



Kent Mineral Sites Plan

Mineral Site Assessment 2018

Contents

1	Introduction.....	3
2	Site Selection Methodology	4
3	Initial Site Assessment.....	9
4	Nominated Sites Eliminated at Initial Site Assessment Stage	42
5	Detailed Technical Assessment of Mineral Site Options.....	49
	M3: Chapel Farm, Lenham	52
	M8: West Malling Sandpit, Ryarsh	68
	M2: Lydd Quarry/Allen’s Bank Extension, Lydd	86
	M7: Land at Central Road, Dartford	100
	M10: Moat Farm, Five Oak Green, Capel	112
	M11: Joyce Green Farm Quarry Extension, Dartford - Sharp Sand and Gravel	123
	M12: Postern Meadows, Tonbridge.....	139
	M13: Stonecastle Farm Quarry Extensions, Hadlow/Whested.....	149
	M9 The Postern, Capel - Sharp Sand and Gravels	162
6	Conclusion.....	163
	Appendix 1 – Initial Site Assessment - RAG Sensitivity Scoring Criteria	165
	Appendix 2 - Green Belt Considerations – West Malling Sandpit (M8)	175
	Appendix 3 - Ryarsh Protection Group representation to Kent County Council, November 2018 - West Malling Sandpit (M8)	191
	Appendix 4 – Natural England’s Advice to KCC - Lydd Quarry (M2).....	210
	Appendix 5 - Alternative Supply of Aggregates and Socio-economic Considerations – Lydd Quarry (M2).....	216

V 1 First Draft for Publication

November
2018

1 Introduction

The adopted Kent Minerals and Waste Local Plan 2013-30 (KMWLP) is part of the Development Plan for planning purposes. It sets out the overarching framework for the strategy and planning policies for sustainable minerals extraction, importation and recycling, and the management of all waste streams that are generated in Kent, together with their spatial implications. This includes consideration of the economic, social and environmental aspects of strategic minerals and waste planning within the county. The Plan was formally adopted by the County Council in July 2016.

Whilst the adopted Plan provides the strategy and policy framework for minerals and waste proposals to be considered against, it does not allocate specific sites suitable for development (except for two strategic sites for cement production at Holborough in the Medway Valley, and hazardous waste disposal at Norwood Quarry on the Isle of Sheppey). The adopted KMWLP identifies that suitable sites will be allocated in separate subsequent Kent Minerals and Waste Sites Plans. Some work was previously undertaken on preparation of the Sites Plans that led to a Preferred Options Consultation (for waste and minerals) in May 2012. To enable a more up-to-date appraisal of site suitability and deliverability it was considered necessary to undertake a second 'Call for Sites' exercise and this commenced in late 2016, continuing into 2017. To inform the process of site selection the County Council also published a 'living draft' methodology for site selection which was subject to public consultation. The Site Plan work has followed the methodology as set out in the Kent Mineral Sites Plan - Methodology for Site Selection 2018.

During 2017 a re-assessment of waste management capacity was undertaken that identified that there is no need for the allocation of specific waste sites in a separate Waste Sites Plan and so this document is concerned solely with the identification of mineral sites.

This document sets out a summary of the methodology, the initial assessment conclusions and the detailed technical assessment conclusions for those sites promoted following the second Call for Sites. An earlier document, Site Selection Methodology Initial Screening RAG Scores v 2 2017 set out the position at the initial screening assessment stage. The details are reproduced in this document for ease of reference.

2 Site Selection Methodology

The County Council proposes a robust site selection process to determine which sites should be progressed to allocations for minerals development in the Minerals Sites Plan. This was originally set out in the living draft Site Selection Methodology (published in October 2016) and included checking alignment with the scope of the Sites Plans, initial screening (as detailed in this document), identification of reasonable alternatives and detailed technical assessments.

In undertaking the work, a change was introduced into the assessment process which relates to the provision of an early opportunity for public engagement on potential sites. It is considered that there is benefit in seeking early views from stakeholders as this provides an opportunity for local knowledge and specialist information held by stakeholders to be considered as the plan emerges. As such the views of stakeholders will benefit the subsequent detailed technical assessment stage. Public engagement is also generally considered to be an important part of the plan-making process. The revised living draft Site Selection Methodology (revised November 2017) included alignment with the objectives of the adopted KMWLP and scope of the sites plan, initial screening, consultation on the site options and detailed technical assessment of the site options.

Stage 1 – Alignment with the objectives of the adopted KMWLP and scope of the Sites Plan

Those sites not falling within the scope of the adopted KMWLP, and modifications proposed by the partial review, which do not identify the need for the allocation of such a site, were eliminated at this stage. These sites are listed in Section 4 of this report.

Stage 2 - Initial Screening

At the initial screening stage, it was considered beneficial to consider all sites that had been promoted through the Call for Sites which were in alignment with the objectives of the KMWLP and the scope of the Sites Plan. This has provided comparable information for all promoted sites, should it be required at a later stage in the plan making process.

This initial screening of the sites utilises a refined ‘traffic light’ system based on a Red, Red-Amber, Amber, Amber-Green and Green (RAG) scoring methodology (See Table 1) to determine which sites will be published for consultation and go forward to the Detailed Technical Assessment stage. The RAG process acts as a scoping stage to highlight sites which might cause significant impacts, alone or in combination. It is primarily a desk-based procedure, supported by site visits.

Each site was RAG assessed against the following criteria:

- Landscape designations and potential visual impacts upon such designations
- Nature conservation interests and geodiversity
- Historic environment;
- Green Belt
- Water environment including flooding;

- Air quality;
- Soil quality;
- Public Rights of Way (PRoW);
- Transport (including access);
- Services and utilities;
- Health and Amenity i.e. noise, dust, odour, vibration impacts etc.
- Cumulative impacts; and
- Airport safeguarding

Table 1: Summary of the General RAG Assessment Methodology

Sensitivity Score	Description	Possible Mitigation
RED	The impact or issue is so severe that it would be unlikely to be adequately mitigated and no evidence has been provided on the potential mitigation and/or, in the case of sites within AONB existence of any relevant exceptional circumstance demonstrating it to be in the public interest. It is considered that the site is unlikely to be able to proceed	Mitigation in order to make the site acceptable is unlikely
RED- AMBER	There is a major impact or issue which may be made acceptable by mitigation	Likely to require high levels of mitigation in order to make the site acceptable
AMBER	There is a moderate impact or issue which may be made acceptable by mitigation	Likely to require medium levels of mitigation in order to make the site acceptable
GREEN- AMBER	There is a minor impact or issue which may be made acceptable by mitigation	Likely to require low levels of mitigation in order to make the site acceptable
GREEN	There are no impacts or issues relating to the criteria being assessed that require mitigation	Likely to require negligible to no mitigation in order to make the site acceptable

The way in which the RAG score is applied to each assessment criteria is detailed in the RAG Sensitivity Scoring Criteria, as appended at Appendix 1. In practice, the degree to which individual sites score on the Amber, Amber-Green and Green spectrum will determine the more sustainable solutions likely to progress to the next stage, consultation on the site options. Sites that received a Red score in the assessment were more likely to be ruled out at Stage 2 on the basis that they raise issue(s) of such severity that they are unlikely to be able to be adequately mitigated. This assessment process does not, however, automatically exclude sites that are assessed as red-amber from Stages 3 and 4, on the basis that suitable mitigation may be achievable. However, where a site scores Red-Amber against a number of criteria it was considered that it was less likely to progress to the next stages as it is more likely that the overall impacts and extent of mitigation required to make the site acceptable is so great that it would be likely to be undeliverable. The RAG scoring methodology is therefore intended to provide an 'indication' of a site's suitability or unsuitability.

Section 3 of this report details the RAG assessment for the sites that were promoted to the County Council as a consequence of the 'Call for Sites' exercise and not eliminated at Stage 1 above - alignment with the Plan.

Stage 3 - Consultation on Options

The sites which represented potentially sustainable options for minerals developments were identified via the RAG initial screening and went forward to Stage 3 as the Options for Consultation. These were set out in the Kent Minerals and Waste Local Plan 2013-30 Mineral Sites Plan Options Consultation Document November 2017. The document and supporting evidence were subject to public consultation between December 2017 and March 2018. Views were sought from a variety of stakeholder interests, including an early view from local communities in the vicinity of the sites. The views received have been taken into consideration in the Detailed Technical assessment phase. This work has also informed the sustainability appraisal and Habitat Regulation Assessment.

In addition to the RAG considerations, for a site to be considered as a Mineral Site Option it also had to:

- Align with the Objectives of the KMWLP - (Stage1 above);
- Be justified
- Be deliverable

Stage 4 - Detailed Technical Assessment to Identify the Preferred Options for allocation in Mineral Sites Plan

The site options which were identified as potentially suitable from the Initial Screening and RAG assessment work were subject to more rigorous detailed technical assessment. As appropriate, this included assessment in respect of a range of environmental impacts including landscape and visual impact, amenity, highways and transportation, biodiversity, historic environment, water resources and flood risk, impact upon Public rights of way land stability and need. As appropriate it also included assessment in respect of:

- Habitat Regulations
- Green Belt
- Requirements of National Planning Policy and Guidance
- The Kent Minerals and Waste Local Plan 2013-30

Where appropriate, additional information was provided by the promoter to aid the assessment process and consider issues raised as a result of public consultation or by technical consultees. The Detailed Technical assessment stage of the work has informed the Plan's Sustainability Appraisal.

In addition, to the above technical assessments, to ensure that the Sites Plan work is planning for sufficient requirements, the Detailed Technical Assessment stage of the work has included a review of the soft sand and sharp sand and gravel requirements for aggregates to be provided for in the Mineral Site Plan. Policy CSM2 of the KMWLP requires the Site Plan to allocate sites for soft sand and for sharp sand and gravel based upon the most recent calculations of requirements set out in the Local Aggregate Assessment. This work has identified a soft sand need of 2.5mt and a sharp sand and gravel need of 5.75mt. It should however be noted that as sharp sand and gravel resources in Kent are rapidly depleting, Policy CSM2 recognises that the sharp sand and gravel requirements only need to be met whilst resources allow. Further details are set out in the Soft Sand and Sharp Sand and Gravels Topic Papers 2018.

At the conclusion of this stage of the assessment process, those sites that are demonstrably acceptable against the selection criteria will be identified as Preferred Options for allocation in the Mineral Sites Plan.

In essence, for a site to be allocated it has to be where viable mineral resources are known to exist; where landowners are supportive of mineral development taking place and where the Mineral Planning Authority considers that planning applications are likely to be acceptable in principle in planning terms having regard to planning policy and guidance.

The conclusion of the Detailed Technical Assessment work is set out in **Section 6**.

3 Initial Site Assessment

This section of the report reproduces the conclusions of the earlier site assessment work. This was previously set out in Kent Minerals Sites Plan – Mineral Site Selection – Initial Assessment November 2017. A summary of these findings is also set out in the Kent Minerals and Waste Local Plan 2013-30 Minerals Sites Plan Options Consultation Document, November 2017.

RAG Scoring Mineral Sites

Abbreviations:

- AONB – Area of Outstanding Natural Beauty
- AQMA – Air Quality Management Area
- BAP – Biodiversity Action Plan
- GSPZ – Groundwater Source Protection Zone
- GVZ – Groundwater Vulnerability Zone
- KMWLP – Kent Minerals and Waste Local Plan
- LWS – Local Wildlife Sites
- PRN - Primary Route Network
- PROW – Public Right of Way
- SSSI – Site of Special Scientific Interest

Chapel Farm, Lenham (Ref. M3)

Address: Chapel Farm, Ashford Road, Lenham, Kent, ME17 2DP

Soft sand extraction, 4,000,000 tonnes over a period of 26 years at a rate of 150,000 tpa. Site is 58.67ha. Restoration: it is proposed to restore the site to a lower level by infilling and return the site back to an agricultural after use.

Consideration	RAG Outcome	Reason
Landscape Designations/Visual Impact	Amber	Although the site does not fall within the Kent Downs AONB, it is considered to be within its setting and so potentially could have a moderate adverse visual impact on views towards the site from within the AONB that may require mitigation/appropriate screening. This matter would be subject to further detailed technical assessment.
Nature Conservation and Geodiversity	Amber	Lenham Quarry (SSSI) is within 1km of the site, although it is unlikely to be adversely affected by the site. Ancient Woodland, notably Roughetts Shaw is situated onsite, although this woodland has a felling license. A number of BAP Priority Habitats and LWSs are located adjacent to the site; mitigation would need to be considered to prevent adverse impacts on these designations from the site.
Historic Environment	Amber	There are a number of listed buildings within 250m of the site, notably: Chapel Farm (Grade II), Royton Manor (Grade II*), Mount Castle Farm Cottage (Grade II), Chapel Mill (Grade II), Vine House (Grade II), The Forstal (Grade II). Chapel Farm and Royton Manor both lie within 100m of the site. Chilston Park (Grade II) Historic Garden lies adjacent to the site. A number of archaeological sites have been identified within the site. Mitigation is likely to be necessary to prevent adverse impacts on Kent's heritage assets and/or their setting.
Water Environment	Green	The site is in Flood Zone 1. Part of the site is within GSPZ 3. A large part of the site is situated on a Major Aquifer Intermediate. Sand and gravel workings are classed as water compatible development and would therefore have no unacceptable impact on water resources.
Air Quality	Green	The site is not within, or located near to an AQMA and poses low or no risk of adverse impacts to AQMAs or air quality.
Soil Quality	Amber-Green	The site contains Grade 3 quality soil – Good to Moderate. The soil may be impacted, although opportunities for restoration to agricultural after use have been proposed which may mitigate any impacts in the long term.

Public Rights of Way (PROW)	Amber-Red	There are a number of footpaths that are located within the site, or in close proximity, notably: KH397, KH398, KH408, KH409, KH409B and KH428. Given the proposed 26-year operations of the site, impacts on these footpaths would require mitigation which would include diversion.
Transport	Amber-Green	It is proposed to provide a new access route adjoining the site to the A20 (PRN). The route would initially follow an existing (unclassified) agricultural track before adjoining the planned access route (cutting through agricultural land). The site could have a minor adverse impact on transport and access in the absence of mitigation, which could be provided through planning obligations.
Services and Utilities	Amber-Green	Lenham sewage works are situated adjacent to the site and a sewer line cuts through the site. Power lines also cross the western section of the site. Any adverse impacts on these services/utilities would require mitigation.
Health and Amenity	Amber	There are a number of residential properties within 250m of the site. Given the close proximity of residential properties, mitigation is likely to be required to ensure the site does not cause an unacceptable impact on health and amenity (dust, noise, vibration, visual amenity etc.).
Cumulative Impact	Amber	The area immediately surrounding the site has been subject to extensive quarrying activity. The accumulation of activity at the site with that of the quarrying activity in the surrounding area may well have a cumulative impact on the environment and on the local community that would likely require mitigation.
Airport Safeguarding Zone	Green	The site is not within, or near to an Airport Safeguarding Zone.
Green Belt	Green	The site is not within the Green Belt.
Summary and Outcome of Scoring (including key issues and constraints)		<p>The site could make a significant contribution to the KMWLP requirements in the supply of soft sand.</p> <p>Overall, this assessment suggests that there are no constraints which cannot be overcome by appropriate mitigation. This site should therefore be subject to consultation as an option as well as further detailed technical assessment and Sustainability Appraisal.</p> <p>Key findings of this assessment which may need further attention at the detailed assessment stage are as follows:</p> <ul style="list-style-type: none"> • The site is within the setting of the Kent Downs AONB and appropriate mitigation measures would be required. • SSSI is located within 1km of the site, Ancient Woodland is situated on the site and a number of BAP Priority Habitats and LWS are located adjacent to the site; mitigation

	<p>measures would be required to prevent unacceptable adverse impacts on these designations.</p> <ul style="list-style-type: none">• There are a number of listed buildings within 250m of the site; mitigation would be required to protect these heritage assets and their setting.• A number of archaeological sites have been identified within the site and a full investigation would be required to prevent unacceptable adverse impacts and to preserve Kent's heritage assets.• The site contains Grade 3 quality soil (Good to Moderate). Appropriate consideration would be required to reduce the impact on this interest.• A number of public footpaths are located within the site or in close proximity. Impacts on these footpaths would require mitigation which would include diversion.• Overhead electrical power lines and sewer lines located within or adjacent to the site would require appropriate consideration of rerouting and mitigation.• There are a number of residential properties within 250m of the site. Given the close proximity, mitigation would be required to ensure there are no unacceptable adverse impacts on health and amenity.• The surrounding area has been subject to extensive quarrying activity for a number of years. The cumulative impacts on the environment and local community, along with the impact on the highway network would need to be appropriately considered.• An appropriate transport and access arrangement to prevent unacceptable adverse impacts on local amenity would also need to be considered.
--	---

Double Quick Farm, Charing (Ref. M14)

Address: Double Quick Farm Sawmill, Lenham Forstal Road, Lenham Heath, Kent, ME17 2BZ

Soft sand extraction, 1,000,000 tonnes over a period of 10 years at a rate of 100,000 tpa. Site is 3ha. Restoration: back fill with clean inert/re topsoil.

Consideration	RAG Outcome	Reason
Landscape Designations/Visual Impact	Amber	The site is within 2km of the Kent Downs AONB (approximately 1.3km) with separation afforded by the rail line and A20 to the north. The site is also within an area of open countryside. As such, landscape assessment would be required to determine the extent of any impact and any mitigation necessary to prevent any adverse impact on the open countryside and setting of the AONB.
Nature Conservation and Geodiversity	Green	The site would have no impact on international, national or local designations.
Historic Environment	Amber-Green	Individual listed buildings are located within 500m of the site, one of which is within 250m. The site may have an impact on the nearby listed building within close proximity that could likely be addressed through mitigation.
Water Environment	Amber-Red	The site lies within GSPZ 3, GVZ Major Aquifer Intermediate and Principal Bedrock Aquifer. Given the presence of the GSPZ, GVZ and Aquifer across the whole of the site, development may have a major impact on vulnerable water bodies in the absence of mitigation.
Air Quality	Green	The site is not within or near to an AQMA.
Soil Quality	Amber	Natural England's Agricultural Land Classification Map states that the site contains Grade 3 (Good to Moderate) quality soil which is likely to be impacted by the site activities. Opportunities for mitigation/restoration exist in returning the site to agricultural use.
Public Rights of Way (PROW)	Amber-Green	Footpaths AW11A and KH402 are both located within 90m of the site. The site would not require the footpaths to be diverted, although mitigation/screening may need to be considered.
Transport	Red	It is proposed for the site to adjoin Lenham Forstal Road (a narrow unclassified country lane) which after approximately 2km adjoins the A20. There are severe impacts associated with accessing the site in that the surrounding road network is considered unsuitable for HGVs.
Services and Utilities	Green	There are no services or utilities near to or within the site.
Health and Amenity	Amber-Red	The site is located within close proximity to the small village/hamlet of Lenham Heath. There are a number of dwellings within 90m and adjacent to the site. The site could have major adverse impact to health and amenity in the locality in terms of dust, noise, vibration, visual intrusion and traffic

		associated with operations at the site which would likely require mitigation.
Cumulative Impact	Amber-Red	The area surrounding the site has a longstanding history of quarrying activity which may well result in an unacceptable adverse impact on environment and/or community that would require mitigation.
Airport Safeguarding Zone	Green	The site is not near to, or within an Airport Safeguarding Zone.
Green Belt	Green	The site is not within the Green Belt.
Summary and Outcome of Scoring (including key issues and constraints)		<ul style="list-style-type: none"> • The site is within an area of open countryside and within 1.3km of the Kent Downs AONB; appropriate mitigation measures would be required. • There are a number of listed buildings within 500m of the site; mitigation would be required to protect these heritage assets and their setting. • Mitigation would be required to prevent unacceptable adverse impacts on the aquifers located within the site. • The site contains Grade 3 quality soil (Good to Moderate). Appropriate consideration would be required to reduce the impact on this interest. • A number of public footpaths are located within the site. Impacts on these footpaths would require mitigation. • There are severe impacts associated with accessing the site in that the surrounding road network is considered unsuitable for HGVs. • There are a number of residential properties within 100m of the site (including in close proximity to the small village/hamlet of Lenham Heath). Given the close proximity, mitigation would be required to ensure there are no unacceptable adverse impacts on health and amenity. • The surrounding area has been subject to extensive quarrying activity for a number of years. The cumulative impacts on the environment and local community would need to be appropriately considered. <p>It is considered that the transport impacts could not be overcome and so the site is not proposed as an option for allocation in the Minerals Sites Plan.</p>

Joyce Green Quarry, Dartford (Ref. M11)

Address: Joyce Green Lane, Dartford, Kent, DA1 5PN

Sand and gravel extraction, 1,500,000 tonnes over a period of 10 years at a rate of 150,000 tpa. Site is 55ha. Restoration: water bodies with wetland edges to provide additional biodiversity and recreational use of parts of the site.

Consideration	RAG Outcome	Reason
Landscape Designations/Visual Impact	Amber	The site is not within the AONB. The site is not within an area of open countryside but does cover an area of marsh grazing land within what is otherwise a predominantly industrialised/urbanised area. Mineral extraction would temporarily compromise the open, natural landscape which would require mitigation.
Nature Conservation and Geodiversity	Amber	Inner Thames Marsh and Purfleet Chalk Farm (SSSI) both within 2km of the site. BAP habitat Coastal Saltmarsh and Mudflats adjacent to the site with half the site covered by BAP Coastal and Floodplain Grazing Marsh habitat. The whole site is covered by LWS – Dartford Marshes. The mineral extraction activities would result in the loss of the BAP Coastal and Floodplain Grazing Marsh habitat with proposed restoration to wetland. The BAP Coastal Saltmarsh and Mudflats adjacent to the site could also be adversely affected by mineral extraction at the site. The LWS Dartford Marshes would also be impacted by extraction activities although this may be appropriately addressed through the proposed wetland restoration. The impacts from development of the site may be mitigated or compensated such that there is net benefit to biodiversity from the proposed restoration.
Historic Environment	Amber-Green	The site is within an area of archaeological potential and investigative works would need to be undertaken to ensure there are no adverse impacts to Kent's heritage assets from development of the site.
Water Environment	Amber	The site lies within Flood Zones 2 and 3, and an area benefiting from flood defence. The southern extent of the site along with the permitted area of the site falls within GSPZ total catchment (zone 3). The site is also within Major Aquifer High Groundwater Vulnerability Zone. Sand and gravel extraction is considered water compatible development in accordance with the Flood Zone Vulnerability Classification Table, although the extraction activities may have a moderate adverse impact on other vulnerable water bodies (the GSPZ and Aquifer) requiring mitigation.
Air Quality	Amber	The site is within the vicinity of Dartford AQMAs 1, 2, 3 & 4. Bexley AQMA borders the site to the west. Given the proximity of the site to nearby AQMAs, the site may have an adverse impact on air quality requiring mitigation.

Soil Quality	Amber	Natural England's Agricultural Land Classification Map states that the site contains Grade 3 (Good to Moderate) quality soil. The soil is likely to be impacted by activities at the site, restoration opportunities exist although it is proposed to restore the site to wetland habitat.
Public Rights of Way (PROW)	Amber	Footpath DB1 and Darent Valley Path / London Loop run through the site and alongside the southern site boundary. Footpaths DB2 and DB4 run alongside the eastern site boundary. The site is likely to cause a moderate impact on the footpaths crossing the site and adjacent to the site which may require diversion and mitigation. Opportunities to restore/reinstate the footpaths upon completion of the mineral extraction and restoration exist.
Transport	Amber	The proposed access to the site would be via Joyce Green Lane (an unclassified rural lane) to the roundabout junction onto Bob Dunn Way (A206). The site has good transport links to the PRN/SRN. However, there may be issues with the site access in that Joyce Green Lane may not be suitable for usage by HGVs and significant work may need to be carried out to make the proposed access feasible.
Services and Utilities	Green	There are no services or utilities near to, or within the site.
Health and Amenity	Amber-Green	The area around site is mainly coastal flood plain used for grazing with a recreational shooting range in the east and commercial/industrial uses to the west. The quarry is unlikely to cause significant amenity impacts. To the south of the site are two dwellings that are likely to see an increase in traffic, vibration, noise and pollution and so mitigation is likely to be required.
Cumulative Impact	Amber-Green	The area has seen quarrying activity in the past, there is industrial activity to the north, east and west and further activity at the proposed site may have a negative impact on the environment/locality.
Airport Safeguarding Zone	Green	The site is not within an Airport Safeguarding Zone.
Green Belt	Amber-Green	The site is within the Green Belt. However, mineral extraction activity is not considered to be inappropriate development within the Green Belt. Associated activities such as processing and restoration may affect 'openness' and if proposed would need to demonstrate the existence of 'very special circumstances' as set out in Green Belt policy.

<p>Summary and Outcome of Scoring (including key issues and constraints)</p>		<p>The site could make a significant contribution to the KMWLP requirements in the supply of sharp sand and gravel.</p> <p>Overall, this assessment suggests that there are no constraints which cannot be overcome by appropriate mitigation. This site should therefore be subject to consultation as an option as well as further detailed technical assessment and Sustainability Appraisal.</p> <p>Key findings of this assessment which may need further attention at the detailed assessment stage are as follows:</p> <ul style="list-style-type: none"> • The site covers an area of marsh grazing land and appropriate mitigation measures would be required. • The entirety of the site is covered by LWS, SSSI is located within 2km of the site and BAP Habitats are located adjacent to the site; mitigation measures would be required to prevent unacceptable adverse impacts on these designations. • The site is located within an area of Archaeological Potential and a full investigation would be required to prevent unacceptable adverse impacts and to preserve Kent's heritage assets. • Mitigation would be required to prevent unacceptable adverse impacts on the aquifers located within the site. • The site is in close proximity to several AQMA's. Mitigation would be required to prevent an unacceptable adverse impact on the local air quality. • The site contains Grade 3 quality soil (Good to Moderate). Appropriate consideration would be required to reduce the impact on this interest. • The site is within the Green Belt, appropriate consideration would be required to consider the potential impact upon 'openness'. • A number of public footpaths are located within the site or in close proximity. Impacts on these footpaths would require mitigation which would include diversion. • Nearby road networks may be incapable of accommodating HGVs; mitigation would be required to ensure that the impact upon the local road infrastructure is reasonable. • There are a couple of residential properties in close proximity to the site. Given the close proximity, mitigation would be required to ensure there are no unacceptable adverse impacts on health and amenity. • The surrounding area has been subject to extensive quarrying activity for a number of years. The cumulative impacts on the environment and local community would need to be appropriately considered.
---	--	--

Central Road, Dartford (Ref. M7)

Address: Central Road, Dartford, Kent, DA1 5AH

Sand & gravel extraction, 900,000 tonnes over a period of 10 years at a rate of 90,000 tpa. Site is 23.2ha.

