whilst this does not prohibit minerals development, proposals would need to be carefully considered in light of their potential impacts, in line with the NPPF and Circular 02/09: The Town and Country Planning (Consultation) (England) Direction 2009. Minerals can only be worked where they occur, and where mineral development is situated in the Metropolitan Green Belt, the whole of the proposal (including after-use) shall comply with national policy.</p>	<p>Green Belt</p> <p><i>Key considerations:</i></p> <ul style="list-style-type: none"> • Within the NPPF is a presumption to consider development within the Green Belt as inappropriate. • Inappropriate development is by definition, harmful to the openness of the Green Belt and should be refused except in very special circumstances. • There are certain types of development which are exceptions to this rule, including mineral development so long as the openness of the Green Belt is preserved and proposals do not conflict with the purpose of including land in the Green Belt. 	n/a	<p>The Site is within the Green Belt and is proposed to have ancillary development such as a processing plant and screening. The Site is likely to have a major impact on the preservation of the openness of the Green Belt and/or may conflict with purpose of including land within it. The Site is likely to require high levels of mitigation to make it acceptable.</p>	<p>The Site is within the Green Belt is not proposed to have ancillary development such as a processing plant and screening. The Site is likely to have a moderate impact on the preservation of the openness of the Green Belt and/or may conflict with purpose of including land within it. The Site is likely to require medium levels of mitigation to make it acceptable.</p>	n/a	<p>The Site is not within the Green Belt. The Site is likely to have no impact on preservation of the openness of the Green Belt that requires mitigation and/or would not conflict with purpose of including land within it.</p>	<ul style="list-style-type: none"> • GIS Portal Data • Promoter of site • National map of planning data (https://www.planning.data.gov.uk/map/)

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<i>Policy Wording (Taken from Adopted Essex Minerals Local Plan 2014)</i>		RED	RED-AMBER	AMBER	AMBER-GREEN	GREEN	Sources
<p>Policies:</p> <p>DM1- Development Management Criteria. Proposals for minerals development will be permitted subject to it being demonstrated that the development would not have an unacceptable impact, including potential cumulative issue with other developments, upon:</p> <ul style="list-style-type: none"> Point 9: Public Open Space, the definitive Public Rights of Way network and outdoor recreation facilities. <p>Policy S10 Protecting and enhancing the environments and local amenity – Applications for minerals development shall demonstrate that:</p> <p>a) Appropriate consideration has been given to public health and safety, amenity, quality of life of nearby communities, and the natural, built, and historic environment,</p> <p>b) Appropriate mitigation measures shall be included in the proposed scheme of development, and</p> <p>c) No unacceptable adverse impacts would arise and;</p> <p>d) Opportunities have been taken to improve/ enhance the environment and amenity</p> <p><i>Other Information</i></p> <p>Recreation and right of way network Paragraph 5.47 Minerals development can affect public rights of way, open spaces, and informal outdoor recreational land. Public access to such routes and areas may be restricted for health and safety reasons and to prevent criminal damage. Where rights of way are affected, arrangements for their temporary or permanent diversion must be put in place as part of proposals. This will apply to definitive routes used by cyclists, horse riders and walkers that either cross or are close to a site. Restoration of mineral workings may provide an opportunity to provide new or enhanced rights of way and outdoor recreational uses.</p>	<p>PRoW</p> <p><i>Key considerations:</i></p> <p>Consider the presence of public rights of way (Highways Act 1980 Section 41)</p> <p>Highways Act 1980 Section 130(1), duty of highway authority to assert and protect the rights of the public to the use and enjoyment of any highway</p> <p>Impact on long distance trails (King Charles III England Coast Path)</p> <p>Potential for enhancement (would be sought at all sites)</p>	n/a	There are PRoWs within the Site. The Site is likely to have a major impact on PRoWs and is likely to require high levels of mitigation to make the Site acceptable	There are PRoWs bordering the Site. The Site is likely to have a moderate impact on PRoWs and is likely to require medium/low levels of mitigation to make the Site acceptable.	n/a	There are no PRoWs within or bordering the Site. The Site is likely to have no impact on PRoWs that requires mitigation.	<ul style="list-style-type: none"> GIS data Consultation with the ECC's PRoW officers Promoter of site ECC Officer Workshop National map of planning data (https://www.planning.data.gov.uk/map/)