Consideration	RAG Outcome	Reason
Landscape Designations/Visual Impact	Amber-Green	The site does not fall within the AONB. However, the site is within an area of open land that would be readily visible from the surrounding area, particularly the residential properties to the east and the A206 to the north – this may have a minor adverse impact requiring mitigation.
Nature Conservation and Geodiversity	Amber	The site is listed within the Priority Habitat Inventory for Coastal and Flood Plain Grazing Marsh with the site situated on LWS Dartford Marshes. The site is likely to have a significant effect on the local designation; potential mitigation measures have not been included in the proposal.
Historic Environment	Amber-Green	There are no listed buildings within close proximity to the site. However, the site is in an area of archaeological potential which would need to be addressed and potentially mitigated.
Water Environment	Amber-Green	The site falls within Flood Zone 2 and 3, GSPZ 2 (Outer Zone), an area of a Major Aquifer High Groundwater Vulnerability Zone and within an area of Secondary A and Secondary (undifferentiated) aquifers. The site also falls within an Area Benefitting from Flood Defence. Although the site is in an area of high flood risk, the proposed sand and gravel extraction is considered water compatible development in accordance with the Flood Risk Vulnerability Classification Table. The aquifer present may require consideration, and potentially mitigation, to prevent adverse impacts.
Air Quality	Amber	The site is near to 3 AQMAS, within 90m of the Dartford Town Centre AQMA. It is not specified how many vehicle movements would arise from operations at the site. The site could have an impact on air quality should traffic from the site pass through an AQMA that would require mitigation.
Soil Quality	Amber	The soil quality is stated as in part Grade 2 (Very Good) and Grade 3 (Good to Moderate) on Natural England's Agricultural Land Classification Map. Proposed restoration/after use is not stated and it is therefore possible that the Grade 2/3 quality soil may be lost without appropriate mitigation.
Public Rights of Way (PROW)	Amber-Green	The site is bordered by public footpath DB1 and bridleway DB4 to the west and to the east, both of which run in a north-south direction. Although the site is unlikely to require the two PROWs highlighted to be diverted, mitigation/screening may be required.
Transport	Amber-Green	Although access arrangements for the site aren't specified, the site adjoins Central Road (SRN)

		which is in close proximity to the A206 (PRN). Given that the site is located in a heavily industrialised area, mitigation may be required to prevent impacts resulting from an increase in vehicular movements in the area/associated with the site.
Services and Utilities	Amber	Powerlines are located within the site. These powerlines would require consideration and mitigation if extraction were to take place on site.
Health and Amenity	Amber	Residential properties are situated to the east and west of the site beyond Central Road and the River Darent with properties having views that look out on to what is currently undisturbed marshland. Mineral activities at the site would potentially result in a number of adverse impacts on health and amenity in the locality, notably dust, noise, vibration and visual intrusion that would require adequate mitigation.
Cumulative Impact	Amber	The site is located in an industrial area with substantial residential development taking place in the nearby vicinity. The nearby AQMA also suggests significant traffic movements nearby. These factors suggest that mitigation may be necessary to prevent adverse impacts on the local environment/community.
Airport Safeguarding Zone	Green	London City Airport is located approximately 11.4km from the site. While this is within the 13km Aerodrome Safeguarding Area radius it is not considered likely that operations at the site would result in an increased risk of bird-strike to aircraft.
Green Belt	Green	The site is not within the Green Belt.
Summary and Outcome of Scoring (including key issues and constraints)		<p>The site could make a significant contribution to the KMWLP requirements in the supply of sharp sand and gravel.</p> <p>Overall, this assessment suggests that there are no constraints which cannot be overcome by appropriate mitigation. This site should therefore be subject to consultation as an option as well as further detailed technical assessment and Sustainability Appraisal.</p> <p>Key findings of this assessment which may need further attention at the detailed assessment stage are as follows:</p> <ul style="list-style-type: none"> • The site is situated within the LWS Dartford Marshes and is likely to have a significant impact on the designation. Mitigation measures would be required to prevent unacceptable adverse impacts on this designation. • The site is located within an area of Archaeological Potential and a full investigation would be required to prevent unacceptable adverse impacts and to preserve Kent's heritage assets. • Mitigation would be required to prevent unacceptable adverse impacts on the aquifers

	<p>located within the site.</p> <ul style="list-style-type: none">• The site is in close proximity to three AQMA's. Mitigation would be required to prevent an unacceptable adverse impact on the local air quality.<ul style="list-style-type: none">• The site contains Grade 2 (Very Good) and Grade 3 (Good to Moderate) quality soil. Appropriate consideration would be required to reduce the impact on this interest.• The site borders a public footpath and bridleway. Impacts on these would require mitigation which could include diversion.• An appropriate transport and access arrangement to prevent adverse impacts on local amenity.• Overhead electrical power lines located within the site would require appropriate consideration of rerouting and mitigation.• There are a number of residential properties to the east and west of the site. Given the close proximity, mitigation would be required to ensure there are no unacceptable adverse impacts on health and amenity.• Substantial residential development is taking place in the nearby vicinity. Significant traffic movements need to be considered and appropriately mitigated, including the impact on the AQMA
--	--

Moat Farm, Five Oak Green, Capel (Ref. M10)

Address: Moat Farm, Five Oak Green, Tonbridge, Kent, TN12 6RR

Sand and gravel extraction, 1,500,000 tonnes over a period of 15 years at a rate of 100,000 tpa. Site is 40.3ha and currently used for agriculture. Restoration: wetland habitat restoration using limited quantities of inert material.

Consideration	RAG Outcome	Reason
Landscape Designations/Visual Impact	Amber	The High Weald AONB is located approximately 1.8km to the north of the site and may therefore have some degree of adverse impact on its setting that may require mitigation. The site is also located within an area of open countryside which may require appropriate mitigation e.g. screening. A landscape assessment is required.
Nature Conservation and Geodiversity	Amber-Green	The site is bordered to the north-west by Ancient Woodland with further Ancient Woodland within 500m of the site to the south-west. Mitigation may be necessary to prevent any adverse impact on the Ancient Woodland.
Historic Environment	Amber-Green	The site is adjoined on its southern boundary by Moat Farm Listed Building. A number of other Listed Buildings are located within 1km to the east of the site in the village of Whetsted. Mitigation may be required to prevent adverse impact and to preserve the setting of Moat Farm.
Water Environment	Amber	The site is within Flood Zones 2 and 3. The site predominantly falls within GSPZ 2 with parts of the site falling in GSPZ 1. The site is partly within a Secondary Superficial Aquifer and Secondary (undifferentiated) aquifer, in addition GVZ - Minor Aquifer High covers the whole site. The sand and gravel extraction activities are considered water-compatible development in the Flood Risk Vulnerability Classification Table. Mitigation may be required to prevent adverse impact on the aquifers located within the site.
Air Quality	Green	The site is not within, or near to an AQMA.
Soil Quality	Amber-Red	Natural England's Agricultural Land Classification states that the soil is of Grade 3 (Good to Moderate) quality. The proposed restoration is to wetland habitat and therefore the agricultural land would be lost. Opportunities for mitigation/restoration to agricultural land exist.
Public Rights of Way (PROW)	Amber	Footpaths WT159 and WT158 cross the western extent of the site, with footpath WT169 runs along the southern boundary of the site. The two footpaths located on site would likely require extensive, and potentially permanent diversion with the proposed site restoration being wetland habitat.
Transport	Green	Access to the site is proposed via a purpose-built private road from Stonecastle Farm Quarry

		joining onto the A228 (Whetsted Road, PRN). The site would therefore utilise the existing access serving Stonecastle Farm Quarry.
Services and Utilities	Green	There are no services or utilities near to, or within the site.
Health and Amenity	Amber	There are residential properties within 1km of the site to the south in the village of Five Oak Green and to the east in the village of Whetsted, although only Moat Farm itself is located within 250m of the site. Given the sites proposed access and transport route via the existing Stonecastle Farm Quarry, the increase in traffic movements could potentially have a moderate adverse health and amenity impact in terms of traffic, noise etc. on properties in Whetsted and those located on or near to the A228 which would require mitigation.
Cumulative Impact	Amber	There has been a significant amount of quarrying activity in the area, notably with Stonecastle Farm Quarry to the east. The accumulation of activity at the proposed site and existing nearby quarry site may have a moderate adverse impact on the environment and/or community that would require mitigation.
Airport Safeguarding Zone	Green	The site is not within an Airport Safeguarding Zone.
Green Belt	Amber-Green	The site is within the Green Belt. However, mineral extraction activity is not considered to be inappropriate development within the Green Belt. Associated activities such as processing and restoration may affect 'openness' and if proposed would need to demonstrate the existence of 'very special circumstances' as set out in Green Belt policy.

<p>Summary and Outcome of Scoring (including key issues and constraints)</p>		<p>The site could make a significant contribution to the KMWLP requirements in the supply of sharp sand and gravel.</p> <p>Overall, this assessment suggests that there are no constraints which cannot be overcome by appropriate mitigation. This site should therefore be subject to consultation as an option as well as further detailed technical assessment and Sustainability Appraisal.</p> <p>Key findings of this assessment which may need further attention at the detailed assessment stage are as follows:</p> <ul style="list-style-type: none"> • The site is within 1.8km of the High Weald AONB and appropriate mitigation measures would be required. • Ancient Woodland borders the site; mitigation measures would be required to prevent unacceptable adverse impacts on this designation. • A listed building borders the site and a number of others are within 1km of the site; mitigation would be required to protect these heritage assets and their setting. • Mitigation would be required to prevent unacceptable adverse impacts on the aquifers located within the site. • The site contains Grade 3 quality soil (Good to Moderate). Appropriate consideration would be required to reduce the impact on this interest. • A number of public footpaths are located within the site or in close proximity. Impacts on these footpaths would require mitigation which would include diversion. • There are a number of residential properties within 1km of the site. Given the close proximity, mitigation would be required to ensure there are no unacceptable adverse impacts on health and amenity. • The site is within the Green Belt, appropriate consideration would be required to consider the potential impact upon 'openness'. • The surrounding area has been subject to extensive quarrying activity for a number of years. The cumulative impacts on the environment and local community, along with the impact on the highway network would need to be appropriately considered. • An appropriate transport and access arrangement to prevent unacceptable adverse impacts on local amenity.
---	--	--

Lydd Quarry and Allens Bank Extension, Lydd (Ref. M2)

Address: Jury's Gap Road, Lydd, Kent, TN29 9JW

Sand and gravel extraction, 3,100,000 tonnes over a period of 12.3 years at a rate of 250,000 tpa. Site is 38.07ha. Restoration: it is proposed to restore the site to open water bodies.

Consideration	RAG Outcome	Reason
Landscape Designations/Visual Impact	Amber	The site is not within the AONB. It is within the open countryside and is a proposed extension to the existing Lydd Quarry and Allens Bank. Upon completion of mineral extraction at the site it is proposed to restore the site to open bodies of water. This would change the intrinsic character of the countryside in this locality although there are existing extensive areas of mineral workings including restored to open water/wetland in this immediate area.
Nature Conservation and Geodiversity	Amber-Red	The site is within the Dungeness, Romney Marsh and Rye Bay SSSI, adjacent to the Dungeness, Romney Marsh and Rye Bay Ramsar, SPA and SAC within 1km. BAP Priority habitat Coastal Vegetated Shingle is within and adjacent to the site with a number of other BAP habitats (Coastal and Floodplain Grazing Marsh, Deciduous Woodland, Traditional Orchard) within 1km of the site. The proposed site is likely to have a significant to moderate impact on the designations as the site is located within national designations, adjacent to international designations and within and in close proximity to local designations. The SSSI designation doesn't preclude extraction and may be acceptable if the geomorphological formations are widespread. There is also the possibility of enhancement through the creation of open water bodies through restoration.
Historic Environment	Amber	There are a number of Listed Buildings within 250m of the site, notably Tourney Hall (Grade II) adjacent to the site. The site is also located within an area of Archaeological Potential. Mitigation may be required to preserve the Listed Buildings and their setting; archaeological investigative works may also be necessary on the site before any extraction activity.
Water Environment	Green	The site is within Flood Zone 3 and benefits from flood defence. The site is within the Secondary Aquifer & Groundwater Vulnerability Zone notation for the area and the Minor Aquifer High notation that covers the whole site. Mineral extraction activities at the site would not have an unacceptable adverse impact on water resources.
Air Quality	Green	There are no AQMAs on, or within close proximity to the site.
Soil Quality	Green	Natural England's Agricultural Land Classification Map states the site contains Grade 4 (Poor) quality soil. Mineral extraction at the site would not result in the loss of good/very good quality soil.

Public Rights of Way (PROW)	Amber	Footpath HL26 borders and crosses the site, HL27 crosses the northern part of the site; HL48 borders the south of the site. It is likely that the footpaths highlighted would require temporary diversion. The stated proposed restoration is to open water bodies, although opportunities to restore the footpaths do exist.
Transport	Amber	Access to the site is via the Jury's Gap Road part of the SRN which serves the existing Lydd Quarry site, the PRN (A259) is some distance away (approximately 5km) past Lydd towards New Romney. There may be moderate transport impacts in that the access to the PRN would likely be via the town of Lydd, the road infrastructure may not cope with the increase in HGV movements, mitigation would be necessary.
Services and Utilities	Amber	Overhead electrical line route cuts through 'area 22' in the western extent of the site, adjacent to the existing Lydd quarry and sewage works. Sewer line runs through 'area 22' and 'area 23' of the site. The services and utilities highlighted could require consideration to affect any necessary re-routing or other mitigation.
Health and Amenity	Amber-Red	The town of Lydd lies adjacent to the south of the proposed site extensions, sharing a boundary with two areas of the site. A number of other residential properties are within close proximity to various areas of the site. Given the extensive area the site covers, the site could cause major adverse impacts (dust, noise, vibration, visual intrusion, traffic) to the health and amenity of the locality in the absence of mitigation.
Cumulative Impact	Amber	There are several restored mineral sites within the area, as well as the operational ones on which the extension is proposed. The site relates to multiple areas of extraction. The accumulation of the quarry extension with the existing quarry site may have a moderate adverse impact on the community and/or environment for which mitigation may be necessary.
Airport Safeguarding Zone	Amber-Green	The site is within 2.3km of Lydd Airport. It is not anticipated that the activities at the site would result in an increased risk of bird strike to aircraft.
Green Belt	Green	The site is not within the Green Belt.
Summary and Outcome of Scoring (including key issues and constraints)		<p>The site could make a significant contribution to the KMWLP requirements in the supply of sharp sand and gravel.</p> <p>Overall, the assessment suggests that there are no constraints which cannot be overcome by appropriate mitigation. This site should therefore be subject to consultation as an option as well as further detailed technical assessment and Sustainability Appraisal.</p> <p>Key findings of the assessment which may need further attention at the detailed assessment stage are as follows:</p>

	<ul style="list-style-type: none">• The quarry extension areas are located within SSSI, adjacent to Ramsar/SPA and within 1km of SAC. BAP Priority Habitat is located within the site as well as the surrounding area. Mitigation measures would be required to prevent unacceptable adverse impacts on these designations.• Subject to a study of the geological and geomorphological interests of the site, restored quarry water habitat areas could contribute to the value of the designated areas.• There are a number of listed buildings within 250m of the site; mitigation would be required to protect these heritage assets and their setting.• The site is located within an area of Archaeological Potential and a full investigation would be required to prevent unacceptable adverse impacts and to preserve Kent's heritage assets.• A number of public footpaths are located within the site or in close proximity. Impacts on these footpaths would require mitigation which would include diversion.• Given the sites' distance from the Primary Route Network PRN (approximately 5km) mitigation would be required to ensure that the local road infrastructure (in particular the town of Lydd) is not adversely impacted.• Overhead electrical power lines and sewer lines located within or adjacent to the site would require appropriate consideration of rerouting and mitigation.• The town of Lydd lies adjacent to the site boundary. Given the close proximity, mitigation would be required to ensure there are no unacceptable adverse impacts on health and amenity.• The surrounding area has been subject to extensive quarrying activity for a number of years. The cumulative impacts on the environment and local community, along with the impact on the highway network would need to be appropriately considered.
--	--

Postern Meadows, Tonbridge (Ref. M12)

Address: Postern Meadows, Postern Lane, Tonbridge, Kent, TN9 1SW

Sand and gravel extraction, 230,000 tonnes over a period of 3 years at a rate of 75,000 tpa. Site is 7.2ha. Restoration: to landscaped lake without any infilling and restoration to amenity, nature conservation and recreational use.

Consideration	RAG Outcome	Reason
Landscape Designations/Visual Impact	Amber-Green	The site is not within an area of open countryside, the site is bounded by industrial development to the south, west and north-west and the River Medway to the north and to the east. The site does not fall within the AONB although may be considered to fall within the High Weald AONBs setting, any potential minor impact could be addressed through mitigation.
Nature Conservation and Geodiversity	Amber-Green	There is an area of Ancient Woodland approximately 300m to the east of the site. BAP Habitat (traditional orchard) approximately 600m to the south east. An area of deciduous woodland approximately 500m to the west of the site. The site may have a minor adverse impact on the nearby local designations highlighted, although this could be addressed through mitigation and potentially enhanced in the future following restoration.
Historic Environment	Amber-Green	There are listed buildings within 500m of the site to the west and to the southeast, although it is unlikely that activities at the site would have an adverse impact on the listed buildings. The site is within an area of archaeological potential, prior investigative work may be required to ensure the preservation of any archaeological assets on or near to the site.
Water Environment	Amber	The site is within Environment Agency Flood Zones 2 and 3, GSPZ 3 (total catchment), Minor Aquifer High Groundwater Vulnerability Zone. The sand and gravel extraction at the site is considered water compatible development in the Flood Risk Vulnerability Classification Table. The site may have some impact on the GSPZ/Minor Aquifer that may require mitigation.
Air Quality	Green	The site is not within an AQMA. Tonbridge High Street AQMA is approximately 1km away although it is considered that the site would have an impact on the AQMA.
Soil Quality	Amber	Natural England's Agricultural Land Classification states that the soil is of Grade 3 (Good to Moderate) quality. The proposed restoration is to landscaped lakes and therefore the agricultural land would be lost. Opportunities for mitigation/restoration to agricultural land exist.
Public Rights of Way (PROW)	Amber	Footpath MU33 runs adjacent to the southern boundary of the site. Footpaths MU32 and MU34 are both within 90m of the site. Wealdway and Medway Valley Walk lies within 90m of the site. Footpath MU33 is currently well screened, however further mitigation/screening may well be

		necessary for the other footpaths listed to ensure there are no negative impacts.
Transport	Amber-Green	Access to the site would be created through the industrial site to then adjoin the A26 (Vale Road, PRN). Mitigation may need to be considered in creating the dedicated access and preventing increased traffic with regard to the industrial site.
Services and Utilities	Green	There are no services or utilities near to or within the site.
Health and Amenity	Amber	The site is located within a predominantly commercial/industrial area. Individual properties are located within 250m of the site which may be moderately impacted by the site in terms of health and amenity – noise, dust, vibration, and mitigation may be required to address these potential impacts.
Cumulative Impact	Amber-Green	Given that the site is within a commercial/industrial area and the proposed access would be located through the industrial site there may be some cumulative impact in terms of increased traffic movements associated with the site.
Airport Safeguarding Zone	Green	The site is not within or near to an Airport Safeguarding Zone.
Green Belt	Amber-Green	The site is within the Green Belt. However, mineral extraction activity is not considered to be inappropriate development within the Green Belt. Associated activities such as processing and restoration may affect 'openness' and if proposed would need to demonstrate the existence of 'very special circumstances' as set out in Green Belt policy.

<p>Summary and Outcome of Scoring (including key issues and constraints)</p>		<p>The site could make a contribution to the KMWLP requirements in the supply of sharp sand and gravel.</p> <p>Overall, this assessment suggests that there are no constraints which cannot be overcome by appropriate mitigation. This site should therefore be subject to consultation as an option as well as further detailed technical assessment and Sustainability Appraisal.</p> <p>Key findings of this assessment which may need further attention at the detailed assessment stage are as follows:</p> <ul style="list-style-type: none"> • The site is within the setting of the High Weald AONB and is bounded by industrial development; appropriate mitigation measures would be required. • Ancient Woodland is located within 300m of the site, deciduous woodland within 500m and BAP Habitat within 600m; mitigation measures would be required to prevent unacceptable adverse impacts on these designations. • There are a number of listed buildings within 500m of the site; mitigation would be required to protect these heritage assets and their setting. • The site is located within an area of Archaeological Potential and a full investigation would be required to prevent unacceptable adverse impacts and to preserve Kent's heritage assets. • Mitigation would be required to prevent unacceptable adverse impacts on the aquifers located within the site. • The site contains Grade 3 quality soil (Good to Moderate). Appropriate consideration would be required to reduce the impact on this interest. • The site is within the Green Belt, appropriate consideration would be required to consider the potential impact upon 'openness'. • A number of public footpaths are located in close proximity to the site. Impacts on these footpaths would require mitigation which would include diversion. • Increase in vehicular movements on nearby road networks would require mitigation to ensure that the local road infrastructure is not adversely impacted. • There are a number of properties within 250m of the site. Given the close proximity, mitigation would be required to ensure there are no unacceptable adverse impacts on health and amenity. • Cumulative impacts in terms of increased traffic movements would need to be considered and appropriately mitigated.
---	--	--

Stonecastle Farm, Hadlow/Whetsted (Ref. M13)

Address: Stonecastle Farm Quarry, Whetsted Road, Whetsted near Tonbridge, Kent

Sand and gravel extraction, 1,000,000 tonnes over a period of 7 years at a rate of 200,000 tpa. Actual yield may be less due to quality issues. Site is 27.8ha. Restoration: phased restoration to follow after extraction - lakes, complex of vegetated/bare islands, trees kept back from lake edge.

Consideration	RAG Outcome	Reason
Landscape Designations/Visual Impact	Amber	The site is not within the AONB (the High Weald AONB is approximately 3km to the south west). The site is within an area of open countryside, the landscape of which would be considerably altered by the mineral extraction activities and proposed lake restoration – although this could enhance the landscape of the area.
Nature Conservation and Geodiversity	Amber	There is Ancient Woodland adjacent to the site. The site contains BAP habitat Deciduous Woodland. Although the adjacent woodland is likely to be maintained, sufficient mitigation would be necessary to ensure this. The BAP woodland is shown as lost on the restoration plans, but this could be offset or amended by restoration that includes replacement woodland.
Historic Environment	Amber-Green	There are individual Listed Buildings within 250m of the site. Although it is unlikely, the site may cause a minor adverse impact to the Listed Buildings that would require mitigation.
Water Environment	Amber	The site lies within Flood Zones 2 and 3. GSPZ zone 2 and partly 3 Secondary A Superficial Aquifer and GVZ - Minor Aquifer High. The nature of operations at the site (sand and gravel extraction) is considered water compatible development. However, the site could have a moderate adverse impact on GSPZ/vulnerable water bodies in the absence of mitigation.
Air Quality	Green	The site is not within, or in close proximity to AQMA.
Soil Quality	Amber	Natural England's Agricultural Land Classification Map states that the site contains Grade 3 (Good to Moderate) quality soil. The soil present although not of the highest quality, would be impacted by the mineral activity at the site. Although the proposed restoration is to lakes and vegetated/bare islands, opportunities for mitigation/restoration exist.
Public Rights of Way (PROW)	Amber-Green	PROW MT 160 runs along the northern edge of the River Medway, just north of the site (approx. 75m). PROW WT 168 is on the western boundary of the site which runs south from Hartlake Road. The two PROWs highlighted may be affected in their setting and require mitigation e.g. screening.
Transport	Green	It is proposed that the site would use the established access for the existing quarry. This site

		access adjoins directly on to the A228 (SRN). The site would not give rise to adverse impacts on transport and access to the PRN/SRN.
Services and Utilities	Amber-Green	There are overhead power lines that cross a small area of the south-western portion of the site. The power lines highlighted may require consideration and mitigation.
Health and Amenity	Amber-Green	There are individual residential properties within 1km of the site although they are unlikely to be adversely impacted by the proposal. The main impact on the locality would be the continuation of HGV movements at the established access and along the A228. Though this is unlikely to result in unacceptable levels of impact.
Cumulative Impact	Amber-Green	The proposed site is an extension to the existing Stonecastle Quarry site and as such there may be an adverse impact on the environment/locality from the continuation of extraction operations at the site.
Airport Safeguarding Zone	Green	The site is not within an Airport Safeguarding Zone.
Green Belt	Amber-Green	The site is within the Green Belt. However, mineral extraction activity is not considered to be inappropriate development within the Green Belt. Associated activities such as processing and restoration may affect 'openness' and if proposed would need to demonstrate the existence of 'very special circumstances' as set out in Green Belt policy.

<p>Summary and Outcome of Scoring (including key issues and constraints)</p>		<p>The site could make a contribution to the KMWLP requirements in the supply of sharp sand and gravel.</p> <p>Overall, this assessment suggests that there are no constraints which cannot be overcome by appropriate mitigation. This site should therefore be subject to consultation as an option as well as further detailed technical assessment and Sustainability Appraisal.</p> <p>Key findings of this assessment which may need further attention at the detailed assessment stage are as follows:</p> <ul style="list-style-type: none"> • The site is within 3km of the High Weald AONB and appropriate mitigation measures would be required. • The site contains BAP Habitat Deciduous Woodland with Ancient Woodland adjacent to the site; mitigation measures would be required to prevent unacceptable adverse impacts on these designations. • There are a number of listed buildings within 250m of the site; mitigation would be required to protect these heritage assets and their setting. • Mitigation would be required to prevent unacceptable adverse impacts on the aquifers located within the site. • The site contains Grade 3 quality soil (Good to Moderate). Appropriate consideration would be required to reduce the impact on this interest. • The site is within the Green Belt, appropriate consideration would be required to consider the potential impact upon 'openness'. • A number of public footpaths are located in close proximity to the site. Impacts on these footpaths would require mitigation which would include diversion. • Overhead electrical power lines located within the site would require appropriate consideration of rerouting and mitigation. • There are a number of residential properties within 1km of the site. Given the close proximity, mitigation would be required to ensure there are no unacceptable adverse impacts on health and amenity. • The surrounding area has been subject to extensive quarrying activity for a number of years. The cumulative impacts on the environment and local community would need to be appropriately considered. • An appropriate transport and access arrangement to prevent unacceptable adverse impacts on local amenity.
---	--	---

The Postern, Capel (Ref. M9)

Address: The Postern, Postern Lane, Tonbridge, TN11 0QU

Sand and gravel extraction, reserve estimate of 600,000 tonnes to be confirmed, 5-year extraction is suggested. Site is 12ha. Restoration: proposed lakes following extraction.

Consideration	RAG Outcome	Reason
Landscape Designations/Visual Impact	Amber-Green	The site lies approximately 1km to the north of the High Weald AONB, although it could be considered to have a minor adverse impact on the AONBs setting which could be addressed through mitigation. In addition, the site lies within an area of open countryside which may also require mitigation to prevent adverse impacts. A landscape assessment is required.
Nature Conservation and Geodiversity	Amber-Green	BAP Traditional Orchards occupy a small part of the site although mitigation would be possible to preserve this habitat. An area of Ancient Woodland lies within 500m to the west of the site although is unlikely to be affected by activity at the site.
Historic Environment	Amber-Green	Three listed buildings are within 250m of the site, with two Archaeological Sites also within 250m of the site. Mitigation may be required to ensure there are no adverse impacts on the setting of the Listed Buildings and Archaeological Sites from activities at the site.
Water Environment	Amber	The site is within Flood Zones 2 and 3, GSPZ 3. The site is also located in area containing Secondary (undifferentiated) superficial aquifer and Minor Aquifer Intermediate. The sand and gravel extraction activities are considered water-compatible development in the Flood Risk Vulnerability Classification Table. Mitigation may be required to prevent adverse impact on the aquifers located within the site.
Air Quality	Green	The site is not within or near to an AQMA.
Soil Quality	Amber	Natural England's Agricultural Land Classification states that the soil is of Grade 3 (Good to Moderate) quality. The proposed restoration is to landscaped lakes and therefore the agricultural land would be lost. Opportunities for mitigation/restoration to agricultural land exist.
Public Rights of Way (PROW)	Green	The site would have no effect on PROWs/Kent's Long Distance Trails.
Transport	Amber	Access information to the site has not been provided with the site nomination and so details are unclear. Postern Lane lies within 500m to the south of the site and adjoins the A26 (PRN) within 1km to the West in Tonbridge, although this lane would unlikely be capable of accommodating HGVs given the fact it is narrow, and therefore would require widening/making suitable for HGVs.

		Should the site be accessed to the north, both a dedicated access and a route of transport connecting to the A26 would be required. The site presents issues in terms of access/egress to the site as well as accessing the PRN and mitigation would therefore be necessary as well as potential planning obligations.
Services and Utilities	Amber	High Pressure Gas Pipelines cross the site. The sites promoter has stated that these pipelines would need to be avoided during extraction/restoration rather than being rerouted and as such would require mitigation.
Health and Amenity	Amber-Green	There are a small number of residential dwellings within 250m of the site with the majority of nearby land use being industrial/agricultural. The issues associated with transport/access to the site would likely have an adverse impact on health and amenity in terms of traffic, noise, odour etc.
Cumulative Impact	Green	There are no concerns of cumulative impact resulting from development at the site.
Airport Safeguarding Zone	Green	The site is not within or near to an Airport Safeguarding Zone.
Green Belt	Amber-Green	The site is within the Green Belt. However, mineral extraction activity is not considered to be inappropriate development within the Green Belt. The submission indicates that the resource would be processed elsewhere, and this location has not yet been determined. Any processing and additional plant may affect 'openness' and would need to demonstrate 'very special circumstances' as set out in Green Belt policy.

<p>Summary and Outcome of Scoring (including key issues and constraints)</p>		<p>The site could make a contribution to the KMWLP requirements in the supply of sharp sand and gravel.</p> <p>Overall, this assessment suggests that there are no constraints which cannot be overcome by appropriate mitigation. This site should therefore be subject to consultation as an option as well as further detailed technical assessment and Sustainability Appraisal.</p> <p>Key findings of this assessment which may need further attention at the detailed assessment stage are as follows:</p> <ul style="list-style-type: none"> • The site is within 1km of the High Weald AONB and appropriate mitigation measures would be required. • BAP Traditional Orchards occupy a small part of the site and Ancient Woodland is within 500m of the site; mitigation measures would be required to prevent unacceptable adverse impacts on these designations. • There are a number of listed buildings within 250m of the site; mitigation would be required to protect these heritage assets and their setting. • A number of archaeological sites have been identified within 250m of the site and a full investigation would be required to prevent unacceptable adverse impacts and to preserve Kent's heritage assets. • Mitigation would be required to prevent unacceptable adverse impacts on the aquifers located within the site. • The site is within the Green Belt, appropriate consideration would be required to consider the potential impact upon 'openness'. • The site contains Grade 3 quality soil (Good to Moderate). Appropriate consideration would be required to reduce the impact on this interest. • Nearby road networks are unlikely to be capable of accommodating HGVs; mitigation would be required to ensure that the impact upon the local road infrastructure is reasonable. • High Pressure Gas Pipelines which cross the site would require appropriate consideration of rerouting and mitigation. • There are a number of residential properties within 250m of the site. Given the close proximity, mitigation would be required to ensure there are no unacceptable adverse impacts on health and amenity.
---	--	--

West Malling Sandpit, Ryarsh (Ref. M8)

Address: Land at the Roughetts, Roughetts Road, Ryarsh, West Malling, Kent, ME19 5LA

Soft sand extraction, 3,100,000 tonnes over a period of 24 years at a rate of 130,000 tpa. Silica sand extraction, 500,000 tonnes over a period of 24 years at a rate of 20,000 tpa. Site is 12ha. Restoration: 5-year restoration to be returned to agricultural land (as existing).

Consideration	RAG Outcome	Reason
Landscape Designations/Visual Impact	Amber	The Kent Downs AONB lies immediately to the north of the site (separated by the M20) and the site is within an area of open countryside. It is likely that the site would require mitigation/screening to prevent any adverse impacts on the setting of the AONB and the open countryside. A landscape assessment would be required.
Nature Conservation and Geodiversity	Amber-Green	There are a number of international, national and local designations within close proximity to the site, notably: Trottiscliffe Meadow (SSSI, within 1.8km of the site), Ancient and Semi-Natural Woodland is located within the southern part of the site and surrounding the site, BAP Deciduous Woodland is located within the southern/western part of the site and surrounding the site. The site is unlikely to have an adverse impact on the SSSI highlighted. The proposed extraction intends to leave the Ancient Woodland and BAP Woodland intact, although mitigation would be necessary to ensure this.
Historic Environment	Amber-Green	There are a number of listed buildings within 500m of the site, 3 of which are within 260m of the site. In addition, there are a number of Scheduled Monuments within 1km of the site (Addington Long Barrow, within 960m and the Chestnuts Long Barrow within 1km), and Conservation Areas within 1km (Addington within 600m, Ryarsh Village within 640m and Offham Church within 800m). Mitigation may need to be considered to preserve Kent's heritage assets, particularly the listed buildings within close proximity to the site.
Water Environment	Amber-Green	The site is not located within Flood Zones 2 or 3. The site is located within GSPZ 3, is within Major Aquifer Intermediate Groundwater Vulnerability Zone, and Principal Bedrock Aquifer. The presence of the aquifer would require consideration prior to extraction and potentially mitigation.
Air Quality	Green	The site is not within, or in close proximity to an AQMA.
Soil Quality	Amber-Green	Natural England's Agricultural Land Classification Map states that the site contains Grade 3 (Good to Moderate) soil.
Public Rights of Way (PROW)	Amber	Footpaths MR152 and MR153 run through the site in an east-west direction. The two footpaths would require diversion/mitigation during the lifespan of the site, although there is potential to

		reinstate the footpaths during the restoration of the site as it is proposed to be returned to agricultural land (as existing).
Transport	Amber-Green	The proposed access to the site would be via Roughetts Road (Unclassified) which adjoins the site to the east. It is proposed that vehicles accessing the site would do so via the A20 (PRN) within 500m of the site to the south. There are individual properties along Roughetts Road which would need to be considered and potentially mitigated through planning obligations.
Services and Utilities	Amber-Green	Although no services or utilities are located on the site/area of extraction, a number of which have been identified as in close proximity to the site, including: Openreach/Telecom, Plancast/Telecom, SGN/Gas, South East Water/Water, Southern Water/Water and Sewage, UKPN/Electricity, Vodafone/Telecoms. Potential adverse impacts to these services and utilities may require
Health and Amenity	Amber	There are a number of properties within 500m of the site, with the village of Addington within 500m to the west. The nearest properties are approximately 200m from the site, some of which are located along Roughetts Road (the proposed transport/access route). Due to the close proximity of residential properties potential impacts to health and amenity in the locality in terms of noise, dust, traffic, vibration and visual intrusion would need to be assessed and mitigation measures proposed.
Cumulative Impact	Amber-Red	Wrotham Quarry is located approximately 800m from the site with a former quarry approximately 100m away. Given the history of quarrying activity in the area past and present and the site being located proximate to the AONB, cumulative impact would be expected in terms of additional traffic in the area and the adverse impact associated with quarrying activity more generally, and the effect this would have on the community and the environment.
Airport Safeguarding Zone	Green	The site is not within or near to an Airport Safeguarding Zone.
Green Belt	Amber-Green	The site is within the Green Belt. However, mineral extraction activity is not considered to be inappropriate development within the Green Belt. Associated activities such as processing and restoration may affect 'openness' and if proposed would need to demonstrate the existence of 'very special circumstances' as set out in Green Belt policy.

<p>Summary and Outcome of Scoring (including key issues and constraints)</p>		<p>The site could make a significant contribution to the KMWLP requirements in the supply of soft sand.</p> <p>Overall, the assessment suggests that there are no constraints which cannot be overcome by appropriate mitigation. This site should therefore be subject to consultation as an option as well as further detailed technical assessment and Sustainability Appraisal.</p> <p>Key findings of this assessment which may need further attention at the detailed assessment stage are as follows:</p> <ul style="list-style-type: none"> • The site is within the setting of the Kent Downs AONB and appropriate mitigation measures would be required. • SSSI is located within 1.8km of the site, Ancient Woodland and BAP Deciduous Woodland are located within the site and the surrounding area; mitigation measures would be required to prevent unacceptable adverse impacts on these designations. • There are a number of listed buildings within 500m of the site; mitigation would be required to protect these heritage assets and their setting. • A number of Scheduled Monuments and Conservation Areas are within 1km of the site and a full investigation would be required to prevent unacceptable adverse impacts and to preserve Kent's heritage assets. • Mitigation would be required to prevent unacceptable adverse impacts on the aquifers located within the site. • The site contains Grade 3 quality soil (Good to Moderate). Appropriate consideration would be required to reduce the impact on this interest. • The site is within the Green Belt, appropriate consideration would be required to consider the potential impact upon 'openness'. • Two public footpaths are located within the site. Impacts on these footpaths would require mitigation which would include diversion. • There are a number of residential properties within 500m of the site (including the village of Addington). Given the close proximity, mitigation would be required to ensure there are no unacceptable adverse impacts on health and amenity. • The surrounding area has been subject to extensive quarrying activity for a number of years. The cumulative impacts on the environment and local community, along with the impact on the highway network would need to be appropriately considered. • An appropriate transport and access arrangement to prevent unacceptable adverse impacts on local amenity.
---	--	--

Wrotham Quarry Extension, Addington/Trottiscliffe (Ref. M5)

Address: Wrotham Quarry, Addington, West Malling, Kent, ME19 5DL

Soft sand extraction, 790,000 tonnes over a period of 16 years at a rate of 50,000 tpa. Silica sand extraction, 1,570,000 over a period of 16 years at a rate of 100,000 tpa. Site is 17.5ha. Restoration: restoration would be back to agricultural land at original ground levels following infilling with inert waste materials.

Consideration	RAG Outcome	Reason
Landscape Designations/Visual Impact	Red	The site is located proximate to the M20 but in an area of open countryside within the Kent Downs AONB and would likely have a detrimental effect on the landscape setting. Para 116 expects that major development should not be allowed within AONBs unless there are exceptional circumstances.
Nature Conservation and Geodiversity	Amber-Green	Trottiscliffe Meadows (SSSI) lies within 250m (approximately 100m) to the west of the site boundary. Halling to Trottiscliffe Escarpment (SSSI) is located approximately 1.2km away. Ryarsh Wood (Ancient Woodland) lies immediately adjacent to the site to the north east. BAP Habitat – Woodland Priority Habitat Network lies within the site with BAP Habitat - Lowland Meadows lies approximately 100m from the site. The Trottiscliffe Meadows SSSI is designated for its floral importance which reduces the potential impact of the quarry. It is also already bordered by an existing quarry. The Ancient Woodland is unlikely to be impacted by the proposal, restoration measures also include extending Ryarsh Wood allowing for potential enhancement.
Historic Environment	Amber-Green	Woodgate Farmhouse and Woodgate Cottage Listed Buildings lie within 90m of the site. A number of Archaeological Sites lie within 90m of the proposal. Addington and Trottiscliffe Conservation Areas are both approximately 500m distance from the site. A recent extension to Wrotham Quarry has been permitted in closer proximity to the Listed Buildings highlighted than the proposal; however, consideration and potential mitigation may still need to be given to preserve the Listed Buildings. Although there are no Archaeological Sites within the proposed site, the quantity of sites in the surrounding area suggest a potential for archaeological finds within the site, prior investigative work could clarify this to prevent adverse impacts on Kent's Heritage Assets.
Water Environment	Amber-Green	The site falls within GSPZ 3 and GVZ – Major Aquifer Intermediate. The site is not at significant risk of flooding; however, consideration/mitigation may need to be given to the Major Aquifer present on site to prevent impacts to water sources.

Air Quality	Amber	Although the site itself does not lie within an AQMA, the nearest AQMAs are the M20 (1) approximately 5.7km away, TMBC 7 - Borough Green approximately 4.34km away, Larkfield AQMA approximately 4.73km away and the M20 approximately 4.86km away. Therefore, whilst the site is not within an AQMA the main access routes on the PRN and SRN contain several AQMAs with the exception of the A228 which may adversely impact on Air Quality within the AQMAs.
Soil Quality	Amber-Green	Natural England's Agricultural Land Classification Map states that the soil present on the site is of Grade 3 (Good to Moderate) quality. As such, agricultural land would be lost as a result of mineral extraction at the site. However, restoration measures include returning the site back to agricultural land which may improve the quality of soil present at the site.
Public Rights of Way (PROW)	Amber	The Weald Way (PROW) crosses the eastern part of the site in a northerly direction. Two further PROWs cross the site to the west. These PROWs would require diversion for the duration of mineral extraction at the site. There are opportunities for the diverted PROWs to be reinstated following restoration at the site.
Transport	Amber	Access to the site would be via the existing quarry and private access. Access to the site from the existing quarry would be via a tunnel beneath Addington Lane. Access would be from the A20 (PRN) to the west via Ford Lane and a private 1.2km access road. The A20 lies within 1km of the existing quarry access. Junction 2a of the M26 (SRN) lies within 5km. Potential issues exist in using Ford Lane as this route is not necessarily a suitable road to accommodate quarry traffic, especially when taking into account the cumulative impacts with the existing quarries in the area.
Services and Utilities	Green	There are no services or utilities near to, or within the site.
Health and Amenity	Amber	Land use in close proximity to the site is mainly agricultural or existing quarry works meaning the potential for sensitive receptors is low. However, residential areas in Addington and Trottiscliffe are approximately 500-600m from the site, residents may experience issues relating to noise, dust and pollution from HGVs travelling to and from the site.
Cumulative Impact	Amber	This area is currently being extensively quarried and restored meaning there is intensive quarrying activity for a significant period of time, as such a large number of HGVs would be using the access roads. The restoration of the southerly quarry site and the opening up of the proposed site would intensify mineral extraction and associated operations in the locality.
Airport Safeguarding Zone	Green	The site is not within, or near to an Airport Safeguarding Zone.
Green Belt	Amber-Green	The site is within the Green Belt. However, mineral extraction activity is not considered to be inappropriate development within the Green Belt. Associated activities such as processing and restoration may affect 'openness' and if proposed would need to demonstrate the existence of 'very special circumstances' as set out in Green Belt policy.

**Summary and
Outcome of Scoring
(including key
issues and
constraints)**

It is not proposed that this site form an option for consultation as it is located within the Kent Downs AONB. Other sites have been identified as options for meeting the need for supplying soft sand which are located outside of the AONB. Allocation of the site would therefore be contrary to the National Planning Policy Framework as it would be possible to maintain an adequate landbank for soft sand outside of the AONB through other allocated sites – as long as these are developed. There is no expectation within the KMWLP that a site should be allocated for meeting requirements for silica sand.

4 Nominated Sites Eliminated at Initial Site Assessment Stage

The following sites were nominated and eliminated at Initial Site Assessment Stage on the basis that the adopted Kent Minerals and Waste Local Plan, and modifications proposed by the partial review, do not identify the need for the allocation of such a site.

Name of Site	Address of Site	Purpose of site nomination	Reason for elimination at Stage 1
Paradise Farm	Lower Hartlip Road, Sittingbourne, Kent, ME9 7SR	Brickearth extraction, 885,900 tonnes over a period of 19 years at a rate of 46,600 tpa	<p>Majority of nominated site has recently been granted planning permission for brickearth extraction and the remaining areas would not be viable.</p> <p>The promoted site has and was the subject of a planning application in 2016 (ref. SW/0277/2016 for 0.885mt of Brickearth to be extracted over 19 years). This was permitted (January 2017) with deletion of two working phases that were adjacent to Newington (phases 16 and 17) and a minor area to the westerly quadrant of the site. This reduced the permitted reserve to 0.75mt to be extracted over 18 years. The un-permitted areas are nominated for allocation in the Minerals Sites Plan. The total reserve in Kent of Brickearth are 0.75mt at Paradise Farm, 0.15 mt at Orchard Farm, an estimated 0.08mt at Hempstead House and Jeffries, Claxfield Road that has an estimated reserve of 0.095mt. Overall the Kent Brickearth reserve is some 1.075mt. Those reserves under the control of the promoter amount to 0.995mt of this and would provide for approximately 23-24 years, almost for the required period of 25 years. The adopted Plan requires sites to be identified for the supply of Brickearth to have reserves of at least 25 years to support the level of actual and proposed investment of existing plant and equipment. Furthermore, the Brickearth resources that are still being promoted represent areas that are considered too small to be sites in their own right and may be unacceptable for material planning considerations.</p>

Name of Site	Address of Site	Purpose of site nomination	Reason for elimination at Stage 1
Norwood Quarry (Engineering Clay)	Land adjacent to Norwood Quarry, Lower Road, Minster on Sea, Sheppey, Kent, ME12 3AJ	Engineering clay extraction, 1,000,000m ³ over a period of 22 years at a rate of 50,000m ³ .	This site is identified in the Minerals Sites Plan though this site is an allocation in the adopted KMWLP. Further supply of clay for engineering purposes has been promoted through the Call for Sites exercise, as an extension to this site. The site promoter wishes to extract 1 million cubic metres of London Clay (at a rate of 50,000 cubic metres per annum) in three phases (1-3). Phase 3 and part of Phase 2 is currently the identified in the KMWLP as the strategic allocation for engineering clay extraction to meet needs for the clay and to create void space for the disposal of residues from Energy from Waste (EfW) processes in Kent. Thus, this strategic allocation currently adopted underpins the waste strategy needs of the KMWLP. The promoted site extension has a Phase 1 and the majority of a Phase 2. These areas, together with the adopted strategic allocation, would release significantly more engineering clay material than current need suggests is required. The strategic allocation site is identified as an adequate clay reserve up to 2030 in the adopted KMWLP. The NPPF does not
Richborough Road	Ramsgate Road, Richborough, Sandwich, Kent, CT13	Limestone extraction, 47,000,000 tonnes over a period of 19 years at a rate of 2,500,000 tpa.	A site providing this type of mineral is not required for allocation.
Wrotham Quarry Extension (Silica Sand)	Wrotham Quarry, Addington, West Malling, Kent, ME19 5DL	Silica sand extraction, 1,570,000 over a period of 16 years at a rate of 100,000 tpa.	A site providing this type of mineral is not required for allocation. Silica sand is a mineral that has national importance due to its limited distribution and its specialist application in industrial processes such as glass manufacture and as a foundry sand amongst others. In Kent the deposit is found in the Folkestone Formation as parts of the geological unit with particular purity. The NPPF states: <i>Minerals planning authorities should plan for a steady and adequate supply of industrial minerals by:</i>

¹ 1 cubic metres of stiff wet clay has a mass of 1.826 tonnes

Name of Site	Address of Site	Purpose of site nomination	Reason for elimination at Stage 1
			<p><i>providing a stock of permitted reserves to support the level of actual and proposed investment required for new or existing plant and the maintenance and improvement of existing plant and equipment, as follows:</i></p> <ul style="list-style-type: none"> - <i>at least 10 years for individual silica sand sites;</i> - <i>at least 15 years for cement primary (chalk and limestone) and secondary (clay and shale) materials to maintain an existing plant, and for silica sand sites where significant new capital is required.</i> <p>The adopted KMWLP states that the MPA will seek to permit sites to meet the above requirements and that proposals will be considered on their merits having regard to the policies of the Development Plan as a whole, with consideration of the technical matters and the husbanding of the material of high-grade (pure) deposits for industrial end uses. The Plan does not require silica sand sites to be allocated in the Mineral Sites plan and none have been promoted.</p>
Collarmakers Quarry	Collarmakers Quarry, Sandwich Road, Ash, Canterbury, Kent, CT3 2AH	Sand extraction, 500,000 tonnes over a period of 10 years at a rate of 50,000 tpa. Inert Waste. 100,000 tpa capacity. Site is 10ha.	Geology includes part the complex Lambeth Group of sands, clays and gravels. The formation has been quarried in the past (Upnor Quarry in Medway where the outcropped is a fine to medium grained clean sand to sandy clay that can be well graded, rounded flint gravel is also present). The promoted site reserve is only estimated (no bore hole data has been supplied) nor is there any supporting technical evidence to demonstrate that the resource in this location is capable of yielding a building sand aggregate.

Name of Site	Address of Site	Purpose of site nomination	Reason for elimination at Stage 1
Wey Street Quarry	Wey Street Farm, Wey Street, Hernhill, Faversham, Kent, ME13 9JB	Sand and gravel extraction, 2,000,000 tonnes over a period of 20 years at a rate of 100,000 tpa. Site is 20ha. Inert waste, 100,000 tpa capacity.	Geology includes part of the complex Lambeth Group of sands, clays and gravels. The formation has been quarried in the past (Upnor Quarry in Medway where the outcropped is a fine to medium grained clean sand to sandy clay that can be well graded, rounded flint gravel is also present). The promoted site reserve is only estimated (no bore hole data has been supplied) nor is there any supporting technical evidence to demonstrate that the resource in this location is capable of yielding a sand and gravel aggregate.
Hegdale Quarry	Hegdale quarry, Faversham Road, Baddlesmere near Faversham, Kent, ME13 0JX	Chalk extraction, 1,500,000m ³ over a period of 15 years at a rate of 50,000m ³ . Asbestos disposal, 100,000 tpa capacity.	The nominated site is an extension to an existing quarry of the same name in the Kent Downs Area of Outstanding Natural Beauty (AONB), a planning application would only be successful if it could be demonstrated that there were exceptional circumstances justifying the extraction of chalk in this sensitive landscape and it was in the public interest. Assessment of the site suggests that exceptional circumstances would not exist, and none have been advanced by the site promoter. Moreover, the site has an estimated 1.5 cubic million metres of chalk that would yield some 3.75mt of chalk and this reserve alone would last for 58 years at the recorded 2011-14 average sales rate of extraction. The indicated current chalk reserve position in Kent, that is sufficient for the anticipated Plan period, also suggests that there is no need to identify the promoted site in the Minerals Sites Plan at this time. The recorded average per annum sales for the period 2011-14 is 69,955 tonnes. Assuming the same sales per annum for the period 2015-16 (0.14mt in total) the 2014 reserves of 1.50 mt would now be reduced to 1.37mt. Assuming that extraction has remained at a level equivalent to the average of the 2011-14 period (0.07mtpa) the current permitted reserves will be sufficient for 22 years, if sales have been lower, closer to that recorded in 2014 (38,810 tonnes) then the permitted landbank could be sufficient for some 39 years. The Minerals Sites Plan is anticipated to be for the period 2019 to 20-30 a time of 11years. Therefore, there are sufficient permitted reserves of engineering and

Name of Site	Address of Site	Purpose of site nomination	Reason for elimination at Stage 1
			agricultural chalk in the county at this time for the anticipated plan period. Sites providing additional waste management capacity are not required for allocation.
Blaise Farm (Cranford)	Blaise Farm Quarry, West Malling, Kent, ME19 4PN	Organic, Composting and Anaerobic Digestion.	Sites providing additional waste management capacity are not required for allocation. See Partial Review of KMWLP consultation documentation for more details.
Chilmington Green	Mock Lane, Chilmington Green, Ashford, Kent, TN23 3DS	Energy from Waste, Gasification and Anaerobic Digestion. 500,000 tpa capacity.	Sites providing additional waste management capacity are not required for allocation. See Partial Review of KMWLP consultation documentation for more details.
Dunbrik Works	Land at Dunbrik Works, Main Road, Sundridge, Kent, TN14 6EP	Waste Transfer Station and Household Waste Recycling Centre.	Sites providing additional waste management capacity are not required for allocation. See Partial Review of KMWLP consultation documentation for more details.
Kemsley	DS Smith Kemsley Mill, Kemsley, Sittingbourne, Kent, ME10 2TD	Energy from Waste. 350,000 tpa capacity	Sites providing additional waste management capacity are not required for allocation. See Partial Review of KMWLP consultation documentation for more details.
Lympne Recovery	Enterprise Way, Link Enterprise Park, Lympne, Kent, CT21 4LP	Gasification/Anaerobic Digestion/Depolymerisation. 500,000 tpa capacity.	Sites providing additional waste management capacity are not required for allocation. See Partial Review of KMWLP consultation documentation for more details.
North Farm Lane	North Farm Lane, Tunbridge Wells, Kent, TN2 3EE	Energy from Waste, Gasification and Anaerobic Digestion. 500,000 tpa capacity.	Sites providing additional waste management capacity are not required for allocation. See Partial Review of KMWLP consultation documentation for more details.
Pedham Place	KCC Highways Depot, Pedham Place, London	Household Waste Recycling Centre, Waste Transfer Station. 100,000 tpa capacity.	Sites providing additional waste management capacity are not required for allocation. See Partial Review of KMWLP consultation documentation for more details.

Name of Site	Address of Site	Purpose of site nomination	Reason for elimination at Stage 1
	Road, Swanley, Kent, BR8 8TJ		
Richborough HWRC	Kent County Council Household Waste Recycling Centre, Ramsgate Road, Richborough, Sandwich, Kent, CT13 9NW	Household Waste Recycling Centre, Waste Transfer Station. 100,000 tpa capacity.	Sites providing additional waste management capacity are not required for allocation. See Partial Review of KMWLP consultation documentation for more details.
Sevington	Sevington Depot, Waterbrook Avenue, Ashford, Kent, TN24 0GB	Green Waste, Anaerobic Digestion/Energy from Waste, Bio Treatment. 80,000 tpa capacity.	Sites providing additional waste management capacity are not required for allocation. See Partial Review of KMWLP consultation documentation for more details.
Shelford	Shelford Landfill Site, Shelford Farm Estate, Broad Oak Road, Canterbury, Kent, CT2 0PU	Waste Transfer Station, Commercial and Industrial Waste. 40,000 tpa capacity.	Sites providing additional waste management capacity are not required for allocation. See Partial Review of KMWLP consultation documentation for more details.
Springhead	Station Road, Springhead, Dartford, Kent, DA13	Energy from Waste. 600,000 tpa capacity	Sites providing additional waste management capacity are not required for allocation. See Partial Review of KMWLP consultation documentation for more details.
Stone Pits	London Road, Dartford, Kent, DA9 9LD	Landfill, Inert Waste. 186,000 m3pa capacity.	Sites providing additional waste management capacity are not required for allocation. See Partial Review of KMWLP consultation documentation for more details.
The Forstal	Kent County Council, The Forstal, Beddow Way, Aylesford, Kent, ME20 7BT	Household Waste Recycling Centre, Waste Transfer Station. 30,000 tpa capacity.	Sites providing additional waste management capacity are not required for allocation. See Partial Review of KMWLP consultation documentation for more details.
Tilmanstone	Tilmanstone Colliery Tip	Landfill, Inert Waste. 100,000 tpa capacity	Sites providing additional waste management capacity are not required for allocation. See Partial Review of KMWLP consultation

Name of Site	Address of Site	Purpose of site nomination	Reason for elimination at Stage 1
	Regeneration, Pike Road, Eythorne, Dover, Kent, CT15 4ND		documentation for more details.
Unit P Continental Approach	Continental Approach and Car Park, Margate, Kent, CT9 4JL	Energy from Waste, 150,000 tpa capacity.	Sites providing additional waste management capacity are not required for allocation. See Partial Review of KMWLP consultation documentation for more details.
Westbere	Island Road, Canterbury, Kent, CT2 0EZ	Composting, Green Waste. 30,000 tpa capacity.	Sites providing additional waste management capacity are not required for allocation. See Partial Review of KMWLP consultation documentation for more details.
Westenhanger WTS	Newingreen, Hythe, Kent, CT21 4HU	Waste Transfer Station. 500,000 tpa capacity.	Sites providing additional waste management capacity are not required for allocation. See Partial Review of KMWLP consultation documentation for more details.
Norwood Quarry (Waste)	Land adjacent to Norwood Quarry, Lower Road, Minster on Sea, Isle of Sheppey, Kent, ME12 3AJ	Inert waste landfill, 1,000,000m3 capacity. Hazardous waste landfill, 100,000m3 capacity	Sites providing additional waste management capacity are not required for allocation. See Partial Review of KMWLP consultation documentation for more details.
Richborough Hall	Richborough Hall, Ramsgate Road, Richborough, Sandwich, Kent, CT13 9NW	Secondary and Recycled Aggregates. Permanent facility.	Sites already have benefit of full planning permission for waste treatment activities that give rise to recycled aggregates from the Construction, Demolition and Excavation Waste stream. In this regard the sites are fully operational and contributing to the current supply of recycled aggregates (844,946 tonnes in 2015 or 16.59% of overall supply of aggregates). The sites were promoted as sites that could expand their waste role as waste facilities beyond current activities.
Richborough Park	Richborough Park, Ramsgate Road, Richborough, Sandwich, Kent, CT13 9NW	Secondary and Recycled Aggregates. Permanent facility.	Sites providing additional waste management capacity are not required for allocation. See Partial Review of KMWLP consultation documentation for more details.

5 Detailed Technical Assessment of Mineral Site Options

Section 2 of this report sets out the process of the Detailed Technical Assessment (DTA) phase. At the conclusion of DTA stage of the assessment process, those sites that are acceptable against the selection criteria will be identified as Preferred Options for allocation in the Mineral Sites Plan.

In essence, for a site to be allocated it has to be where viable mineral resources are known to exist; where landowners are supportive of mineral development taking place and where the Mineral Planning Authority considers that planning applications are likely to be acceptable in principle in planning terms having regard to planning policy and guidance.

Policy CSM2 of the KMWLP sets out the following criteria for selecting and screening the suitability of sites for allocation in a Mineral Sites Plan:

- (i) The requirement for the mineral;
- (ii) Relevant development management policies;
- (iii) Relevant policies in district local plans and neighbourhood plans;
- (iv) Strategic environmental information, including landscape assessment and Habitat Regulation Assessment as appropriate;
- (v) Deliverability; and
- (vi) other National planning policy and guidance

The policy also states that sites to be identified in a Mineral Sites Plan will generally be where viable mineral resources are known to exist, where landowners are supportive of mineral development taking place and where the Mineral Planning Authority considers that planning applications are likely to be acceptable in principle in planning terms.

Those sites which were identified as potentially suitable for allocation subject to public consultation and detailed technical assessment from the Initial Screening and RAG assessment work have been subject to more rigorous detailed technical assessment. This stage considered a range of environmental impacts including landscape and visual impact, amenity, highways and transportation, biodiversity, historic environment, water resources and flood risk, impact upon Public rights of way land stability and need. As appropriate it also included assessment in respect of:

- Habitat Regulations
- Green Belt
- Requirements of National Planning Policy and Guidance
- The Kent Minerals and Waste Local Plan 2013-30
- Sustainability Appraisal for each site

The work has also included a review of the soft sand and sharp sand and gravel requirements to be provided for in the Mineral Site Plan. Policy CSM2 of the KMWLP requires the Site Plan to allocate sites for soft sand and for sharp sand and gravel based upon the most recent calculations of requirements set out in the Local Aggregate Assessment. The review work has identified **a soft sand need of 2.5mt and a sharp sand and gravel need of 5.75mt**. It should however be noted that as sharp sand and gravel resources in Kent are rapidly depleting, Policy CSM2 recognises that the sharp sand and gravel requirements only need to be met whilst

resources allow. Further details are set out in the Soft Sand and Sharp Sand and Gravels Topic Papers 2018.

In response to the Call for Sites, 19 mineral sites were promoted for consideration, nine of which were selected as 'Options,' i.e. sites that were considered potentially suitable for allocation in the Kent Minerals Sites Plan, subject to public consultation and detailed technical assessment work. The Site Options subjected to detailed technical assessment (DTA) for soft sand were:

Site Ref	Soft Sand Sites	Estimated reserve
M3	Chapel Farm, Lenham	3.2mt
M8	West Malling Sandpit, Ryarsh	3.1mt (and 0.5mt of silica sand)

During the DTA stage, the promoter amended the Chapel Farm site to remove the eastern parcel of the promoted site and minor revisions to the access route onto the A20. Further information was also provided by the promoter of Site M8 indicating where the mineral would be excavated.

The Site Options for sharp sand and gravel were:

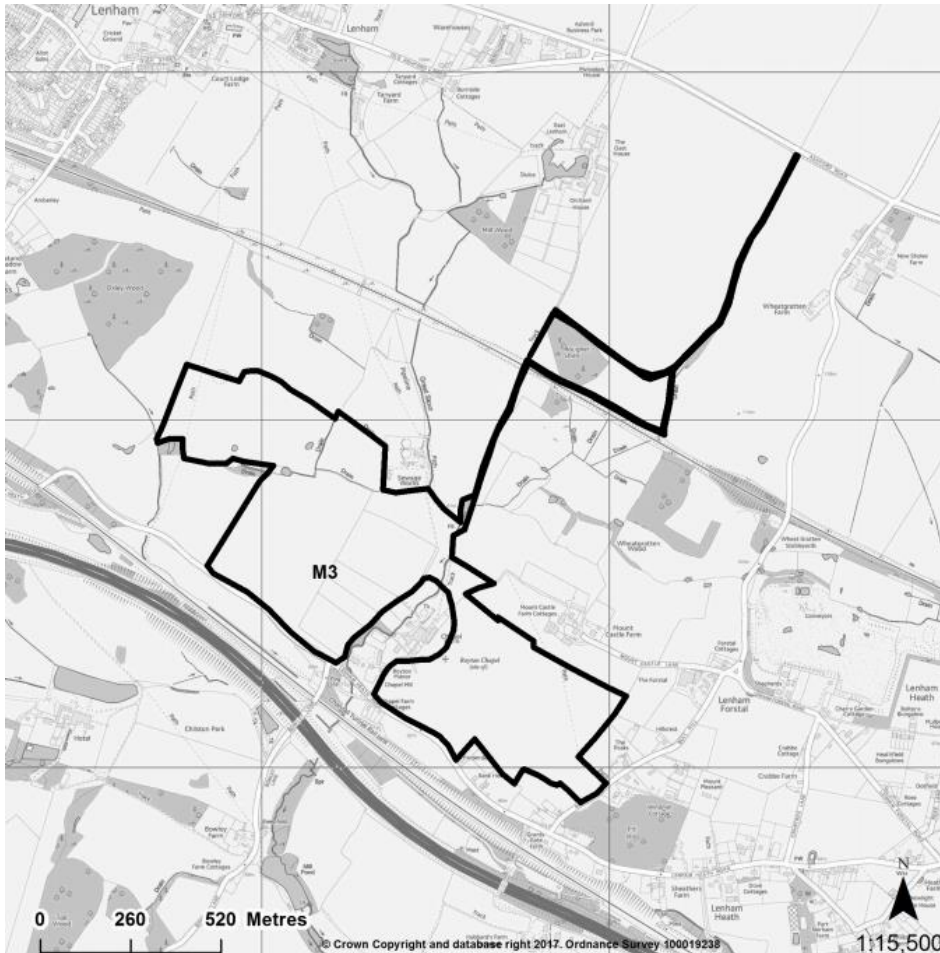
Site Ref	Sharp Sand and Gravel Sites	Estimated reserve
M2	Lydd Quarry/Allen's Bank Ext, Lydd	3.1mt
M7	Central Road, Dartford	0.9mt
M9	The Postern, Capel	0.6mt
M11	Joyce Green Quarry, Dartford	1.5mt
M13	Stonecastle Farm Quarry Ext, Hadlow/Whested	1.0mt
M12	Postern Meadows, Tonbridge	0.23 mt
M10	Moat Farm, Five Oak Green, Capel	1.5mt

During the DTA stage, The Postern, Capel site (M9) was withdrawn from further consideration by the site's promoter.

Full details of the nine sites that progressed to the DTA stage and the assessment conclusions are set out in the section below.

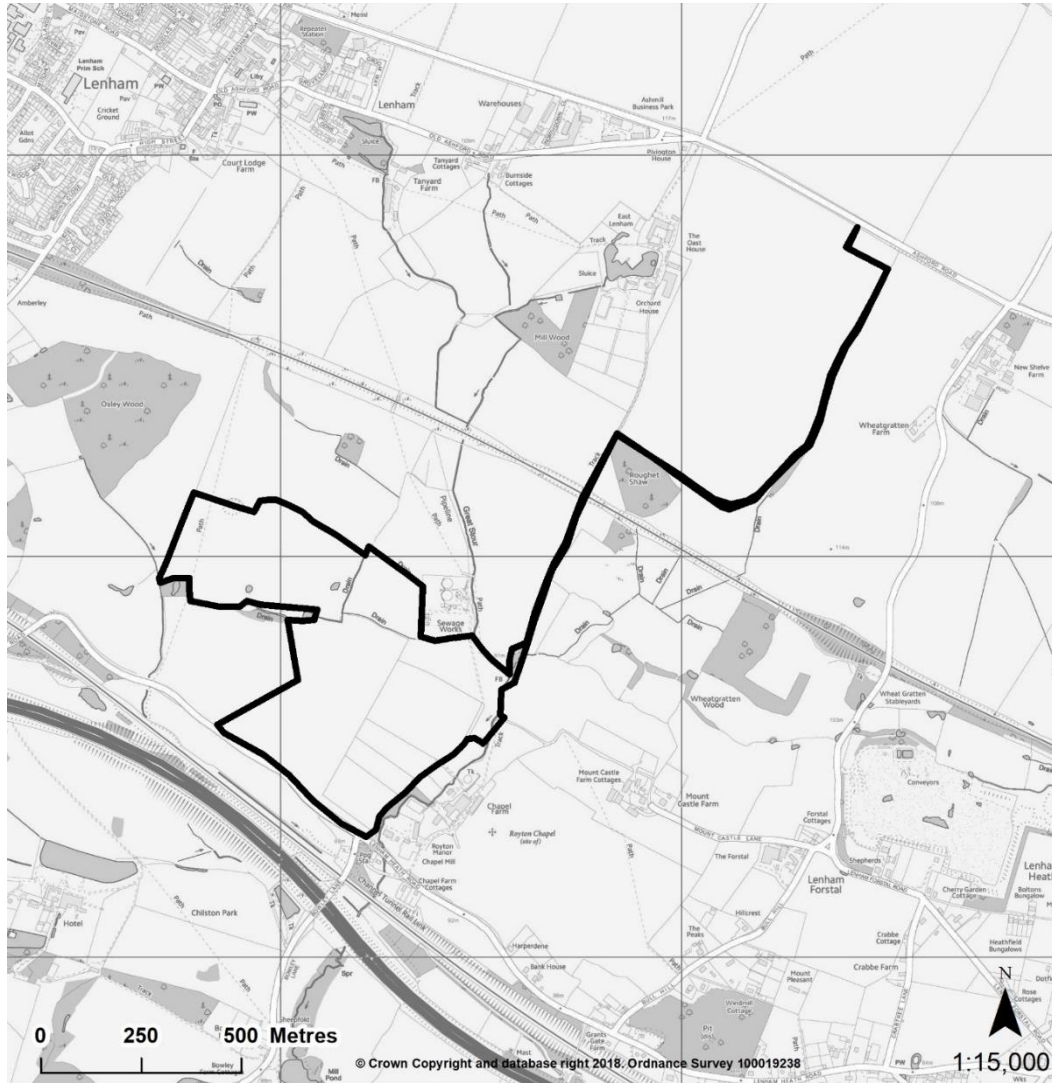
M3: Chapel Farm, Lenham - Soft Sand

Initial Site Location Plan as Originally Promoted



Site Location Plan as revised September 2018 - (Chapel Farm West, Lenham)

Note that the eastern parcel has been withdrawn by the promoter



1.0 Matters addressed by Detailed Technical Assessment

Initial Assessment

As set out in section 3 of this report, the initial assessment of the site¹ identified a number of matters which would require particular consideration, these were:

- Impact on landscape and particularly the Kent Downs Area of Outstanding Natural Beauty (AONB)
- Impact on biodiversity
- Feasibility of new access and impact of this on the highway network
- Impact on heritage, both archaeology and historic built environment
- Impact on Public Rights of Way (PROWs)
- Loss of grade 3 quality soil
- Impact on services and utilities such as the railway line and the wastewater treatment works (WWTW)
- Impact on local amenity
- Cumulative impact with other development in the area, including other quarrying operations and developments planned by Maidstone Borough Council.

Matters Raised during the Options Consultation

The matters raised during the public consultation on this site are summarised below.

Views of Key Organisations

A summary of the responses from key organisations, including statutory consultees, is set out below which sets out the nature and extent of the concerns of such consultees especially with regard to the matters listed above. It should be noted that the views expressed were received prior to the withdrawal of the eastern part of the promoted site and therefore relate to the site as originally promoted.

Environment Agency (EA)

Any future application will need to be accompanied by an Environmental Impact Assessment with emphasis towards demonstrating the relationship between the upper reaches of the Great Stour (including its associated tributaries, both ephemeral and perennial) during the site's operation and subsequent restoration. Appropriate mitigation measures, substantiated through a detailed programme of monitoring, will be necessary to demonstrate that the workings will not have a detrimental impact on the following:

- Hydraulic continuity between those reaches of the Great Stour and associated tributaries, if proven to be in part dependent on groundwater baseflow originating from the adjoining aquifer (Folkestone Formation).
- The hydraulic integrity of the river is not compromised. In particular, the proposed plans will need to recognise the function of the foremost transient reaches of the Great Stour, which are dependent on both chalk escarpment seepage and surface runoff contributions, where

¹ See Mineral Site Selection – Initial Assessment - Stages 1 and 2 of the Site Identification and Selection Methodology, November 2017 and reproduced in section 2 and 3 of this document

underlain by Gault Clay to the immediate north of Chapel Farm. Any submission will need to account for this 'contribution', and the plans cannot allow the Great Stour to become hydraulically 'isolated' from its headwaters, irrespective of whether those watercourses are quantified as ephemeral.

- The underlining Sandgate Formation is not compromised, especially if the Formation is shown to be acting as an aquiclude at Chapel Farm, and within the immediate vicinity. Such a response is required to protect the Hythe Formation, which is classified as a major water resources aquifer unit.

Other EA comments:

- Lenham WWTW is immediately upstream of the proposed workings, which has a potential relevance given that the discharge will be dependent on flow.
- A licence would be required from the Environment Agency should there be a requirement to dewater the site.

Natural England – The site is in proximity to two SSSI's designated for their geological interest. Their distance from the site means it is unlikely to have an impact however advice should be sought.

The proposed allocation is in close proximity to the Kent Downs AONB and the proposal should be assessed carefully to determine whether the development would cause significant impact or harm. Views of the AONB unit should be taken into consideration.

If the proposal will result in the loss of the Ancient Woodland and partial loss of deciduous woodland habitat, it must be demonstrated that there are no alternative sources of the material from sites with less environmental impacts.

Highways England

Some sections of the Strategic Road Network (SRN) within Kent are currently congested, particularly during peak hours and at other times operate under considerable levels of stress. Accordingly, the construction and operational impacts of the identified Minerals sites on the SRN need to be considered, both individually and cumulatively in order to for us to be satisfied that the proposals will not materially affect the safety, reliability and/or operation of the SRN (the tests set out in DfT C2/13 and DCLG NPPF para 32).

No specific comment on Chapel Farm.

Historic England

No specific comment on Chapel Farm. Advice should be sought from county council specialist advisors.

Surrey County Council - Supports inclusion of two soft sand sites as this will give a surplus of soft sand over the plan period and recognises that soft sand supplies in Kent are relatively abundant whereas other parts of the southeast are constrained by protective designations such as AONBs and National Parks.

East Sussex County Council (ESCC) - Paragraph 2.12 of the Kent Minerals Sites Plan (Options document) recognises the role that Kent soft sand plays in the South East of England and states that the proposed two soft sand sites would provide a surplus which may help meet increasing demand in other areas and for exports. There is a shortage of soft sand within the South East, all of the soft

sand within East Sussex is within the South Downs National Park which is highly constrained.

In the absence of sources to meet the constructional needs of East Sussex within East Sussex, it is hoped imports of soft sand from Kent can continue. ESCC Strongly supports the two sites put forward for allocation.

West Sussex County Council (WSSC) - pleased to note that two suitable sites have been identified for allocation, which will meet the calculated shortfall of 1.9 million tonnes as set out in Kent's LAA. The sites identified would provide around 7.1mt, therefore a surplus of around 5 million tonnes of soft sand. A surplus allocation in Kent would provide some certainty that the shortfall in soft sand supplies in West Sussex could be met from beyond West Sussex where the resource is constrained by the South Downs National Park.

Due to the unique constraints in the South East, allocation of the two sites (Chapel Farm & West Malling) would be justified as it would reduce reliance as a whole in the South East of extraction from protected areas, such as the South Downs National Park. NPPF Paragraph 145 requires MPAs to make provision, taking account of the advice of the AWP. The South East AMR shows that there are supply issues in the South East, therefore it would be justified to consider allocating a surplus through the Kent Mineral Sites Plan.

South Downs National Park (SDNPA) – The key issue is the provision of soft sand as the main source of sand is within the SDNP and heavily constrained. SDNPA is keen to work with authorities in the wider area to ensure that soft sand is identified and able to be worked in the most sustainable locations.

In line with national policy and guidance, particularly NPPF paragraphs 114, 115 and 116 and the additional guidance in the PPG, the SDNPA supports:

- the statements included in paragraph 2.12 about the relative abundance of soft sand within Kent and the constraint on resources particularly within national parks; and
- the proposed allocation for two soft sand sites within the proposed options for the KCC Minerals Plan.

Maidstone Borough Council – Maidstone BC identifies Lenham as a “broad location” for some 1000 dwellings to be delivered from 2021 onwards. Lenham Parish Council is also preparing a Neighbourhood Plan which will include site specific allocations for development. Impact of traffic movements on the A20 should therefore take account of the planned growth for the area.

The quarrying activities or the proposed haul road could be extremely detrimental to the Ancient Woodland and impacts need to be assessed and avoided if possible including consideration of a buffer. A felling licence for coppicing of East Lenham Roughett was granted in 2012 which indicates that the woodland is currently being appropriately managed to optimise its biodiversity value and longevity.

Lenham Heath & Chilston Park Local Wildlife Site (LWS) is adjacent to the proposed site, as is Bull Heath Pit LWS. Proposals must be assessed for any adverse impacts on these wildlife sites, including through disturbance caused by noise and traffic. There is also a stretch of trees within the LWS which are subject to a Tree Preservation Order (TPO).

The nearby listed buildings include Royton Manor (Grade II*) and Chapel Mill (II) (both situated between the eastern and western segments of the site), Vine House (II) (at the junction of Lenham

Heath Rd and Bull Hill) and Mount Castle Farm Cottage (II) (north of the site). If the extraction is shallow, open–cast then this may not have necessarily permanent implications for the listed buildings or their setting. Once extraction has been completed, the land in question may be backfilled and re-cultivated and re-landscaped to a high standard, secured via a legal agreement. Any re-landscaping should precisely attain the same contours in the land that exist today; improved biodiversity may also eventually be secured.

Extraction must not extend into established property boundaries or curtilages and should be confined to the interior spaces of the open fields only. Mature plantings or historic landscape features should also be avoided and worked around. There is the prospect of an adverse impact on the remains of a chapel which are denoted in the eastern field. The chapel site should remain untouched, and an appropriate boundary for this will need to be established. The chapel is not just a stand-alone asset and is very much linked to the adjacent properties, and to the significance of the landscape in which it sits.

Disturbance to the adjacent listed buildings and their low-specification foundations due to quarrying at the site should be considered as well as impacts caused by heavy lorries on footings and poorly bonded masonry that often characterises vernacular buildings. Heavier machinery (30 tons) could be accommodated within the site and away from properties, and a management agreement could be drawn up to this end.

Both the eastern and western segments of the site are crossed by PROWs which would require diversion. The council's records also show the land to be of Grade 3 agricultural quality and this may require further site-specific assessment of its quality and the significance of any loss.

Lenham Parish Council

Concerns raised were those submitted in 2010 during an earlier consultation on mineral development in this location which suggested there would be adverse impacts on the following:

- Kent Downs AONB
- Listed buildings and registered parks and gardens
- Feature of archaeological interest
- Public Rights of Way
- Ancient Woodland
- Agricultural land
- A Site of Nature Conservation Interest

Southern Water – Lenham WWTW is adjacent to the north boundary of the site, the access road runs through the proposed site. Operational equipment at Lenham WWTW is in continual active use, therefore it is essential to maintain unhindered access to the WWTW via its access road at all times. Sewerage infrastructure also crosses the site which connects the southern areas of the catchment of the WWTW and requires protection. Diversion may be possible at the operator's expense, provided a feasible route is available. Further engagement should be sought with Southern Water as the development proposal progresses. Provided that appropriate policy provisions are made, this is not considered to be a fundamental constraint.

Public Health England– Risk of crystalline silica (quartz) exposure to members of the public is much lower than occupational exposure. Non-occupational exposure to quartz can occur through the use of certain cosmetics, paints, pet litter, and other household or craft items.

On mineral sites which are well managed with control measures in place to manage environmental concentrations of particulate matter off-site, concentrations remain below those associated with long or short-term impacts. However, additional detail would be needed (such as that which would be available at planning application stage) before further, site specific comments can be made.

Kent Downs AONB Unit – The site is within the setting of the Kent Downs AONB. Views to the south from the AONB were a principal reason for the designation and are a feature which merits protection – this means the impact of proposals on views from the AONB need careful consideration.

The part of the site west of Chapel Farm and the proposed haul route is particularly prominent from the AONB to the north, the North Downs Way national trail and other public rights of way and roads to the north of the A20. Due to the topography of the land and intervening vegetation the eastern part of the site is less prominent in views, although still partially visible.

A visual impact assessment should be undertaken prior to allocation to assess whether impacts can be satisfactorily mitigated.

Any application should carefully consider mitigating the impact of the haul route in addition to the area of minerals with careful consideration of method of working and phased restoration, to ensure that a large area is not open at any one time.

British Archaeological Trust - There appear to be extensive multi-period archaeological remains within the site and full investigations would be required at planning application stage and should include trial trenching which could lead to full excavation on some or all of the site. Consideration should also be given to the possibility that there might be archaeological deposits of sufficient importance to justify preservation in situ.

British Horse Society – The site is located on an Other Route with Public Access (ORPA) (which historic evidence suggests is an old road), it is adopted at each end but unadopted in the middle. This particular route has strategic importance with regard to vulnerable road users as it would provide one of the few safer links connecting the North Downs Way to the north with the lanes network to the south. This part of the Weald is in extremely short supply of PROWs so access to the Downs is of key importance. It is suggested that the route be designated as a restricted byway. It is understood that part of this route will form part of the quarry haul road, this is not ideal for leisure users, but local arrangements could be made on site as and when the haul route is in operation.

CPRE – Object to the allocation of the site for the following reasons:

- Impact on the Kent Downs AONB
- Adverse impact on listed buildings
- Disruption to PROW network
- Loss of grade 1 and 2 agricultural soil
- Adverse impact on archaeology
- Need for the material has not been justified
- Impact on the water environment and specifically the River Stour

Kent Wildlife Trust – Object to the site in the absence of information to demonstrate there will be no negative impact on the Ancient Woodland and the LWS “MA66 Lenham Heath and Chilston Park”.

RSPB – The site will result in the direct loss of Local Wildlife Sites and therefore share the Kent Wildlife Trust’s views on the site.

Forestry Commission – Site assessment has identified:

- Ancient Woodland is situated on the site
- Adjoining uses include nearby woodlands
- Ancient Woodland adjacent to the proposed route of the suggested haul road.

KCC Advisors

In undertaking this detailed assessment, advice has been sought from a range of technical specialists who advise the County Council on planning matters. This includes advice on biodiversity, Public Rights of Way, noise, air quality, landscape, heritage, water resources, stability and highway and transportation interests. The views received have informed the assessment and the discussion section below. Several related standalone specialist reports have been prepared and have been published as background documents. The work has also been informed by the Project’s Sustainability Appraisal work.

Views of Elected Representatives

Shellina Prendergast (County Member)

Considered that the site would result in adverse impacts affecting the following:

- Kent Downs AONB and wider landscape
- Local amenity due to noise and dust
- Highway – in particular the A20
- Ecology – in particular the River Stour
- Lenham Sewage Works
- Quality of agricultural land
- Heritage assets

Views of Local Residents

Concerns raised by local residents during the options consultation included:

- Impact on local amenity by way of noise, dust and vibrations
- Increased strain on local infrastructure such as the WWTW
- Impact on Ancient Woodland
- Impact on flora and fauna
- Significant archaeological remains within the site
- Proximity to listed buildings and Chilston Park (historic parks and gardens)
- Impact on equestrian activities
- Loss of the “Heaths Countryside Corridor” – a local community initiated and managed project
- Cumulative impact with other developments, Maidstone BC local plan has allocated housing in Lenham and surrounding villages
- Proximity to Kent Downs AONB
- Impact on PROWs, North Downs Way, Stour Valley Walk and Pilgrims Way.
- Loss of grade 2/3 agricultural soil
- Highways infrastructure not appropriate - should utilise rail sidings
- Impact on traffic congestion
- Impact on road safety for vehicles and pedestrians
- Unknown future demand of soft sand quantity and unknown quality of material
- Concerns over restoring land to lower level
- Impact on water environment including the Great Stour River

2.0 Sustainability Appraisal

In accordance with statutory requirements a sustainability appraisal (SA) has been completed which considers how well the site performs against certain sustainability objectives. The detailed results of the SA are set out in a separate document.

3.0 Discussion

This section addresses matters raised above as well as those identified during the initial site assessment which are key to assessing the suitability of the site for allocation in the Kent Minerals Sites Plan.

Amenity

The promoted site has been assessed against policy DM11 of the KMWLP which requires that mineral development should not generate unacceptable impacts from noise, dust, vibration, odour, emissions, illumination, visual intrusion, traffic or exposure to health risks and associated damage to the qualities of life and wellbeing to communities and the environment. Similar policy protection is provided within the NPPF.

The location of the site is remote and rural and away from any Air Quality Management Areas (AQMAs) and any significant area of residential development. There are a small number of residential properties which surround the deallocated parcel of land to the east of Chapel Farm, these are the properties on Lenham Heath Road, Bull Hill and Mount Castle Lane. The nearest settlement is Lenham Heath which is a hamlet east of the allocation. The closest residential property to the allocated site (the western parcel) is approximately 150m away and the distance from any excavation would likely be further in light of the anticipated stand-offs surrounding the Chapel Farm heritage feature.

The noise climate is likely to be heavily influenced by transportation noise, particularly from the M20 but also from Lenham Heath Road and the two railway lines. Therefore, ambient noise is likely to be very low which makes mitigation more achievable.

Sources of air pollution are likely to be background dusts from agriculture, some transboundary air pollution and NO₂ particulates from the M20 and local road traffic. Public Health England have raised no specific objection to the site, advising that on mineral sites which are well managed with control measures in place to manage environmental concentrations of particulate matter off-site, concentrations remain below those associated with long or short-term impacts. However, additional detail would be needed (such as that which would be available at planning application stage) before further, site specific comments can be made.

Properties could potentially be impacted by noise, dust and vibrations resulting from operations at the site and HGV emissions but, with mitigation, it is considered that impacts will not reach unacceptable levels. The level of impacts to receptors east of the site will be significantly reduced due to the eastern parcel being removed from the allocation. In light of its distance from the site it is considered unlikely that Lenham Heath will experience unacceptable impacts. Mitigation against any adverse air quality impacts should be fully achievable, however the Maidstone AQMA (to the east of Maidstone Town) could be a constraint depending on the type and number of HGVs that access it.

The County Council's assessment of the potential amenity impacts concludes that mitigation would be achievable. It is therefore concluded that any amenity impacts associated with the operations of the site can be satisfactorily mitigated in a manner similar to other quarrying operations in the vicinity of residential development.

Highways and Transportation

The proposed site has been assessed against policy DM13 of the KMWLP which requires that minerals development satisfy that the access arrangements are not detrimental to road safety, that the highway network is able to accommodate the traffic flows and will not give rise to unacceptable impact on the environment or local community and that emission control and reduction measures are proposed, particularly within an AQMA. Similar policy support is provided for within the NPPF.

The site does not benefit from direct access to the highway network and requires a new access to be created. This proposed access is shown in the site location plan; it spans north from the proposed working area, across the railway line, and meets the A20 Ashford Road. In the initial site submission, the access track was proposed to line the edge of the land in the control of the landowner. This was deemed to be unacceptable as it did not allow sufficient room for visibility splays to be maintained. The proposed access has been moved westward so that the visibility splays can be accommodated by land in the control of the landowner. Utilisation of the railway is not considered practical by the site promoter but this would require further more detailed consideration at the planning application stage.

The Local Highway Authority raises no objection to the principle of the development. It advises that the A20 is part of the primary route network which is appropriate to accommodate HGV movements. It is not considered that the level of additional vehicle movements would likely be very low and that the A20 to accommodate the additional traffic without adverse impacts. A new access onto the A20 would require careful design with appropriate visibility splays. The new access directly onto the A20 will negate any need for access to the site via rural roads in the area.

In terms of cumulative impacts on the highway network with other planned development in the area (For example, the village of Lenham and nearby Harrietsham are proposed to be expanded within Maidstone Borough Council's Local Plan (adopted October 2017)), it is considered that the development would not result in the addition of significant vehicle numbers to the highway network. Further information regarding forecasts and impact on the road network would be required and assessed as part of a transport assessment in support of a planning application.

Although invited, no specific concerns have been raised by comments have been received from Highways England on this site.

In light of the above, it is considered that the site can be operated in a way which would not cause an unacceptable adverse impact on the highway network.

Biodiversity

The proposed site has been assessed against policy DM3 of the KMWLP which requires that proposals do not result in unacceptable adverse impacts on Kent's important biodiversity assets and SSSIs. This policy was prepared in line with the NPPF which sets out similar criteria.

The site is predominately arable, and the fields are surrounded by hedgerows and there is a small copse (with ponds) in the west of the site which is the feature of most ecological interest. An area of

Ancient Woodland (Roughetts Shaw) sits to the north of the area of working next to the proposed access track. The site is located within the upper reaches of the Great Stour. Lenham Quarry SSSI is approximately 800m from the site and Hart Hill SSSI is 2.5km away; both are designated for their geological interest. Lenham Heath & Chilston Park and Bull Heath Pit Local Wildlife Sites (LWS) are adjacent to the proposed site. Trees within the LWS are subject to a Tree Preservation Order (TPO).

KCC Biodiversity officers advised that should the site boundary include the Ancient Woodland, and should it be disrupted in anyway, this would afford the site a very high level of ecological constraint. Other bodies such as Natural England, Maidstone Borough Council and Kent Wildlife Trust objected or also raised concern about this matter. Given the concern, the Ancient Woodland has now been removed from the site boundary. However, the haul road will run adjacent, so policy provision must be made to ensure that no negative impacts occur as an indirect result of the development. This will include maintaining a buffer of at least 15 metres. The woodland copse to the west of the site would be similarly protected.

The Environment Agency objected to the site due to lack of information on how the operations will impact the ecology of the River Stour. However, these comments were based on the eastern parcel of the site still being included. Now that the eastern parcel has been removed, there will be no direct impact on the River.

The nature of the SSSIs and their distance from the site means that they are unlikely to be adversely impacted but this is a matter that will require further consideration if a planning application were to be made.

A number of BAP Priority Habitats and LWSs are located adjacent to the site but these do not present any major level of ecological concern that cannot be dealt with as part of the planning application process.

The proposed low-level restoration of the site will provide an opportunity to create habitat and enhance the biodiversity of the area.

Should an application come forward there will be a need for appropriate surveys of the ecology to be carried out, and specialist advice will be sought with regard to working arrangements and restoration proposals to ensure that features are not adversely impacted and, ultimately biodiversity enhancements are secured. In principle, it is considered there to be no material reason to not allocate the site due to adverse impacts on biodiversity.

Historic Environment

The proposed site has been assessed against policy DM5 of the KMWLP which requires that there should be no unacceptable adverse impact on Kent's historic environment taking account of mitigation and compensation and heritage assets be conserved in a manner appropriate to their significance. This policy was prepared in line with the NPPF which sets out similar criteria.

Nearby listed buildings include Royton Manor (Grade II*) and Chapel Mill (II) (both situated between the eastern and western segments of the site), Vine House (II) (at the junction of Lenham Heath Rd and Bull Hill) and Mount Castle Farm Cottage (II) (north of the site).

Cultural Heritage would need to be addressed through a multi-phased programme both desk-based and field work, with mitigation fully informed and appropriate to the significance of the heritage

assets affected. Taking account of the removal of eastern parcel from the allocation, it is considered that mitigation is possible to ensure local heritage assets, particularly the listed buildings within close proximity to the site, are protected from unacceptable impacts.

Archaeology

KCC Archaeological officers raised concern over the site as originally promoted as they consider that the archaeological interest, is so significant that it would be necessary to preserve the feature in situ and that impacts may not be mitigatable to an acceptable level. None of the land in this area would therefore be suitable for extraction. In light of this the site promoter has formally withdrawn this parcel so that only the land to the west of the Chapel Farm complex be included.

Historic England has been consulted on the proposal to allocate this site for mineral working and it has not raised any specific concerns.

With the omission of the eastern parcel of land, it is considered that the potential for archaeology within the remainder of the site is not sufficient to justify non-allocation.

Water Environment

The proposed site has been assessed against policy DM10 of the KMWLP which requires that development should result in no deterioration and improved ecological status of all waterbodies within the site and/or hydrologically connected to the site. This policy was prepared in line with the NPPF.

The site has no impact on flood risk.

There is a watercourse to the northern part of the site which forms part of the Great Stour. The relationship with this will need to be fully explored as part of an EIA and monitored throughout the life of the site.

It is considered that any impact on the water environment can be satisfactorily addressed as part of the planning application process through further consultation with the EA and other consultees where necessary.

Land Stability

The proposed site has been assessed against policy DM18 of the KMWLP which expects that planning permission for development will not be granted unless it is demonstrated that development will not result in land instability. This policy was prepared in line with the NPPF.

The County Council's land stability report includes consideration of the site's proximity to sensitive receptors such as sewage lines, electricity pylons and the railway line. It is considered that impacts on these features can be mitigated with appropriate standoffs and diversion where necessary. A suggested standoff is 45 metres but this will be determined by quantitative slope stability assessment to be submitted with any planning application.

Soil Quality

The proposed site has been assessed against policy DM1 of the KMWLP which requires that proposals demonstrate that there is no unacceptable adverse impact on the use of other land for other purposes. This policy was prepared in line with the NPPF.

Natural England's Agricultural Land Classification Map states that the site contains Grade 3 (Good to

Moderate) soil. It is considered that while mineral extraction would result in a loss of this soil such a loss would be temporary as the site would be restored to agricultural land.

PROW

The proposed site has been assessed against policy DM14 of the KMWLP which requires that where proposals impact a PROW, they will only be permitted if; satisfactory prior provisions for diversion of the PROW can be made which are convenient and safe for the PROWs users, an acceptable alternative route can be provided during operations and restoration, and opportunities to improve countryside access are taken wherever possible. This policy was prepared in line with the NPPF which sets out similar criteria.

There were several PROWs running through the eastern parcel of the site, however as this has been withdrawn, the allocation would not have any impacts on access provided by these PROWs.

Other footpaths run adjacent to the west of the site, and to the north, with one crossing the proposed haul route. It is considered that diversions and screening can mitigate any impact on the PROW network as necessary.

Services and Utilities

The proposed site has been assessed against policy DM11 of the KMWLP which requires that proposals demonstrate that there is no unacceptable adverse impact on the use of other land for other purposes. This policy was prepared in line with the NPPF.

Lenham sewage works are situated adjacent to the site and a sewer line cuts through the site. Consultation with Southern Water has not revealed any insuperable obstacles to development of the site which arise as a result of this infrastructure. Power lines cross the western section of the site, but this area is no longer proposed for allocation.

Landscape and Visual Amenity

The proposed site has been assessed against policy DM2 of the KMWLP which aims to ensure that there are no unacceptable adverse impacts on important landscapes, including the Kent Downs AONB, and sets out the circumstances where impacts upon them would be acceptable. Policy DM2 notes that proposals outside, but within the setting of an AONB will be considered having regard to the effect on the purpose of conserving and enhancing the natural beauty of the AONB. This policy was prepared in line with the NPPF which sets out similar criteria. Impacts on visual amenity are assessed against policy DM11 that seeks to ensure that minerals development is unlikely to generate unacceptable adverse impacts from visual intrusion.

The site is approximately 1.5km to the south of the Kent Downs AONB and is considered be within its setting.

A landscape assessment has been carried out which concluded that whilst mineral working will have an impact on the long-range views from the AONB, these will likely not be significant.

The proposal was also assessed as likely to have an impact on the views from PROWs and residential properties surrounding the site. However, this was based on the site when the eastern parcel was included. As this has now been removed, residential properties are now further away from any mineral working and so the level of impact will be significantly reduced.

The Kent Downs AONB Unit stated that subject to the requirement for mitigation being included in

any policy provision for the site, they did not object.

Mitigation would be provided by existing screening, including hedges on the boundaries of the site, and this could be enhanced with additional planting including trees where appropriate. In particular screening should address the exposed properties along Lenham Heath Road.

Subject to considerable attention being given to inclusion of appropriate and acceptable mitigation, it is considered that the site could be developed without causing unacceptable impacts on the landscape.

Need for the mineral

The proposed site has been assessed against policy CSM2 that sets out the requirements for the supply of soft sand and silica sand. This policy was prepared in line with the NPPF.

Calculations regarding supply and demand based on 2017 data, taken together with an 18-year landbank, suggest the shortfall is now in the order of 2.5mt for soft sand². The yield from this site is estimated to be 3.2mt.

The site is part of the Folkestone Formation (part of the Lower Greensand Group) and the economically important aggregate yielding geological unit, a loosely consolidated to unconsolidated marine (ancient beach) sand that is a unique part of the geological succession in Kent and the wider South East. The material is generally free of contaminants (in its purest form it is referred to as 'silica sand') and is of a particle shape and size consistency that makes it suitable as a mortar sand and its flow characteristics are such that it is often referred to a 'soft sand', it is also used as a constituent in coated stone production, or asphalts.

An alternative to the land-won soft sands, that will provide a steady and adequate supply as required by the National Planning Policy Framework, is unavailable at this time.

Neighbouring authorities support the allocation of sites suitable for the development of soft sand on the basis that this would help address a wider issue that the vast majority of soft sand in the unconstrained south east is being progressively exhausted, and much of what remains is constrained by designations such as AONB's or National Parks (such as the South Downs).

At this time, however there is no evidenced need to demonstrate a case to make significant over provision in Kent to meet a regional need.

Cumulative Impact

The proposed site has been assessed against policy DM12 of the KMWLP which expects that mineral development should not result in an unacceptable adverse, cumulative impact on the environment or communities. This policy was prepared in line with the NPPF which sets out similar criteria.

It is recognised that mineral working has taken place in the surrounding area in the past. The KMWLP notes that cumulative impacts may occur where separate developments occur near to each other and there is a need for such impacts to be taken into account. The assessment of potential impacts which could arise from development in this location has not revealed that unacceptable cumulative impacts would arise, however cumulative impacts will require further consideration if a proposal were to come forward.

² See Soft Sand Topic Paper 2018

4.0 Conclusion - M3: Chapel Farm (West Site), Lenham

It is considered that the significant amendment to the site boundary (removal of the eastern parcel) addresses many of the issues associated with mineral working in this location including access, biodiversity and archaeology. The impact on amenity will also be reduced as residential properties are now further away from the proposed mineral working.

It is considered that other matters can be addressed and satisfactorily mitigated through the normal planning application process, seeking further views of consultees and technical advice where appropriate. It is noted that the site is currently allocated for mineral working by saved policy CA6 in the Kent Minerals Local Plan: Construction Aggregates 1993.

Therefore, it is considered that the site should be allocated with a requirement that any application demonstrates compliance with the development management considerations, with particular reference to:

Biodiversity

- At least a 15 metre buffer to be maintained around the Ancient Woodland at all times
- Lenham Quarry SSSI is approximately 800m from the site and Hart Hill SSSI is 2.5km away; both are designated for their geological interest. Lenham Heath & Chilston Park and Bull Heath Pit Local Wildlife Sites (LWS) are adjacent to the proposed site. Evidence to be submitted with any planning application to confirm that the LWS and SSSIs will not be adversely impacted
- Woodland copse to the north-west corner of the site must be maintained

Landscape

- Detailed information setting out proposed mitigation of visual impacts and demonstrating that the setting of the Kent Downs AONB will not be adversely impacted

Heritage

Nearby listed buildings include Royton Manor (Grade II*) and Chapel Mill (II), Vine House (II) and Mount Castle Farm Cottage (II). Consideration and mitigation of impacts on heritage assets including listed buildings is required.

Water Resources

- Any application will need to be accompanied by an EIA with particular emphasis on the site's relationship and impact on the Great Stour
- Appropriate mitigation measures and monitoring will need to be implemented as per the request of the Environment Agency, to demonstrate the following:
 - Hydraulic continuity between those reaches of the Great Stour and associated tributaries, if proven to be in part dependent on groundwater baseflow originating from the adjoining aquifer (Folkestone Formation).
 - The hydraulic integrity of the river is not compromised. In particular, the proposed plans will need to recognise the function of the foremost transient reaches of the Great Stour, which are dependent on both chalk escarpment seepage and surface runoff contributions, where underlain by Gault Clay to the immediate north of Chapel Farm. Any submission will need to account for this 'contribution', and the plans cannot allow the Great Stour to become hydraulically 'isolated' from its headwaters, irrespective of whether those watercourses are quantified as ephemeral.

- The underlining Sandgate Formation is not compromised, especially if the Formation is shown to be acting as an aquiclude at Chapel Farm, and within the immediate vicinity. Such a response is required to protect the Hythe Formation, which is classified as a major water resources aquifer unit.

Transport and Access

- A detailed transport assessment to demonstrate compliance with KMWLP Policy DM13.
- The Transport Assessment should consider ability to access the site via rail, impacts on the A20 and the Maidstone AQMA and show how any potential adverse impacts on this AQMA will be mitigated.

Utilities

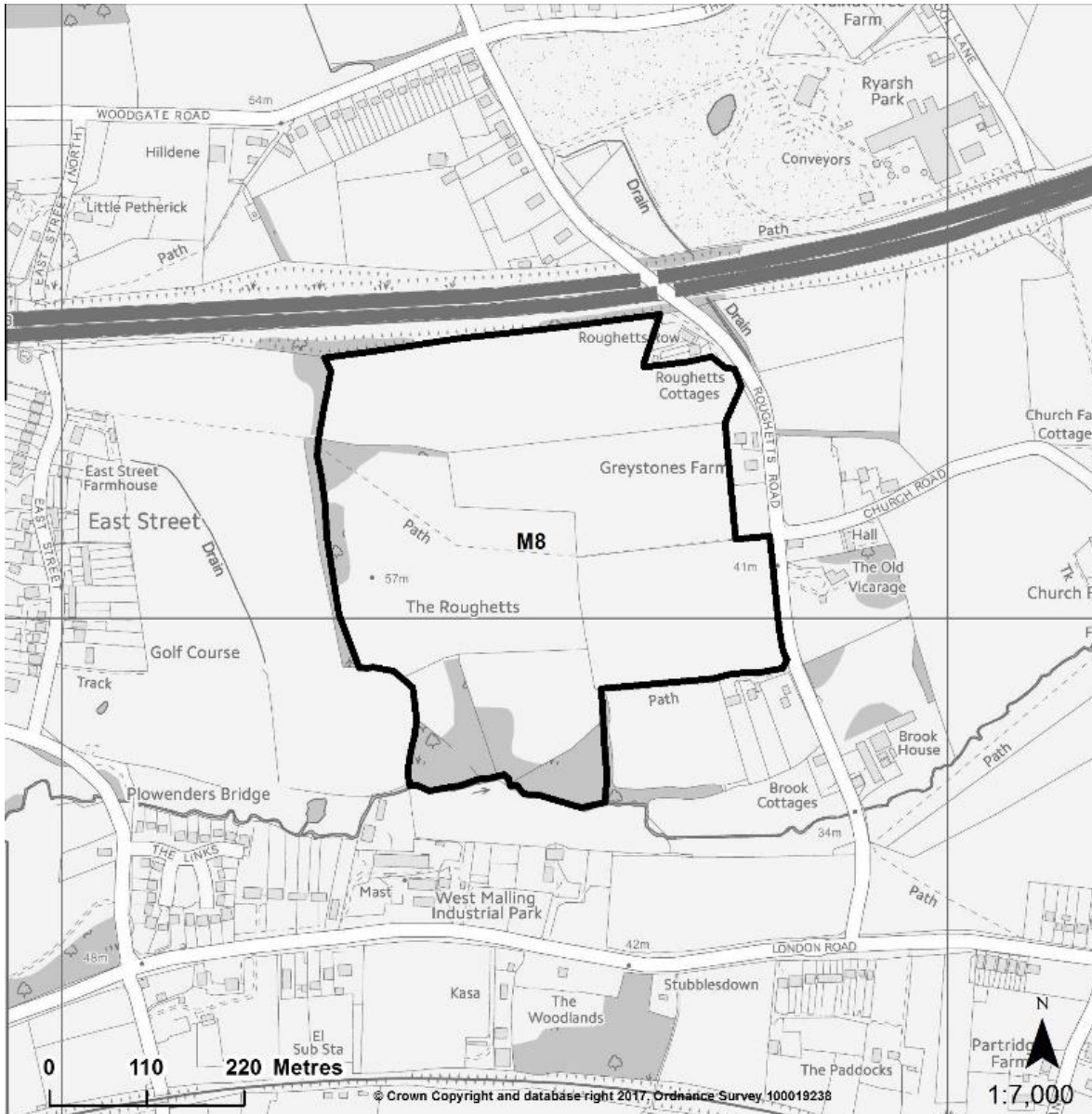
- Demonstration that sensitive receptors such as sewage lines, electricity pylons and the railway lines will not be affected by land instability caused by the development.
- The functioning of the Lenham WWTW and other sewerage infrastructure must not be adversely impacted

Health and Amenity

- Compliance with policy DM11 of the Kent Minerals and Waste Local Plan in respect of health and amenity.
- A lighting, noise, dust, and vibration management plan should be completed, setting out how unacceptable impacts will be avoided. A detailed dust assessment and management plan should be submitted which follows best practice and any national Government guidance (e.g. Planning Practice Guidance)

M8: West Malling Sandpit, Ryarsh - Soft Sand (and 0.5mt silica sand)

Site Location Plan



M8: West Malling Sandpit, Ryarsh - Promoter's Indicative Proposal for Working the Site



1.0 Matters addressed by Detailed Technical Assessment

Matters Identified by the Initial Site Assessment

As set out in section 3 of this report, the initial assessment of the site identified a number of matters which would require further consideration, these were:

- Impact on landscape and the Kent Downs Area of Outstanding Natural Beauty (AONB)
- Impact on biodiversity
- Impact on historic environment
- Impact on water environment
- Loss of grade 3 quality soil

- Impact on local amenity
- Impact on the Green Belt
- Impact on Public Rights of Way (PROWs)
- Impact on utilities/services
- Access to the site and associated impacts on the highway network
- Cumulative impacts with other developments and quarrying operations within the area

Matters Raised During the Options Consultation

The matters raised during the public consultation on this site are summarised below.

Views of key organisations

A summary of the responses from key organisations, including statutory consultees, is set out below which sets out the nature and extent of the concerns of such consultees especially with regard to the matters listed above.

Environment Agency – No objection in principle.

The site is located in SPZ3, so waste activities should be avoided.

As the proposal includes the importation of inert waste to restore the site to existing levels, this will require an environmental permit.

No concerns regarding flood risk.

Any application would need to be accompanied by an Environmental Impact Assessment with emphasis towards demonstrating the relationship between the reach of the Leybourne Stream that bounds the southern flank of the proposed working.

Appropriate mitigation measures, substantiated through a detailed programme of monitoring, will be necessary to demonstrate that the workings will not have a detrimental impact on the following:

- Hydraulic continuity between susceptible reaches of the Leybourne Stream, if proven to be in part dependent on groundwater baseflow originating from the adjoining aquifer (Folkestone formation)
- The underlining Sandgate Formation is not compromised, especially if the Formation is shown to be acting as aquiclude at West Malling Sandpit, and within the immediate vicinity. Such a response is required to protect the Hythe Formation, which is classified as a major water resources aquifer unit.

Dependent on the proposed ways of working, Abstraction License 9/40/02/0020/SR potentially could be at risk of derogation, being located approximately 250m to the north west of the northern most curtilage of the quarry.

A licence should be sought from the Environment Agency should there be a requirement to dewater the site.

Natural England – The site is within the setting of the Kent Downs AONB, therefore views of the AONB unit should be taken into consideration. A Landscape and Visual Impact Assessment (LVIA) will be required with any planning application.

The site is within the Impact Risk Zone (IRZ) for the Trottiscliffe Meadows SSSI, therefore extraction would need to avoid any hydrological impacts on the SSSI.

Highways England - Would have concern if the site affected the drainage, land or structure of the Strategic Route Network.

Historic England - No specific comment

Public Health England– Risk of crystalline silica (quartz) exposure to members of the public is much lower than occupational exposure. Non-occupational exposure to quartz can occur through the use of certain cosmetics, paints, pet litter, and other household or craft items.

On mineral sites which are well managed with control measures in place to manage environmental concentrations of particulate matter off-site, concentrations remain below those associated with long or short-term impacts. However, additional detail is required (such as that which would be available at planning application stage) before further, site specific comments can be made.

Surrey County Council - Supports inclusion of two soft sand sites as this will give a surplus of soft sand over the plan period and recognises that soft sand supplies in Kent are relatively abundant whereas other parts of the southeast are constrained by protective designations such as AONBs and National Parks.

East Sussex County Council (ESCC) - Paragraph 2.12 of the Kent Minerals Sites Plan (Options document) recognises the role that Kent soft sand plays in the South East of England and states that the proposed two soft sand sites would provide a surplus which may help meet increasing demand in other areas and for exports. There is a shortage of soft sand within the South East, all of the soft sand within East Sussex is within the South Downs National Park which is highly constrained.

In the absence of sources to meet the constructional needs of East Sussex within East Sussex, it is hoped imports of soft sand from Kent can continue. ESCC Strongly supports the two sites put forward for allocation.

West Sussex County Council (WSCC) - pleased to note that two suitable sites have been identified for allocation, which will meet the calculated shortfall of 1.9 million tonnes as set out in Kent's LAA. The sites identified would provide around 7.1mt, therefore a surplus of around 5 million tonnes of soft sand. A surplus allocation in Kent would provide some certainty that the shortfall in soft sand supplies in West Sussex could be met from beyond West Sussex where the resource is constrained by the South Downs National Park.

Due to the unique constraints in the South East, allocation of the two sites (Chapel Farm & West Malling) would be justified as it would reduce reliance as a whole in the South East of extraction from protected areas, such as the South Downs National Park. NPPF Paragraph 145 requires MPAs to make provision, taking account of the advice of the AWP. The South East AMR shows that there are supply issues in the South East, therefore it would be justified to consider allocating a surplus through the Kent Mineral Sites Plan.

South Downs National Park (SDNPA) – The key issue is the provision of soft sand as the main source of sand is within the SDNP and heavily constrained. SDNPA is keen to work with authorities in the wider area to ensure that soft sand is identified and able to be worked in the most sustainable locations.

In line with national policy and guidance, particularly NPPF paragraphs 114, 115 and 116 and the additional guidance in the PPG, the SDNPA supports:

- the statements included in paragraph 2.12 about the relative abundance of soft sand within Kent and the constraint on resources particularly within national parks; and
- the proposed allocation for two soft sand sites within the proposed options for the KCC Minerals Plan.

Tonbridge and Malling Brough Council – Noted that minerals can only be worked where they naturally occur and that minerals are an important material for construction.

The site does not conflict with the development strategy in the Borough Council's emerging Local Plan. The following matters should be given particular consideration when deciding whether or not to allocate the site:

- Impact on the amenity of nearby properties by way of noise, dust, vibration and lighting.
- Impact on the local highway network. Including the impacts upon the integrity of properties, pedestrian safety and air quality.
- Impacts on the Biodiversity Action Plan (BAP) habitat, Ancient Woodland and the SSSI.
- Water contamination.
- Impact on the Kent Downs AONB landscape designation

Ryarsh Parish Council – Strong objection on the following grounds:

Adverse impact on traffic:

- Road infrastructure (i.e. country roads) unsuitable to accommodate quarry traffic/HGVs, and the local road network is at full capacity already. This has become worse in recent years since the introduction of new housing developments such as Ryarsh Park and Leybourne Chase.
- Quarry traffic will use Ryarsh and Birling to get to or from the M20 or A20.
- The Roughetts Road and A20 junction is hazardous.
- Roughetts Road is only about 6 metres wide at one point and is too narrow for two lorries to pass safely. Vehicles will travel extremely close to pedestrians on the narrow pavement on Roughetts Road. Better lighting would be required.

Impact on air quality:

- Prevailing south west wind means dust from the sandpit will cover the whole area, including Ryarsh, Ryarsh Park and Leybourne Chase. There will be an unacceptable risk to health of residents due to silica dust e.g. risk of COPD and silicosis.
- Pollution will be caused by lorries travelling to and from the site.

Noise from digging, quarrying and from vehicle movements, especially in the summer and with prevailing winds will affect the locality. The site is so close to residential properties that mitigation to make the site acceptable is impossible. Parts of the village are already experiencing noise levels above WHO/EEA recommended levels.

The site would have an adverse impact on public rights of way which go through site as these will be lost - they are widely used and form a vital connection between Ryarsh and Addington.

There will be adverse cumulative impacts due to other quarries in the area.

The site is within the Green Belt and a quarry is inappropriate development in the Green Belt. TMBC Local Plan Green Belt Study September 2016 states that Ryarsh “retains a rural feel with open fields” and refers to “the smaller nature of the settlement”; “the village is small” and regarding openness has “a generally open landscape with open fields and a lack of urbanising features – a typical rural, Kentish landscape”.

There will be a detrimental impact on the landscape character. The site is within the Kent Downs AONB and would have an adverse impact on its setting.

There will be a detrimental visual impact on the local and wider landscape area. Impacts on views cannot be mitigated by landscaping due to the proximity of neighbouring properties, the A20 and Roughetts Road.

There are nationally important archaeological sites in the area including The Coldrum Stones, Addington Long Barrow and St Michael & All Angels Church in Offham. Quarry will damage heritage assets. St Martin’s Church, Ryarsh is the nearest to the site and will be most impacted. The proposal would affect a number of listed buildings in the vicinity of the site.

There will be adverse impact on the extremely important aquifer on the site.

There will be an adverse impact flora and fauna including ancient and BAP deciduous woodland.

There is no need for soft sand which can be sourced from existing sites and imported via wharves. Alternative materials could also be used. The calculation of need is incorrect. It must be possible to obtain purer silica sand from Surrey.

There is no need for new landfill and creating new voids in new quarries may create filling problems.

Objection to the initial screening assessment

Birling Parish Council – Objects to the potential allocation. The following grounds are raised:

- impact upon the surrounding communities and the locality – traffic, noise, dust, landscape and visual impact, green belt, public rights of way and cumulative impact
- the initial assessment process was flawed
- the extent of need for soft sand has not been fully justified

Addington Parish Council – Objects to the proposal. The following grounds are raised:

- impact of further quarry on local infrastructure and residential amenity is unacceptable
- impact upon heritage, landscape, ancient woodland and local amenity
- air quality impacts
- unacceptable traffic impacts
- need not proven

Kings Hill Parish Council – Strongly objects to the proposal on the following grounds:

- traffic impact
- impact upon amenity – dust, air quality, noise, PROWs and light pollution
- Impact on Green Belt
- Landscape impact

Supports the views of the many who have objected to the proposal

Leybourne Parish Council – Objects to the proposal. The following grounds are raised:

- Environmental Impact including air quality and health
- Inadequate transport infrastructure and impact upon local roads
- Existing traffic problems will be exacerbated

Offham Parish Council – Objection on the following grounds:

- Impacts from dust and health risks to the community
- Unacceptable impact on traffic and local roads
- Supports the objection from Offham Church and the need to protect this historic building

West Malling Parish Council – Concerns raised in respect of need, traffic, pollution and health risks and restoration of the site.

Kent Downs AONB Unit – The site is within the setting of the Kent Downs AONB. Views to the south from the AONB were a principal reason for the designation and are a feature which merits protection – this means the impact of proposals on views from the AONB need careful consideration. While views of the site from the AONB appear relatively limited, a visual impact assessment should be undertaken prior to allocation.

To avoid and minimise impacts on the AONB, appropriate and advanced landscaping would be needed as well as consideration of working methods to ensure a large area does not remain open.

Restoration to agricultural land, including reinstatement of hedgerows and hedgerow trees (to ensure restored levels are comparable with existing) would be supported.

PROW crossing the site which provide access to the AONB will need diversion.

Access to the site should be to/from the south to avoid use of rural lanes within the AONB to the north

CPRE – The allocation of the site is premature pending the outcome of the forthcoming Local Aggregates Assessment (LAA) and soft sand study.

Whilst the omission of extraction adjoining residential properties is welcomed, there is no indication that this part of the site will be safeguarded from extraction indefinitely. This assurance is necessary to avoid negative impacts on the residents.

The site is crossed by two footpaths which originate in a protected open space on the western boundary of the site; the West Malling Golf Club. Restoration should occur in tandem with the extraction to ensure that disruption to the footpaths is minimised. The site should also be restored to original land levels.

There are no details of any plant or buildings which would be required to serve the site. The site is within the Green Belt and whilst mineral extraction is not considered inappropriate development, associated activities such as processing and restoration may impact on the Green Belt's openness and would therefore need to demonstrate that very special circumstances exist to outweigh the harm to the Green Belt.

There is Ancient Woodland to the south of the site. Mitigation would be necessary to ensure that this and the BAP woodland remains intact. The extraction should also not adversely impact the water table which serves the Ancient Woodland.

Forestry Commission – will provide advice at the appropriate time to ensure that the most applicable measures are adopted to minimise and/or compensate for the impacts on Ancient Woodland.

Kent Wildlife Trust - Object to the site in the absence of information which demonstrates that the Ancient Woodland will not be adversely impacted.

The site will have an adverse impact on an area of rare Acid Grassland, known as The Roughetts. The retention, maintenance and restoration of this habitat is of great importance for the diversity of Kent's natural habitats.

The site falls within the Greensand Heaths and Commons Biodiversity Opportunity Area, which is of regional importance as a wildlife corridor.

RSPB - Share the views of Kent Wildlife Trust.

British Horse Society – Roughetts Road is used to access the limited rights of way network by many equestrians, the introduction of additional HGV's will increase the risk to riders using the road.

Request that diverted footpaths be upgraded to bridleways and an off-road bridleway to the west of Roughetts Road is provided to allow riders to keep off road as much as possible. Also request that the restoration makes use of the opportunity to provide new rights of way, road side margins and/or enhancement of the existing routes.

KCC Advisors

In undertaking this detailed assessment, advice has been sought from a range of technical specialists who advise the County Council on planning matters. This includes advice from on biodiversity, Public Rights of Way, noise, air quality, landscape, heritage, water resources, stability and highway and transportation interests. The views received have informed the assessment and the discussion section below. Several related standalone specialist reports have been prepared and have been published as background documents. The work has also been informed by the Project's Sustainability Appraisal work.

Views of Elected Representatives

KCC Member - Sarah Hohler

Ryarsh residents have been united in their opposition to the proposal to include this site in the Kent Waste and Minerals Local Plan and have been supported by neighbouring villages. The number of objections has been huge, as has attendance at local meetings.

As local member I have tried to make sure voices are heard, and listened to, and that information has been open and easy to access. I have not pre-judged the matter. The deeply heartfelt views of people are provided who are seriously concerned about the impact this site would have not only on their lives but on those of future generations. These views are backed up by careful and detailed research.

Tom Tugendhat, MP

The cumulative impact of the site together with previous and current mineral working would, in the view of residents, be severe.

As it is such a large site, the site would have a visual impact on the landscape and would affect views of local communities, including businesses and visitors. The site is within the setting of the Kent Downs AONB. The site is also located in the Green Belt and this should also be taken into account.

Vehicles should be prevented from travelling north from the site to roads in and around Ryarsh, Addington and Birling. In any event there is a risk that such routes could be used by accident including by speeding vehicles. There will be impacts on Roughetts Road due to an increasing number of vehicles. The impact on the A20 should also be considered in detail including the safety of the junction with Roughetts Road. Impacts on pedestrians should also be considered including the fact that well used PROW crosses the site.

Air quality will be impacted due to silica sand dust which is known to be severely harmful to health and this needs to be considered further. Other impacts on air quality arise due to excess Nitrogen Dioxide levels caused by HGVs. Effects on air quality due to silica dust will impact wildlife and ancient and BAP deciduous woodland and the views of Kent Wildlife Trust should be sought. Details should be sought concerning trees on the site and the existence of any Tree Preservation Orders. The site is within 1.8km of a SSSI and impacts on this should also be considered.

There are historic and listed buildings in the area, including the grade II listed Duke of Wellington pub, and impacts on these need to be considered.

If approved there should be stringent tests on restoration to ensure no impacts on, and enhancement of, biodiversity. The impact of loss of Grade 3 agricultural should also be considered.

The need for the mineral should be based on the latest guidelines. In accordance with government guidance areas with a smaller supply should meet their own needs and not rely on larger mineral planning authorities such as Kent to meet their needs.

Views of local residents

Many of the local residents objecting to the proposed site have been as part of the Ryarsh Protection Group, an action group working alongside Ryarsh Parish Council to object to the allocation of the site. In addition to individual letters, it submitted a report entitled Why Ryarsh is an Inappropriate Location for the Proposed M8 Quarry Development, November 2018. This set out 32 grounds to support its view. A copy is appended at appendix 3. The views are supported by the local MP Tom Tugendhat.

Concerns raised by local residents during the options consultation included:

- Adverse impact on the local amenity by way of noise, dust and vibrations
- Strain on the local highway network which are inadequate for HGV traffic
- Destruction of the landscape and adverse impact upon the AONB
- Adverse impact on local water resources
- Adverse impact on flora and fauna including impact upon ancient woodland
- Adverse impact on quality of life
- General blight and pollution to the local environment
- Adverse impact on PROWs
- Visual impact
- Health risks from slow moving vehicles and risk of silicosis and other pulmonary diseases from the quarrying of silica sand that will cause respiratory silica to be breathable in the locality
- Adverse impacts from cumulative quarrying activity and the M20 motorway
- Adverse impact on Ancient Saxon village and historically significant buildings
- The promoter's noise and ecological survey work was flawed
- Potential operational; breaches and changes to planning schemes once permitted
- No benefits to the community
- Whether the need for the site (in terms of mineral supply) is justified

2.0 Sustainability Appraisal

In accordance with statutory requirements a sustainability appraisal (SA) has been completed which considers how well the site performs against certain sustainability objectives. The detailed results of the SA are set out in a separate document.

3.0 Discussion

This section addresses matters raised above as well as those identified during the initial site assessment which are key to assessing the suitability of the site for allocation in the Kent Minerals Sites Plan.

Amenity

The promoted site has been assessed against policy DM11 of the KMWLP which requires that mineral development should not generate unacceptable impacts from noise, dust, vibration, odour, emissions, illumination, visual intrusion, traffic or exposure to health risks and associated damage to

the qualities of life and wellbeing to communities and the environment. Similar policy protection is provided within the NPPF.

Impact on amenity may arise as a result of dust, noise, illumination and vibrations resulting from operations at the site and from vehicle movements. The amenity impact could also have a visual dimension resulting from an activity which is industrial in nature being located within a semi-rural setting. Sensitive receptors include the communities (including visitors and businesses) proximate to the site itself and roads used to access the site may also be affected by impacts associated with the quarry traffic. There are a number of residential properties within 50m of the site.

With respect to air quality, the site is located between the M20, Roughetts Road and London Road which are the main sources of air pollution in the area. The Council's advisor on air quality, recognises that air quality is generally good, although notes that there is potential for health and amenity impacts at residential receptors in Roughetts Road to the east and London Road to the west. The golf course and the church (to the east and west, respectively) also represent sensitive receptors. It considers that appropriate mitigation of vehicle emissions is achievable, dependent on the nature of site activities.

Due to the presence of silica sand within the site, there is a risk that Respirable Crystalline Silica will arise from operations at the site. Advice from Public Health England (PHE) suggests that the risks associated with silica dust should be treated in the same way as the risks associated with any dust associated with quarrying or industrial activity and that this is primarily an occupational risk, as described in the Health and Safety Executive's "Control of exposure to silica dust: A guide for employees" advice note. The risk of non-occupational exposure to quartz (silica dust) arising from site operations is extremely low, and it is more likely to occur through the interaction with household items, such as paints and cosmetics.

The noise climate is likely to be influenced by road traffic noise from the M20 to the north and the A20 to the south. There are a number of individual dwellings within 50 metres of the site and mitigating the adverse impact for these dwellings is likely to require a combination of screening and an increased standoff. The residential development to the south and west of the site is in excess of 200m from the site and an acceptable level of noise environment is expected to be achievable.

At all quarries, steps are taken to minimise noise, for example by ensuring vehicles are fitted with silencers and acoustic barriers are constructed as required. Dust suppression measures are also employed to prevent dust dispersion. Due to the distance of the site from the village centre (including the school), noise and dust is not expected to have a noticeable impact on the village. Noise and dust issues would be considered in detail at the planning application stage, if detailed proposals were submitted.

The Council's assessment of the potential impacts on amenity concludes that whilst it may be challenging to mitigate all amenity impacts, particularly for those who live closest to the site, it would be unlikely that any amenity impact would be so severe that the site should not be developed. Mitigation of amenity impacts would be required, and this would likely include screening bunds and increased stand-off at some points, such as those closest to the properties along Roughetts Road. It is therefore considered that any amenity impacts associated with the operations of the site can be satisfactorily mitigated in a manner similar to other quarrying operations in the vicinity of residential development and it is concluded that potential amenity impacts are not sufficiently significant to

warrant non-allocation of the site.

Note that consideration of impacts on visual amenity are considered below.

Highways and Transportation

The proposed site has been assessed against policy DM13 of the KMWLP which requires that minerals development satisfy that the access arrangements are not detrimental to road safety, that the highway network is able to accommodate the traffic flows and will not give rise to unacceptable impact on the environment or local community and that emission control and reduction measures are proposed, particularly within an AQMA. Similar policy support is provided for within the NPPF.

The promotor submitted a highways and transport assessment which considered whether Roughetts Road would have sufficient capacity as a road link. It was suggested that the Road has capacity for 1,020 two-way vehicles per hour, and it is currently operating at well below this (210 vehicles). Furthermore, London Road (which will connect the site to the SRN) is also operating at well below its threshold. It was therefore concluded that both roads have sufficient capacity to accommodate the forecasted increase in vehicle movements. This methodology factored in the anticipated background growth rates to 2030.

The concern that the junction of Roughetts Road and the London Road does not have capacity to accommodate regular HGV movements is also addressed which concludes that the junction is currently operating below the recognised threshold at both AM and PM hours and so the junction could accommodate quarry traffic.

Whilst recognising that Roughetts Road has previously been used by HGVs to access the former Ryarsh Brickworks site (now a housing development), the Local Highway Authority has concerns that the highways and transport assessment is deficient in a number of minor aspects. Ultimately however, it considers that it is possible to operate the site in a manner that should not result in unacceptable impacts on the road network. This is subject to any application fully addressing the following matters:

- The need for any localised road widening on Roughetts Road to accommodate turning movements to and from the site access.
- The need for regular road condition surveys to be carried out during the operation period with maintenance provided where required.

If an acceptable proposal were to come forward for development in this location an appropriate condition(s) would be imposed relating to HGV or other vehicle routing and this would include a prohibition of HGVs (or other vehicles if deemed necessary) from turning left out of the site entrance (i.e. to the north) or right into the site entrance (from the north). In this way all HGVs (or other vehicles if deemed necessary) would be required to travel to and from the A20 via that section of Roughetts Road to the south of the proposed site entrance. If HGVs travel the wrong way and enter or leave the site from / to the north, the operator could be served with a breach of condition notice. Such a requirement would avoid vehicles using unsuitable country roads to access the site from the north.

Landscape and Visual Amenity

The proposed site has been assessed against policy DM2 of the KMWLP which aims to ensure that there are no unacceptable adverse impacts on important landscapes, including the Kent Downs AONB, and sets out the circumstances where impacts upon them would be acceptable. Policy DM2 notes that proposals outside, but within the setting of an AONB will be considered having regard to the effect on the purpose of conserving and enhancing the natural beauty of the AONB. This policy was prepared in line with the NPPF which sets out similar criteria. Impacts on visual amenity are assessed against policy DM11 that seeks to ensure that mineral development does not generate unacceptable adverse impacts from visual intrusion.

The site is directly to the south of the Kent Downs AONB, and although the M20 provides a barrier, it is within its setting. The proposed site is slightly elevated and located in open countryside.

Likely sources of landscape and visual effects associated with development include:

- Removal of vegetation cover, and soil stripping, as part of Site clearance activities;
- temporary diversion of footpaths that run through the Site;
- the presence of the Site compound, Site plant (including vehicles), and materials stockpiles;
- the presence of areas of excavation in the landscape;
- movement of HGVs accessing the Site; and
- the presence of infilling operations following the completion of excavation in each phase.

Three-metre-high screening bunds, together with tree planting, are proposed to mitigate the visual impact of the development for the lifetime of the activities.

A landscape assessment was submitted by the promotor, which concludes that the surrounding vegetation affords the site a fairly enclosed nature which limits views into the site. The assessment considers that the only noticeable visual impacts would occur in views from relatively close proximity to the site such as those from Roughetts Road, London Road, certain PROW and nearby residential properties and that mitigation in the form screening via bunding and planting would be inherent in the design. The nature of the development means it would progress gradually below ground level which would further reduce the visibility of extraction activities. The report concludes that the proposed development would have a highly localised impact on the landscape character, with the proposed mitigation considerably reducing any visual impact.

Kent Downs AONB Unit confirmed that it was broadly in agreement with the findings of the promoter's report that views of the proposed site from the AONB would be limited and concluded that, subject to a requirement for appropriate mitigation, it would not object.

A critique of the landscape assessment carried out on behalf of Kent County Council identified deficiencies in the promoter's assessment including:

- A lack of information provided about the phasing of extraction, restoration and mitigation measures.
- A lack of consideration of likely effects upon the Kent Downs AONB, on nearby properties and users of the public rights of way that run through the site.

Notwithstanding the above, the critique concluded that a number of measures could be employed to provide mitigation to reduce or eliminate adverse impacts. In particular screening should be provided

during the proposed extraction period particularly adjacent to the boundary viewed from Roughetts Road. Proposed restoration landscaping should, when available, take into account the loss of internal hedge material and enhance the existing woodland at the southern boundary to the site enhancing the identified ancient woodland and BAP deciduous woodland. It would also be preferable that planting and hedging is provided to compliment any proposed reinstated or public pathway realignment within the proposed development site.

The efficacy of such mitigation measures would need to be clearly demonstrated as part of any detailed planning submission.

Whilst it is anticipated that significant adverse visual effects could occur locally, in the wider context it is considered that effects would be limited by the level of enclosure provided by the pattern of vegetation cover.

Overall effects on the nearby Kent Downs AONB are also considered unlikely to materially affect the designation, but this needs to be confirmed by careful assessment.

In light of the above, the County Council considers that subject to certain matters being satisfactorily addressed at the planning application stage, the site is acceptable in principle on landscape grounds.

Biodiversity

The proposed site has been assessed against policy DM3 of the KMWLP which requires that proposals do not result in unacceptable adverse impacts on Kent's important biodiversity assets and SSSIs. This policy was prepared in line with the NPPF which sets out similar criteria.

Natural England advise that the site is within the Impact Risk Zone of the Trottiscliffe Meadows SSSI nearly 2 km away. It is considered that adequate mitigation could be put in place to ensure that development has no impact on the SSSI.

Disruption to the Ancient Woodland (directly or indirectly) to the south of the site should be avoided and an appropriate buffer zone between the Ancient Woodland and the workings would be required, the extent of which would be confirmed at the planning application stage.

Trees in the south western corner of the site are identified as part of a Group Tree Preservation Order (TPO – reference 05/00016/TPO). As above, disruption to the TPO should be avoided and an appropriate buffer zone would need to be provided between the protected trees and the excavation area. Impacts on affected trees would be considered in accordance with Policy DM2 of the KMWLP at any planning application stage.

Whilst Kent Wildlife Trust have concerns regarding an area of Acid Grassland on the site, surveying has revealed that this has not been managed and so is of poor quality and cannot be deemed Priority Habitat Quality. The proposal to manage an area of acid grassland would likely result in an improvement to the current situation such that the botanical interest of the grassland is enhanced.

There are number of protected species on site, however it is likely that appropriate mitigation can be implemented and the ecological interest of the site for these species can be maintained.

The Habitats Regulation Assessment does not conclude that mineral working in this location would have any impacts on designated European sites.

Considering the above information, the County Council considers that any impact on biodiversity could be addressed and satisfactorily mitigated at planning application stage.

Historic Environment

The proposed site has been assessed against policy DM5 of the KMWLP which requires that there should be no unacceptable adverse impact on Kent's historic environment taking account of mitigation and compensation and heritage assets be conserved in a manner appropriate to their significance. This policy was prepared in line with the NPPF which sets out similar criteria.

There are a number of listed buildings within 500m of the site, three of which are within 260m of the site. In addition, there are a number of Scheduled Monuments within 1km of the site (Addington Long Barrow, within 960m and the Chestnuts Long Barrow within 1km), and Conservation Areas within 1km (Addington within 600m, Ryarsh Village within 640m and Offham Church within 800m). The County Archaeologist advises that there is potential for Paleolithic remains within the site and that investigative works and possible mitigation would need to be included within any planning application. It is considered that mitigation is possible to ensure local heritage assets, particularly the listed buildings within close proximity to the site, are protected from unacceptable impacts.

Historic England has been consulted on the proposal to allocate this site for mineral working and it has not raised any specific concerns.

Need for the Mineral

The proposed site has been assessed against policy CSM2 that sets out the requirements for the supply of soft sand and silica sand. This policy was prepared in line with the NPPF.

Calculations regarding supply and demand based on 2017 data, taken together with an 18-year landbank, suggest the shortfall is now in the order of 2.5mt for soft sand³.

The site is part of the Folkestone Formation (part of the Lower Greensand Group) and the economically important aggregate yielding geological unit, a loosely consolidated to unconsolidated marine (ancient beech) sand that is a unique part of the geological succession in Kent and the wider South East. The material is generally free of contaminants (in its purest form it is referred to as 'silica sand') and is of a particle shape and size consistency that makes it suitable as a mortar sand and its flow characteristics are such that it is often referred to a 'soft sand', it is also used as a constituent in coated stone production, or asphalts.

An alternative to the land-won soft sands, that will provide a steady and adequate supply as required by the National Planning Policy Framework, is unavailable at this time.

Neighbouring authorities support the allocation of sites suitable for the development of soft sand on the basis that this would help address a wider issue that the vast majority of soft sand in the unconstrained south east is being progressively exhausted, and much of what remains is constrained by designations such as AONB's or National Parks (such as the South Downs).

At this time, however there is no evidenced need to demonstrate a case to make significant over provision in Kent to meet a regional need.

³ See Soft Sand Topic Paper 2018

Green Belt

The proposed site has been assessed against policy DM4 of the KMWLP which states that development within the Green Belt will be considered in light of its potential impacts and shall comply with national policy and the NPPF policy on Green Belt.

The site is within the Metropolitan Green Belt. Mineral extraction is not considered on its own to be inappropriate development, however structures such as bunds, plant and machinery which may impact of the openness of the Green Belt can be considered to be inappropriate development. Restoration of the site by backfilling within inert materials would comprise inappropriate development. In accordance with national and local policy an assessment of whether “very special circumstances” exist that would allow the development within the Green Belt is required. This assessment is set out in Appendix 2 and considers whether other considerations would outweigh the harm to the openness of the Green Belt or any other harm. This assessment concludes that while restoration of the mineral working by infilling to existing ground levels would constitute inappropriate development, it is considered that very special circumstances exist to override the presumption against this particular inappropriate development within the Green Belt. However, activities associated with the mineral extraction activity also constitute inappropriate development and, by virtue of the fact that the need for the development (supply of soft sand) could be met at an alternative suitable site outside of the Green Belt, it is considered that very special circumstances to override the presumption against inappropriate development in the Green Belt do not exist and allocation of this site in this location would therefore be inconsistent with local and national Green Belt policy.

Water Environment

The proposed site has been assessed against policy DM10 of the KMWLP which requires that development should result in no deterioration and improved ecological status of all waterbodies within the site and/or hydrologically connected to the site. This policy was prepared in line with the NPPF.

The site is entirely located within Flood Zone 1 (less than 0.1% annual probability of flooding) and the Environment Agency has not indicated any concerns. The County Council’s Flood Risk Assessment (FRA)⁴ recognises that there is an unnamed watercourse to the south of the site, however any potential flooding from this watercourse is likely to be directed to the lower-lying land to the south of the site. The FRA recommends that a 16-metre standoff be provided between any mineral working and this watercourse.

With regard to impacts on water quality, the Environment Agency considers that mitigation of potential impacts on groundwater and the Leybourne Stream caused by mineral working in this location is possible.

In light of the above it is concluded that the site’s impact on the water environment does not render it unsuitable for allocation.

Land Stability

The proposed site has been assessed against policy DM18 of the KMWLP which expects that planning permission for development will not be granted unless it is demonstrated that development will not result in land instability. This policy was prepared in line with the NPPF.

⁴ Site M8: West Malling Sandpit Flood Risk Assessment, Waterco, July 2018

The Council's land stability report⁵ includes consideration of the site's proximity to the M20, highlighted by Highways England, and concludes that there are no issues which cannot be mitigated by standard quarry design practices.

Soil Quality

The proposed site has been assessed against policy DM1 of the KMWLP which requires that proposals demonstrate that there is no unacceptable adverse impact on the use of other land for other purposes. This policy was prepared in line with the NPPF.

Natural England's Agricultural Land Classification Map states that the site contains Grade 3 (Good to Moderate) soil. It is considered that while mineral extraction would result in a loss of this soil such a loss would be temporary as the site would be restored to agricultural land.

PROW

The proposed site has been assessed against policy DM14 of the KMWLP which requires that where proposals impact a PROW, they will only be permitted if; satisfactory prior provisions for diversion of the PROW can be made which are convenient and safe for the PROWs users, an acceptable alternative route can be provided during operations and restoration, and opportunities to improve countryside access are taken wherever possible. This policy was prepared in line with the NPPF which sets out similar criteria.

It is considered that although PROWs (MR153 and MR152) cross the site, these would ultimately be reinstated following restoration and temporary impacts can be adequately mitigated by diversions that would allow continued connectivity between surrounding villages. The County Council's PROW Officer raises objection to the proposal subject to details of diversion being provided.

Cumulative Impact

The proposed site has been assessed against policy DM12 of the KMWLP which expects that mineral development should not result in an unacceptable adverse, cumulative impact on the environment or communities. This policy was prepared in line with the NPPF which sets out similar criteria.

It is recognised that mineral working has taken place in the surrounding area in the past. The KMWLP notes that cumulative impacts may occur where separate developments occur near to each other and there is a need for such impacts to be taken into account. The assessment of potential impacts which could arise from development in this location has not revealed that unacceptable cumulative impacts would arise, however cumulative impacts will require further consideration if a proposal were to come forward.

4.0 Conclusion - M8 West Malling Sandpit, Ryarsh

Whilst the site is generally considered acceptable in principle, there is strong policy opposition to any inappropriate development within the Green Belt, unless very special circumstances can be shown to exist. The County Council considers that, activities associated with the mineral extraction would not preserve the openness of the Green Belt and so the development is inappropriate, and at this time, very special circumstances do not exist, primarily as the quantity of soft sand needed over the Plan period can be met by another site that has been assessed as suitable for development which not

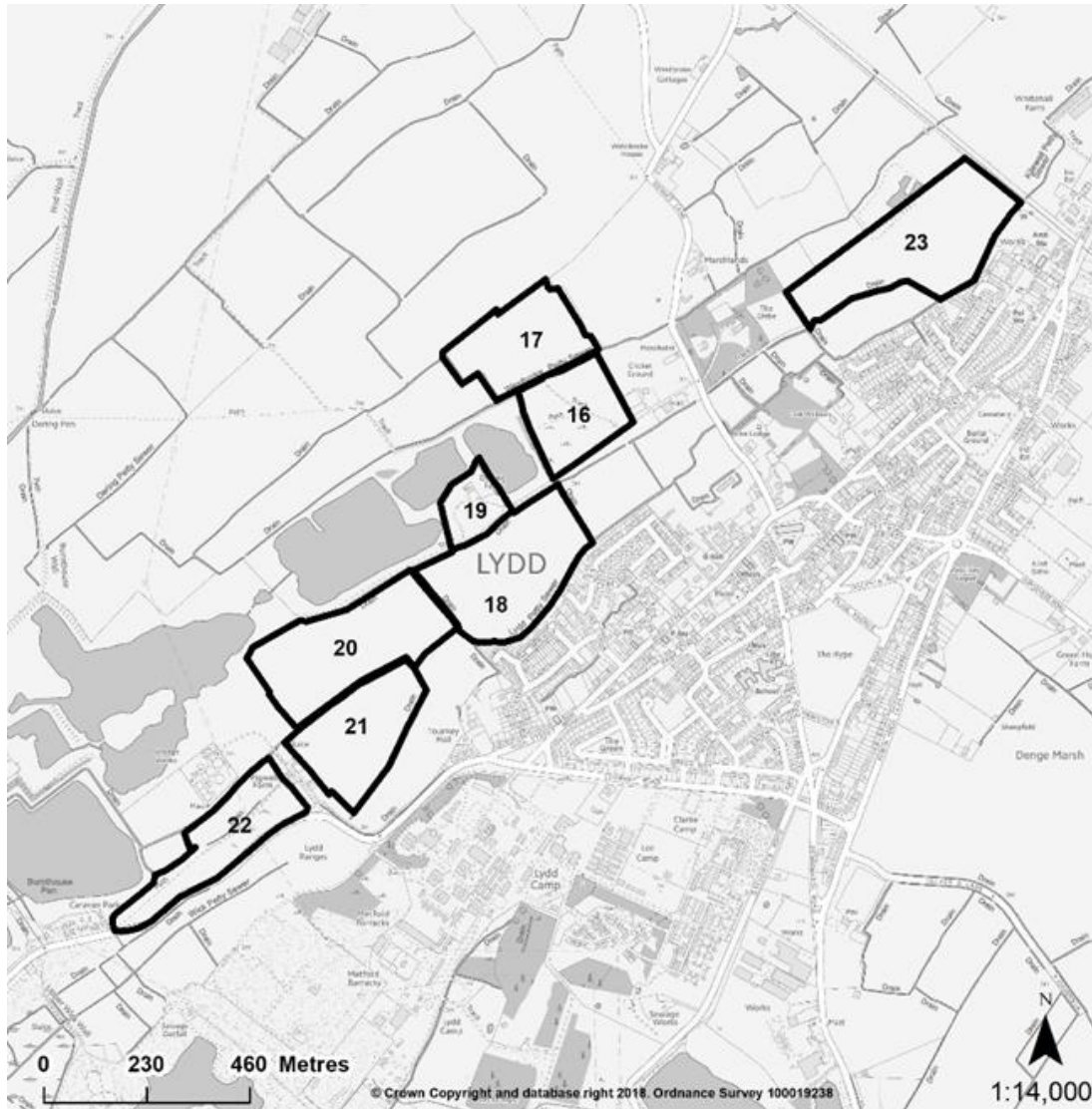
⁵ KCC (amey) Land Stability Assessment Technical Report August 2018

located with the Green Belt.

In light of this assessment it is concluded that the M8 West Malling, Ryarsh site should not be allocated. The site is not identified as a site in the Pre-Submission draft of the Mineral Sites Plan.

M2: Lydd Quarry/Allen's Bank Extension, Lydd - Sharp Sand and Gravel Sites

Site Location Plan



1.0 Matters addressed by Detailed Technical Assessment

Initial Assessment

As set out in section 3, of this report the initial assessment of the site⁶ identified a number of matters requiring further consideration, these were:

- Impact on landscape
- Impact on biodiversity
- Impact on the historic environment
- Impact on Public Rights of Way (PROW)
- Impact on the highway network
- Impact on services and utilities
- Impact on local amenity
- Cumulative impact with historic quarrying operations in the area
- Impact on an Airport Safeguarding Zone (Lydd Airport)

Matters Raised During the Options Consultation

Views of Key Organisations

Environment Agency (EA) – Object in the absence of information to demonstrate that the site will not have an adverse impact on water ecology.

Site is located within Flood Zone 3 which has the highest probability of flooding and the area currently benefits from flood defences. No objection provided there is no loss of floodplain capacity or alteration of potential flood-flows during or after the mineral extraction.

The area is known to have a high groundwater level; however it is considered that the extraction of the mineral, and the subsequent creation of several flooded pits, will have no substantial consequences for groundwater flooding and are unlikely to result in an enhanced risk of flooding.

Providing that the functionality of the ditches and sewers local to the promoted site are not compromised there is likely to be little deterioration from the current level of risk, with respect to susceptibility to both groundwater and fluvial flooding events.

Natural England – Appendix 4 sets out the advice received from Natural England in full but this is summarised as follows:

Extraction of minerals will result in the direct loss of the geomorphological interest from this area of the Dungeness, Romney Marsh and Rye Bay Site of Special Scientific Interest (SSSI). Ditch and other wetland habitats from within the SSSI, Special Protection Area (SPA) and Ramsar Site are also likely to be directly impacted as a result of this proposed minerals allocation.

In addition to these direct impacts, based upon the best currently available information, there are

⁶ See Mineral Site Selection – Initial Assessment - Stages 1 and 2 of the Site Identification and Selection Methodology, November 2017

potential indirect impacts to the wetland habitats surrounding the proposed allocation site from changes to the hydrology (including saline incursion), water quality and availability together with loss of supporting land for species associated with the SPA and Ramsar Site and the issue of disturbance are also likely to result from the proposal.

Full and independent consideration is required of whether there are alternative sites or sources of material which will avoid or result in lesser environmental effects.

The proposed allocation of Lydd Quarry would appear to be contrary to the National Planning Policy Framework (NPPF) since the Council's own documents confirm there are alternative sources to meet the demand. The allocation would also appear contrary to Policy CSM1 of the adopted Minerals and Waste Plan since Paragraph 177 of the NPPF confirms that 'the presumption in favour of sustainable development does not apply where development requiring appropriate assessment because of its potential impact on a habitats site is being planned or determined.' Policy CSM2 of the adopted plan also confirms that alternative sources will be able to meet the demand by stating that if additional sites are not brought forward 'Demand will instead be met from other sources, principally a combination of recycled and secondary aggregates, landings of Marine Dredged Aggregate (MDA), blended materials and imports of crushed rock through wharves and railheads. The actual proportions will be decided by the market'.

Southern Water – Notes the following about the site:

- Sewerage infrastructure crosses several of the proposed sites.
- Lydd wastewater treatment works (WWTW) is adjacent to site 22.
- The access road for the WWTW runs between sites 21 and 22.

Does not consider any of the above to be a fundamental constraint, provided that appropriate provisions are made in the wording of any policy allocating these sites for minerals development.

The sewerage infrastructure connects the Lydd catchment to the WWTW and requires protection. Diversion may be possible at the operator's expense, provided a feasible route is available. Further engagement should be sought with Southern Water as the development proposal progresses.

Operational equipment at Lydd WWTW is in continual active use, therefore it is essential to maintain unhindered access to the WWTW via its access road at all times.

Folkestone and Hythe District Council - Object for a number of reasons:

- Several of the areas border housing in Lydd, the boundary follows residential back gardens, there may be an impact on public health and amenity.
- It is unclear how the Allens Bank parcel will be linked to the rest of the site. The railway should be utilised to prevent more HGV movements in the town of Lydd.
- Close proximity to the Dungeness Ramsar site, SPA and Special Area of Conservation (SAC), the proposed extension areas will require a Habitats Regulation Assessment. The site is within an SSSI.
- the site is within an area of archaeological potential and the Historic Environment Record show that there are a number of historic features within the site and a number of listed buildings within 250m.
- Potential for increased risk of bird strike due to open water bodies, could have impacts for the airport.

Lydd Town Council – Object for a number of reasons:

- Adverse impact (noise, dust and vibration effects) on quality of life and wellbeing to the residents of Lydd.
- Creation of further open water bodies and de-watering of aggregate extraction cells will exacerbate saline incursion to groundwaters due to increased evaporative losses and a hydraulic gradient being established with the nearby coastal waters.
- Impact on highways is unacceptable given that the local road network was not designed for the intensity of HGV use that is being proposed, the road infrastructure is being adversely affected at this time.
- No direct link between the economy of Lydd and the extraction of aggregates, no evidence of enhanced economic or employment benefit to Lydd.
- Alternatives to land-won materials around Lydd should be sourced.

East Sussex County Council- Sharp sand and gravel – The Council states that reserves for sharp sand and gravel are depleting at Lydd Quarry, this being one of the topics the Council are considering in the Review of the East Sussex Waste and Minerals Local Plan (WMLP). The Council point out that the operator of Lydd Quarry submitted a proposed extension to the quarry on the East Sussex side during the Call for Sites and Evidence consultation in 2017. The Council is currently considering this site and will determine whether it should be included in our Draft Revised Policies consultation later in 2018.

With regard to the Kent area Option site (Lydd Quarry and Allens Bank) the Council support the extra provision put forward in the Kent sites to serve the East Sussex market, subject to the following clarifications:

- prior to any decision being taken to allocate the proposed site, the Council would wish to understand whether overall production would exceed current levels. Were this to be the case and given that 50% of the quarry output currently serves the East Sussex market, consideration will need to be given to the impact of an increase in HGV movements, as well as any necessary and appropriate mitigation measures.
- The direction of working and phasing of the quarry extraction would need to be clarified. In the event that the quarry was to be extended both in Kent and East Sussex, would both sides of the quarry be worked at the same time? Or would production at the quarry concentrate in either Kent or East Sussex?
- If further reserves of this valuable material were to be allocated, its use should be limited to a constructional aggregate, and not for lower specification use such as beach replenishment.

Romney Marsh Internal Drainage Board (IDB) - The site is promoted as having a ‘dry cell’ extraction system in that water is pumped from an active pit, this presents two potential issues;

- a net loss of water for at least half of the year, and;
- salinity issues.

Currently water of varying salinity is discharged from the site into the Jurys Gut Sewer (Main River) from where it flows to the sea. Disposal of potentially saline water from the M2 sites as discharge into the nearest watercourse is not good practice.

Any loss of access to IDB interests and loss of habitat through development / erosion etc can be addressed and mitigation considered during the Board's Consenting procedure and is not a plan allocation matter. IDB Consent will be required for some aspects of the promoted work. Infilling and diversion of watercourses, whilst not an activity encouraged, is not insurmountable.

Offsetting the evaporation losses from the resultant lakes is a matter the EA should address once the losses have been quantified. The EA are the only organisation that could theoretically replenish losses from the District using the marsh feed.

British Horse Society – The area has a large equestrian population and increased heavy goods traffic and large plant working will cause an additional hazard for equestrians.

For this reason, we would ask that horse margins at the side of the roads be provided and/or the paths currently provided for walkers and cyclists be upgraded to also allow equestrians to use them. Connections to all PROWs must be maintained.

CPRE – Object to the allocation of this site for several reasons:

- The sites are designated as SSSI and as Areas of Archaeological Potential. They are adjacent to the Dungeness, Romney Marsh and Rye Bay Ramsar and are near to a Special Areas Conservation.
- Extraction from land east of PROW HL26 would adversely affect the setting of Listed Building Tournay Hall, as well as Lydd and All Saint's Church, Lydd and views of them from the PROW.
- It is also understood that the existing lakes and pools resulting from previous mineral extraction operations are becoming saline. This could have an adverse effect on nature conservation.
- Traffic impact on residential roads by HGVs coupled with HGV traffic moving shingle across the point. In accordance with previous practice it would be appropriate to compensate the local community for the inconvenience and disturbance.

Consideration should be given to dredging from Dungeness Point to provide material of the same quality before allocating the sites.

East Kent Badger Group – There are active badger setts on this land.

Kent Wildlife Trust - Object until it can be shown that there will be no negative impact upon Local Wildlife Site SH35 "Lydd Common and Pastures" with which the site overlaps. This is a designated site of County importance for nature conservation and therefore this needs to be taken into account.

In addition, there needs to be given consideration of the possible impact upon the National designation of Dungeness, Romney Marsh and Rye Bay SSSI; and European designated sites (Dungeness to Pett Level SPA, Dungeness SAC) in this area and the HRA process.

RSPB - Site would result in direct loss of local wildlife sites and therefore object to the proposal.

National Air Traffic Service (NATS) – No objection to the proposal

KCC Advisors

In undertaking this detailed assessment, advice has been sought from a range of technical specialists who advise the County Council on planning matters. This includes advice on biodiversity, Public Rights of Way, noise, air quality, landscape, heritage, water resources and drainage (flood risk), stability and highway and transportation interests. The views received has informed the assessment and the discussion section below. Several related standalone specialist reports have been prepared and have been published as background documents. The work has also been informed by the Project's Sustainability Appraisal work.

Views of Elected Representatives

Damian Collins MP (comments summarised)-The extraction of 3.1 million tonnes of sand and gravel at Option site M2 Lydd Quarry and Allens Bank extensions as being considered by Kent County Council would result in 12.4 years of operations with restoration to open water bodies would have boundaries that are very close to homes.

The residents of and around Lydd have experienced mineral extraction operations for many years and have become a fact of life locally. The process creates jobs and provides materials for flood defence along the Romney Marsh coastline and is vital in supporting the building of new homes. However, gravel extraction creates problems for the community, particularly from the noise of the quarrying and the transportation of the aggregate materials on local roads that are not suitably designed for that use. There is great disturbance for residents who live close to the sites. Therefore, the sensitive selection of the sites for large scale extraction is so important.

Alternative supply should be sought, particularly where coastal defence works are concerned. Thousands of tonnes of shingle are placed along the coast from Rye to Dungeness every year as part of sea defence works and much is washed out into the Channel. Also, much of this shingle gathers on the eastern side of Dungeness. There is no reason why this resource cannot be recycled using dredging vessel based at the port of Rye to recover this material. This would be a far preferable process, without incurring the same disturbance that would be caused by open quarrying sites close to Lydd. It would also be a sustainable way of mineral aggregate supply compared to land-won quarrying.

Tony Hills (KCC Member) – Whilst recognising the pressure that the County is under to supply aggregates for housing building, land won minerals are a finite resource and alternative sources should be considered such as marine dredging. This includes the working of shingle below the high tide mark from where substantial amounts of material can be obtained. Using dredgers is a far faster method of acquiring shingle, causes less costly damage to our highways infrastructure, protecting our communities from untold blight.

Views of Local Residents

Many of the local residents who objected to the proposal did so as part of the Lydd Resident Group; a local action group working alongside Lydd Town Council. In addition to the individual letters received from residents, the Group coordinated a petition objecting to the site on grounds of flood risk, contamination of water sources, increase in traffic and devaluing of local properties. This petition attracted 747 written signatories and 229 e-petition signatories.

Outside of the petition, concerns raised by local residents during the options consultation included:

Concerns raised by local residents during the options consultation included:

- Adverse impact on the local amenity by way of noise, dust and vibrations
- Increased probability of harm through drowning events in created open water bodies
- Adverse impact on property values
- Adverse effect on ability to insure properties appropriately
- Strain on the local highway network that is in poor condition due to current operations using roads not designed for that intensity of HGV use
- Adverse impact on highway safety
- Disruption of the landscape with increased artificial water bodies
- Adverse impact on local water resources
- Adverse impact on flood risk to the area, removal of minerals will reduce groundwater retention and exacerbate flood events
- Increased open water bodies would lead to increased evaporative losses and thus increased saline incursion to groundwater resources
- Alternatives to land-won aggregates exist in the marine area, in particular the accreted materials on the east side of Dungeness, further land-won quarrying that is used for beach replenishment should cease and recycling of this material should be employed
- Climate change effects causing sea level rise could lead to inundation of the quarried areas and causing Lydd town to be surrounded with standing water
- Adverse impact on flora and fauna
- Adverse impact on quality of life and general environmental blight

2.0 Sustainability Appraisal

In accordance with statutory requirements a sustainability appraisal (SA) has been completed which considers how well the site performs against certain sustainability objectives. The detailed results of the SA are set out in a separate document. The site has also been considered against the requirements of the Conservation of Habitats and Species Regulations 2017 (the Habitat Regulations).

3.0 Discussion

This section addresses matters raised above as well as those identified during the initial site assessment which are key to assessing the suitability of the site for allocation in the Kent Minerals Sites Plan.

Amenity

The promoted site has been assessed against policy DM11 of the KMWLP which requires that mineral development should not generate unacceptable impacts from noise, dust, vibration, odour, emissions, illumination, visual intrusion, traffic or exposure to health risks and associated damage to the qualities of life and wellbeing to communities and the environment. Similar policy protection is provided within the NPPF.

There are a number of parcels or cells that form the site where mineral extraction would take place. Some are a considerable distance away from the area of Lydd Town, others are closer, with particular emphasis in this regard is parcel 18 that is very proximate to a residential quarter of Lydd. Given the low ambient noise levels in this open rural landscape there may be impacts on these

properties that would require noise mitigation. The precise form of this is not determined, though the lack of substantive top and sub-soils would preclude extensive sound barrier bunding. Increased stand-offs to reduce noise impacts to the affected residential areas of Lydd would probably be the more effective available mitigation for noise impacts.

It is considered that mitigation would be required, as outlined above, to reduce noise impacts on the residential areas of Lydd that be adversely affected.

With regard to concerns for dust impacts these relate to those that could arise from the quarrying operations and the processing and dispatch of the product. The area is extensive and significant distances would exist for most of the promoted extraction areas, the extraction method proposed is to reduce the water table in the extraction parcel and 'dry cell' with active pumping. As opposed to 'wet extraction' in an open water body. Though 'dry cell' extraction is proposed the material will be semi-wet and thus still in a cohesive state where fines within the sand and gravel would be held together by the moisture and give rise to limited airborne dust impacts. Though, water table fluctuations could change this relationship the low-lying nature of the area would not give rise to very wide fluctuations. It is considered that if not adequately mitigated by quarry maintenance, dust impacts could occur due to dust being 'tracked out' by HGV movements.

Highways and Transportation

The proposed site has been assessed against policy DM13 of the KMWLP which requires that minerals development satisfy that the access arrangements are not detrimental to road safety, that the highway network is able to accommodate the traffic flows and will not give rise to unacceptable impact on the environment or local community and that emission control and reduction measures are proposed, particularly within an AQMA. Similar policy support is provided for within the NPPF.

The current planning permission for the existing Lydd works states that there should be no more than 250 HGV movements a day. The County Council as Local Highway Authority are of the view that continuation of this level of intensity over the period of the additional mineral extraction would not warrant an objection to the promoted site, given that it will generate no extra vehicle movements than the permitted quarry development.

This position is caveated by the County Highways Authority being satisfied that the existing minerals working (related to the 2007 planning application) would be fully extracted first and the two implemented planning permissions would not operate at the same time. Moreover, any new planning permission for the proposed extension areas would require a condition to limit the site to 250 HGV movements a day (125 in / 125 out) in order to maintain the same level of intensity. Road maintenance is a matter that the County Council has to respond to in its role as the County Highways Authority when it is determined that road surfaces and or design requires maintenance or change.

PROW

The proposed site has been assessed against policy DM14 of the KMWLP which requires that where proposals impact a PROW, they will only be permitted if; satisfactory prior provisions for diversion of the PROW can be made which are convenient and safe for the PROWs users, an acceptable alternative route can be provided during operations and restoration, and opportunities to improve countryside access are taken wherever possible. This policy was prepared in line with the NPPF which sets out similar criteria.

The promoted site would have a limited impact on the PROW network of the area. Also it is considered that any management requirements to maintain public accessibility and safety can be reasonably addressed at the planning application stage. There are no grounds not to allocate the site on the basis of likely unacceptable adverse impacts occurring on any defined PROW.

Landscape, Visual Amenity and Green Infrastructure

The proposed site has been assessed against policy DM11 of the KMWLP which requires that proposals for minerals development do not cause unacceptable adverse impact in terms of visual intrusion. This policy was prepared in line with the NPPF which sets out similar criteria.

Policy CSD4 of the Folkestone and Hythe core strategy 2013 designates the town of Lydd as Green Infrastructure (GI), the purpose of which is to promote opportunities for net gains in biodiversity, and positive management of areas of high landscape quality or high coastal/recreational potential. The proposal has therefore also been assessed in terms of its potential conflict with this policy.

The existing landscape is characterised as flat in nature with extensive open views without significant disruption, though there are man-made structures such as pylons and existing or previous mineral extraction sites. The proposed extension areas are within the existing SSSI with a number of other designated landscapes and habitats in close proximity. The extension sites would be located in closer proximity to the town of Lydd. There are no detailed restoration proposals but the promoter has indicated that following their extraction, the areas would form open water bodies.

Landscape assessment indicates the need for significant screen planting and bunding along boundaries close to residential properties. With variation of the width of screen planting and its location within the boundary area to preventing large linear lengths of planting. Also, a reflection of the 'pocket' woodlands evident locally could be replicated, where possible, and therefore screening should not be uniform in nature and careful consideration should be given to canopy and understory planting mixes that are native to the local area.

However, limited top soil and overburden over much of the site may militate against any extensive screen bunding opportunities. Screen planting may be possible, though variations of salinity of the water table may reduce the opportunity for substantive tree growth in many parts of the shingle ridge and surrounding area. Stand-offs and some planting where possible appear to be the only suitable 'screening' options available. Provided the stand-offs are of a sufficient distance then the operations may be reduced in the expansive landscape such that the impact on the residential receptors could be minimised to an acceptable degree overall.

This is more a matter for detailed consideration for a planning application, though wet land and marginal habitats restoration with native local species, marginal and aquatic vegetation, wetland scrub characteristic of the local area and associated grass and wildflower mixes would enhance biodiversity and could also have an ameliorating effect of integrating the lake margins (that are by their nature artificial) into the landscape.

Historic Environment

The proposed site has been assessed against policy DM5 of the KMWLP which requires that there should be no unacceptable adverse impact on Kent's historic environment taking account of mitigation and compensation and heritage assets be conserved in a manner appropriate to their significance. This policy was prepared in line with the NPPF which sets out similar criteria.

The available geophysical evidence suggests that Romano activity has occurred on the part of the site that includes parcel 23 (Allens Bank) and the possibility of important archaeology of this period is high. Due to the archaeological interest the area was removed from a planning application for mineral development in 1999 and also withdrawn from consideration during earlier work on the Mineral Sites Plan (the site was not included as part of the Preferred Options Regulation 18 Consultation in May 2012). Submitted information does not address the need for a full archaeological evaluation of this sensitive location and due to the likelihood of unacceptable impacts on the historic environment it is therefore not appropriate to allocate this site for mineral working as its deliverability is highly uncertain.

The archaeological potential of parcels 16,17,18, 19, 29, 21 and 22 of the promoted site is less pronounced. Archaeological evaluation can occur at the planning application stage and there are no overriding issues to not allocate these parcels on archaeological grounds.

The County Conservation Officer has raised concerns for impact on the character of the locality and how this would impinge on the Lydd Town Conservation Area. The creation of further open water bodies, an artificial feature, closer to the historic town Lydd Town will need to be screened, if possible, to ameliorate this impact satisfactorily.

Biodiversity

The proposed site has been assessed against policy DM3 of the KMWLP which requires that proposals do not result in unacceptable adverse impacts on Kent's important biodiversity assets and SSSIs. This policy was prepared in line with the NPPF which sets out similar criteria.

The promoted site is not within the adjacent Dungeness, Romney Marsh and Rye Bay SPA (save for parcel 19 that is coincident with the SPA/Ramsar area). Though is in close proximity and may have indirect impacts arising from any mineral extraction operations. Furthermore, many of the proposed allocations will affect a number of areas of Priority Habitat in the locality. The relevant Conservation of Habitats and Species Regulations 2017 (the Habitat Regulations) make it clear that if a plan or project has the probability of a direct or indirect significant effect on the internationally important interest features of the site, alone or in combination with other plans or projects, then the competent authority must make an Appropriate Assessment (AA) of its implications for the site which takes account of the site's conservation objectives.

Discussions with Natural England have revealed that information provided by the promoter to support the AA process was not sufficient to enable KCC to undertake the AA, in line with an agreed scope and in accordance with the Habitats Regulations. There is particular concern regarding the potential impacts on the designated sites which could result from the proposed de-watering production processes. Such impacts include changes to local ground water conditions (quality and availability) that are still largely unknown, and for which further study is required before it can be concluded that there are no such probability of adverse impact(s). It is considered that the increase in water bodies (formed by the extraction) and the decline in arable fields and vegetated shingle could also have a detrimental impact on the ability of the European sites to provide habitat capable of achieving the purpose (sustaining certain species) for which they were designated.

Much more detailed information would therefore need to be provided before the site could be allocated⁷. Furthermore, in accordance with 'avoid, mitigate, compensate' requirement of the

⁷ See Kent Mineral Sites Plan Appropriate Assessment, Ecus Ltd., November 2018

National Planning Policy Framework and requirements of the Habitats Regulations, alongside consideration of impacts, there would be a need to consider if there are alternatives to the aggregate resource being promoted. An assessment of information regarding alternatives submitted by the promoter has been completed and the findings are set out in Appendix 5. This assessment concludes that it would not be unreasonable for the sharp sand and gravel to be supplied from this location to be obtained from other sources, in particular marine. This conclusion is consistent with policy CSM2 of the KMWLP that recognises the state of resource depletion in Kent and notes that a 7 year sharp sand and gravel landbank can only be maintained for as long as resources allow (see below for further consideration of this matter).

Furthermore, consideration of a mitigation strategy is required that will address such matters of the ecological impacts on the actual areas of proposed extraction. This includes the promoted site's existing ecology (that contains Priority Habitat areas). This being a necessary consideration in addition to the SPA concerns under the Habitat Regulations.

Need for the aggregate mineral

The proposed site has been assessed against policy CSM2 that sets out the requirements for the supply of sharp sand and gravel. This policy was prepared in line with NPPF.

Calculations regarding supply and demand based on 2017 data, taken together with an 18-year landbank, suggest the shortfall is now in the order of 5.75mt for sharp sand and gravel⁸. The promoter of the site states that 3.1mt is available for allocation, although this would significantly reduce if Allen's Bank is withdrawn, given the estimated total reserves here being potentially up to 2.75mt. Clearly, there is a need to allocate the site on national mineral planning policy grounds. The adopted KMWLP, however makes it clear that whatever the requirement is [as updated by new Local Aggregate Assessment data] this will be planned for "...while resources allow" see Policy CSM 2 Supply of Land-won Minerals in Kent. Therefore, if the site cannot be allocated, the policy recognises that demand will instead have to be met from other sources, "*principally a combination of recycled and secondary aggregates, landings of MDA [marine dredged aggregate] , blended materials and imports of crushed rock through wharves and railheads. The actual proportions will be decided by the market*"

Water Environment

The proposed site has been assessed against policy DM10 of the KMWLP which requires that development should result in no deterioration and improved ecological status of all waterbodies within the site and/or hydrologically connected to the site. This policy was prepared in line with the NPPF.

The area is a low-lying area that has historically been defended against the incursion of the sea, then drained to form arable land behind the cusped foreland (of Dungeness). Therefore, the land has an inherent potential for flooding that led to the town of Lydd being historically built on the most elevated shingle ridge.

The extraction of aggregate from the land then become standing water bodies (artificial lakes), increases the flood water storage potential of the land. Though this effect is a marginal one given the limited amount of material removed from the land when compared to the scale of the remaining land volume. However, it can be said that in terms of the probability of flood risk, removal of the aggregates has a neutral impact, and does not increase in flood risk overall.

⁸ See Sharp Sand and Gravels Topic Paper 2018

The Environment Agency has reviewed the promotor's consultant report on flood risk (ref. Assessment of Flood Risk Prepared for; Brett Aggregates Limited, SLR March 2018) and has stated:

"The detailed Flood Risk Assessment (FRA) submitted by the promoter demonstrates that the sites lie within an area of Flood Zone 3 (high risk) that presently benefit from the presence of formal flood defences. In light of this residual risk of flooding, the FRA recommends that there should be no stock-piling of material within the floodplain, and that the site is restored to its existing topographical condition once the works are complete. Provided there is no loss of floodplain capacity or alteration of potential flood-flows during or after the mineral extraction, the agency would be unlikely to raise any concerns from a tidal flood risk management perspective. The agency confirm that the area is known to have a high groundwater level, the danger of groundwater flooding in and around the proposed sites has been considered. It is the agency's conclusion that the extraction of the mineral, and the subsequent creation of several flooded pits, will have no substantial consequences and are unlikely to result in an enhanced risk of flooding."

Potential groundwater impacts of concern are: aridification due to 'evaporative losses' and ground water 'draw down' effect from 'dry cell' extraction of the aggregate using active pumping out of the ground water; and a potential adverse impact on groundwater quality due to increased salinity. The impact of this could potentially be to adversely affect water supply and the ecological balance and characteristics of the wider SPA and SSSI areas.

The Environment Agency confirm that the Lydd Storm Beach deposits are a secondary aquifer. They go on to conclude that the aquifer "...is increasingly becoming fragmented and the promoted proposals to extract additional gravel would compound the impact that the previous workings have had on the aquifer in this locality". Therefore, it can be concluded that there has been some impact on this aquifer that would continue with additional workings coming forward.

Brett Aggregate Limited, the promoter commissioned a report by SLR consultants (ref. Preliminary Assessment of Potential Hydrogeological and Hydrological Impacts) to investigate this impact in relation to the promoted method of working the individual parcels of land. With regard to saline intrusion, the report concluded that due to the elevation of the area (low) and the proximity of the coast there is the potential for saline intrusion, subject to the permeability of the strata or geology.

Data collected from the area demonstrates that the Storm Beach deposits are fresh water while the lower permeable Tidal Flat Sand deposits in the area contain saline water from the event of their formation. Data also showed that closer to the coast (in East Sussex) coastal processes have given rise to saline incursion.

The report concludes that saline incursion into the Kent Romney Marsh Groundwater Body is predominantly due to coastal process and the differing permeability characteristics of the deposits. More localised saline impacts may occur if a saline Tidal Flat deposit is in close proximity to a de-watered Storm Beach sand and gravel extraction cell, though the overall low permeability of the Tidal Flat deposits means this would have a more local to extraction impact rather than a general one.

With regard to increased aridification due to draw down effects from de-watering of the extraction areas, the report makes clear that there will be an effect in the Kent area of the extraction sites. The magnitude of impact is still unclear. It recommends a 5-6-year baseline monitoring period is required to be established in the Kent area to understand what impact this would have on groundwater levels.

This lack of available data means that potential groundwater change as a result of the promoted site is not understood at this time.

The Romney Marsh Internal Drainage Board has raised concerns with regard to the potential for evaporative losses to impact the ground water levels and thus increase the aridification effect on the area. The Environment Agency has stated [verbally at meetings] that any enhanced evaporative losses, due to increased lake surface area, would be balanced by direct input by precipitation onto the lakes that is not being intercepted by the land. Thus, a direct and immediate input to ground waters; the overall effect of increased lake area is considered neutral in this regard.

Geomorphology

The proposed site has been assessed against policy DM2 of the KMWLP which requires that development likely to have any unacceptable adverse impact on a Site of Special Scientific Interest, will not be permitted unless the benefits of the development outweigh the impacts. This policy was prepared in line with the NPPF.

The promoted site will directly affect the Dungeness, Romney Marsh and Rye Bay (SSSI) in terms of the geological feature that makes this area important. The shingle ridge is a component part of the evolution of the Dungeness cusped foreland and may have been part of the barrier beach phase that accreted before the 13th Century. The promoted site would effectively destroy the shingle ridge. Consideration has been given as to whether it might be possible to adequately study the features of the SSSI prior to its removal by the development. This involved consultation with the University of Liverpool which had been instrumental in the designation of the SSSI. It was concluded that refinement of the promoter's proposed methodology for recording the scientific value of the feature appropriately was required. In any event such an impact on a SSSI can only be allowed if the benefits of the extraction outweigh the impact. Consideration of this matter is set out in Appendix 5 and it is concluded that the benefits do not outweigh the impacts and so, on this basis, the site cannot be allocated.

4.0 Conclusion - M2: Lydd Quarry/Allen's Bank Extension, Lydd

The main issues that the promoted site has identified during the detailed assessment process that give rise to concern for the appropriateness of the site for allocation in the Mineral Sites Plan are:

- Impact on the setting and character of the historic town of Lydd
- Severity of impact on the Dungeness, Romney Marsh and Rye Bay Special Protection Area (SPA) and Ramsar Site as a result of this proposed minerals allocation. and the requirements of the Habitat Regulations for consideration of alternatives
- Severity of loss of Dungeness, Romney Marsh and Rye Bay Site of Special Scientific Interest (SSSI)
- Importance of and potential loss of the archaeological interests of parcel 23 Allens Bank

Conclusions on these matters are set out below:

The character and overall setting of the historic town of Lydd and its environs would be altered by the progression of aggregate workings progressively working through parcels 16 to 23 with replacement of extant arable land with increasing artificial open water bodies. Screening of the working and mitigation of the change to landscape may not be possible, given the limited available overburden to form effective screening bunds and fact that substantive native tree planting may not be achievable (background groundwater salinity may preclude successful tree growth). However, closer to the

centre of the Lydd area, where there is evidence of more substantive existing tree growth, there may be more potential for planting with native species. It would appear that in order to significantly ameliorate the change to the landscape either reduction of the number of extraction parcels and/or increase stand-offs to the built-up area of Lydd will be needed.

This in turn could have a significant impact on the mineral yield of the promoted Option site and would erode justification for incurring some degree of unavoidable impact on general amenity of the area in order to release aggregate required to support the economy as expected by the NPPF. Overall it is considered that allocation of other sites and the availability of marine won aggregate means there is no overriding requirement to allocate the site and incur the largely unavoidable impact on the character and setting of the historic town of Lydd which be inconsistent with Policy DM 5 Heritage Assets of the KMWLP.

The impact on the SPA is considered to be one of largely an undefined indirect nature and hydrologically based. Adverse impacts on the SPA due to increased aridity and salinity are considered possible. Applying the precautionary principle inherent in the Habitat Regulations requires alternatives to be considered through the AA process. However, the potential hydrological impacts of concern require consideration to ensure that they have been objectively assessed as either giving rise for concern, or that the impacts are minor or absent. The Habitats Regulations require the County Council (as the recognised competent body in this instance) to assess if alternatives to the plan are available – such consideration is set out in Appendix 2 which concludes that alternative sources of supply are available.

With regard for the direct loss of the SSSI feature, it can be concluded that there remains uncertainty as to whether the methodology put forward by the promotor's consultants would be sufficient to address the concerns raised by Natural England and the cautious comments made from the University of Liverpool. Therefore, unless there is an overriding need in the public interest to effectively destroy the SSSI by suppling aggregate materials and thus incur the loss the scientific resource, which is an integral part of the geomorphological evolution of the Dungeness cusplate foreland (and has been designated a SSSI on this basis), then it should not occur. The fact that alternative supply exists(as set out in Appendix 2) demonstrates there is no such overriding need in the public interest at this time.

The local socioeconomic effect of Lydd Quarry ceasing operation within two further years will no doubt have an effect, though arguably less than that of the promotor's estimates. Also, of the direct and indirect 54 FTE posts that exist, 31 are HGV related and could continue to operate transporting aggregates to the market from other sources (wharves). Others, including plant operatives, may be re-deployed, particularly at the new aggregate facility at Newhaven when it comes onstream. The effect on the economy of Folkestone and Hythe overall, if the site were to cease operation, appears to relatively marginal. Though the very local impact on Lydd in employment terms is unknown.

The Option M2 Lydd and Allens Bank site is not considered suitable for allocation in the Mineral Sites Plan in that the impacts on the historic town of Lydd, the potential impact on the SPA/Ramsar and SAC that can be negated with alternative aggregate supply that the adopted KMWLP has identified in Policy CSM 2 and loss of the SSSI and the archaeological potential of Allens Bank are not sufficiently justified at this time.

- Impact on landscape
- Impact on biodiversity
- Impact on historic environment
- Impact on water environment
- Impact on air quality
- Loss of grade 2 and 3 quality soil
- Impact on local amenity
- Impact on Public Rights of Way (PROWs)
- Impact on utilities/services
- Impact on Air Quality Management Areas (AQMAs)
- Access – impact on highway network
- Cumulative impact with other developments taking place in the area

Matters Raised During the Options Consultation

Views of key organisations

A summary of the responses from key organisations, including statutory consultees, is set out below which sets out the nature and extent of the concerns of such consultees especially with regard to the matters listed above.

Environment Agency – Object to the site in the absence of information to demonstrate that the ecology of the area will not be adversely impacted. The site is designated as a Local Wildlife Site (LWS), and no information is provided to address this.

This site overlies the chalk aquifer and is in SPZ2 for a public water abstraction borehole. Relevant constraints would be imposed on a specific application for shallow sand and gravel deposits and restrictions on depth of excavations, pollution control methods and ways of working to safeguard against aquifer disturbance, or impacts on water quality, would need to be conditioned in any permission.

Flood defences exist adjacent to the site. Detailed information would be required about the distance of extraction from the flood defences and how any extraction may impact the integrity of the flood defence.

Natural England – the allocation is likely to:

- result in a partial loss of Coastal and Floodplain Grazing Marsh priority habitat.
- have indirect impacts to the adjacent Coastal Saltmarsh priority habitat.
- Result in indirect impacts to the adjacent to Deciduous Woodland priority habitat.

Natural England recommends that further assessment of the potential implications of this allocation on priority habitats/habitats of principle importance is undertaken.

Highways England

Highways England have reserved their final comments to the planning application stage, however have expressed concern with proposals that have the potential to impact the safe and efficient operation of the Strategic Road Network (SRN), in this case the M25 and in particular Junction 1a. Central Road is located approximately some 2km from the junction, access to the site would be

obtained from Central Road, which adjoins directly to the A206 Bob Dunn Way and then onto junction 1a of the M25.

This area is particularly sensitive for traffic congestion issues which has a negative impact on air quality. As such, several areas around Dartford have been designated as AQMA's, including the Dartford Town Centre which is to the south of the site, and within the London Borough of Bexley to the west.

It recognises that cumulative impacts in terms of increased traffic movements would need to be considered and appropriately mitigated.

Additional details of potential traffic impact have been prepared by the promoter of the site; Highways England has not provided any further comment.

Dartford Borough Council - The site option has identified 23 hectares of fresh marsh land to the south of Bob Dunn Way. It forms part of the Northern Gateway Strategic site in Dartford's Local Plan (Core Strategy, 2011) and is protected through the Local Plan as designated Borough open space (DP24 Development Policies Plan 2017) and a local wildlife site (DP25). The site is identified as an area of green space within the strategic site (Core Strategy Policy CS3). This strategic site has the benefit of planning consents which have largely been built out. Planning conditions set out in one of these consents provides for management and maintenance of the Dartford Fresh Marshes as part of the overall development, through an ecological management plan.

A 25 year plan has been approved and includes conditions to conserve and maintain features of ecological value including the ditch network and wet grassland. This requirement should be noted in technical assessment. The planning status of the site suggests that the 'justified' assessment of this site is considered questionable by the Borough Council.

Dartford Borough Council (EHO) – The site would be accessed via Bob Dunn Way, a heavily trafficked route where nitrogen dioxide pollution levels were recorded at being 46.9 µg/m³ in 2016 (compared to an objective level of 40 µg/m³). The proposed site would introduce further HGV movements per day through an area of poor air quality.

The route along Bob Dunn Way would provide access to the A282 (M25) at junction 1a. This junction is often subjected to congestion as a result of incidents occurring at the Dartford crossing and there is concern that drivers would choose to drive through Dartford Town Centre (through Air Quality Management Areas) to avoid this congestion.

There is also concern that noise from the quarrying activities would cause disturbance to residents in Temple Hill.

CPRE – Have serious concerns over the allocation of the site. Southern part of the site lies within the adopted Dartford Core Strategy Northern Gateway Strategic Site. The western part of the site lies within an area designated as a Biodiversity Opportunity Area.

The Darent Valley Footpath runs along the west of the site and extraction will adversely impact on views from the path changing the view from looking over the grazing marsh to open water.

Kent Wildlife Trust (KWT) - The proposal overlaps with a large area of Local Wildlife Site DA04 "Dartford Marshes". This is a site of County Importance for nature conservation and represents **direct loss** of a large portion of a locally designated site which cannot be mitigated for. KWT strongly object to the allocation as it is not in conformity with national planning policy or planning guidance.

RSPB - Allocation of the site will result in direct loss of local wildlife sites and therefore RSPB are supportive of the Kent Wildlife Trust's representations on this matter.

British Horse Society – The bridleway to the east of the marshes should be kept and maintained for such use.

Request that diverted footpaths be upgraded to bridleways. Also request that the restoration makes use of the opportunity to provide new rights of way, road side margins and or/enhancement of the existing routes.

KCC Advisors

In undertaking this detailed assessment, advice has been sought from a range of technical specialists who advise the County Council on planning matters. This includes advice from on biodiversity, Public Rights of Way, noise, air quality, landscape, heritage, water resources, stability and highway and transportation interests. The views received have informed the assessment and the discussion section below. Several related standalone specialist reports have been prepared and have been published as background documents. The work has also been informed by the Project's Sustainability Appraisal work.

Views of Elected Representatives

KCC Member – David Butler

Advises that he "raise issues regarding the consultation and any plans to move this forward, and strongly voice my concerns in any form on these sites being used for this purpose.

Dartford North East has the highest traffic volume in the County and is in gridlock on most days due to the Dartford Crossing; for this reason alone it should not be considered a suitable site.

The site is in very close proximity to a housing development, This site has recently had a national TNT depot built and I already receive complaints regarding noise, pollution and overall objections.

Dartford North East has had huge construction activity over the last 5 years and will continue to for the year ahead, this will add more noise and more traffic to an already overloaded network, and a further deterioration to local air quality and overall quality of life for residents in Dartford North East and the wider Dartford.

I urge you to take this into careful consideration"

Dartford Borough Council – Jeremy Kite, MBE, DBC Leader

DBC objects to the potential allocation. There is significant local concern at the intensity of development taking place in the Borough at this time. This is leading to the residents of Dartford experiencing adverse impacts on amenity and quality of life.

The site identified in the Minerals Sites Plan Options consultation is identified as green space in the Dartford Local Plan. As the area of the site is closely related to large development sites which are well advanced, it provides much needed relief for the residents in an area of great change and intense development pressure. The Central Road Site (M7) has been planned as an integral part of the development providing for the open space needs of that scheme.

The open space needs of the local community appear not to have been taken into account. The potential loss of the open space and extraction activity in close proximity of the residential area is inherently unacceptable to the amenity of these residents and the wider community of the Borough. Inevitable dust and noise from the extraction would be compounded by pollution from the HGV's transporting materials from the site, in an area which already suffers from heavy congestion and Air Quality Management Area (AQMA) pollution level exceedances.

It is understood that mineral extraction has to take place to meet needs of society, however questions whether it is right that it is proposed within the densest and fastest growing part of Kent, where transport and development pressures are reaching capacity.

It is considered unacceptable that the small district of Dartford should have to be responsible for providing 25% of the required aggregates supply for the county whilst making an extensive contribution to housing delivery. It is not possible for the area to meet these competing and intensely impacting forms of development. The Mineral Sites Plan is being prepared in an uncoordinated manner with regard to the wider planning of the area given current National Planning Policy, however the Mineral Sites Plan cannot be prepared in a vacuum and the wider planning issues must be taken into account in preparing this Plan.

Views of local residents

Concerns raised by local residents during the options consultation included:

- Adverse impact on the local amenity due to noise, dust and vibrations
- Adverse local health impacts
- The cumulative impact with other development pressures in the area (including quarrying) will have an adverse impact on residential amenity
- General environmental blight would be caused to the area
- Adverse impact on already highly stressed highway network would be unacceptable
- Proximity to the M25 and QE2 bridge mean that any additional traffic would be unsustainable
- Adverse impact on air quality
- Contrary to the regeneration agenda for the Dartford area
- Adverse impact on human health
- Disruption to PROW (public access riverside walk)
- Skeptical about the quality of any restoration
- Increased local Flood Risk
- Does not conform to planning policy on the management of marshland
- Adverse impact on flora and fauna of the site
- Marshland should be protected
- Designated as a local wildlife site and should be left undisturbed
- Visual amenities of the undisturbed expansive open space should remain
- Serves as green space which should be protected
- Loss of property value in the locality of the site
- Site is of archaeological importance

2.0 Sustainability Appraisal

In accordance with statutory requirements a sustainability appraisal (SA) has been completed which considers how well the site performs against certain sustainability objectives. The detailed results of the SA are set out in a separate document.

3.0 Discussion

This section addresses matters raised above as well as those identified during the initial site assessment which are key to assessing the suitability of the site for allocation in the Kent Minerals Sites Plan.

Amenity

The promoted site has been assessed against policy DM11 of the KMWLP which requires that mineral development should not generate unacceptable impacts from noise, dust, vibration, odour, emissions, illumination, visual intrusion, traffic or exposure to health risks and associated damage to the qualities of life and wellbeing to communities and the environment. Similar policy protection is provided within the NPPF.

The site is surrounded by residential properties on its eastern and western boundaries, some of which are 50m away from the site. These are likely to be negatively impacted by way of noise and dust from the quarrying activities and the associated HGV movements. Concern in respect of amenity impact were expressed in many of the representations received. Potential disturbance to amenity was also raised by Dartford BC's Environmental Health Officer (EHO). The promoted site forms part of the open space requirements for strategic development that has taken place in the area. Its long-term protection from development is a significant part of the Borough's adopted local plan amenity provisions.

In respect of noise, the County Council's noise consultant (Amey) advises that mitigation by way of stand-off and screening would be required to address noise impacts, and that in principle acceptable levels of noise should be achievable.

With regard to dust and air quality considerations, the County Council's air quality advisor notes that as extraction would be from marshland the sharp sand/gravel is likely to be wet which will aid dust suppression. Extraction activity could however be constrained by existing residential receptors on to the east and west of the site which are sensitive to deposited dust and that Dartford is subject to AQMAs across the Borough which could constrain access to the site. Attention is drawn to traffic congestion in the locality which leads to a considerable number of HGV vehicles idling on local roads. Concerns regarding the impact on air quality through HGV movements are identified and that these impacts may be unmitigable.

Dartford Borough Council's EHO similarly raises concerns regarding the impacts on air quality, particularly if the vehicles were to choose to travel through the AQMA to avoid the congestion along Bob Dunn Way. The site would have to be accessed via Bob Dunn Way, a heavily trafficked route where nitrogen dioxide pollution levels were recorded at being 46.9 µg/m³ in 2016 (compared to an objective level of 40 µg/m³). The route along Bob Dunn Way provides access to the A282 (M25) at junction 1a. This junction is often subjected to congestion as a result of incidents occurring at the Dartford crossing. There is concern that HGV drivers would choose to drive through Dartford Town

Centre (through AQMA) to avoid this congestion. As a result, the proposed site would result in additional HGV movements through an area of poor air quality.

The site lies in close proximity to the County boundary with the London Borough of Bexley lying to the west. The entire Borough is designated an Air Quality Management Area. Traffic leaving the site and travelling westwards into Bexley would pass through the Bexley AQMA.

Visually, there would be a significant change to the appearance of the landscape which would be difficult to mitigate, given the proximity and height of residential property (which includes 3 and 4 storey apartment blocks) that overlook the site. Clear views of operations are likely to be available from these properties, and from the public rights of way that run around the eastern and western boundaries of the site. It is unlikely that the adverse effects from such change in view could be adequately mitigated against, due to the height of property windows and the lower level of the site than the surrounding land.

Restoration of the site would involve loss of the marsh area and the opening up of open water bodies and in the extraction phase, there would be a loss of the strategic open space and consequent impact upon local amenity.

In conclusion, the close proximity to a large residential area the lack of certainty concerning the ability to mitigate amenity impacts to acceptable levels presumes against allocation of this site.

Highways and Transportation

The proposed site has been assessed against policy DM13 of the KMWLP which requires that mineral development satisfy that the access arrangements are not detrimental to road safety, that the highway network is able to accommodate the traffic flows and will not give rise to unacceptable impact on the environment or local community and that emission control and reduction measures are proposed, particularly within an AQMA. Similar policy support is provided for within the NPPF.

Locationally, the site would access a strategically important part of the national road network (M25/J1A Dartford Crossing), which is particularly sensitive to congestion. KCC Highways as local highway authority objects to the proposed allocation. It advises that the local highway network in this location is extremely sensitive and any impact to the network and the air quality must be mitigated. Additional information is required before the Highway Authority can be satisfied in principle that the allocation is acceptable, given the air quality sensitivities in Dartford and around Junction 1. This includes:

- A capacity assessment of the Bob Dunn Way/Joyce Green Lane/ Central Road roundabout that takes account of the committed development of the recently approved application: KCC/DA/0320/2017, Joyce Green Quarry, Joyce Green Lane, Dartford, Kent, DA1 5PN.
- Further details of the access arrangement details to ensure a safe suitable point of access can be achieved, with appropriate visibility splays to be provided. Pedestrian and cycle access must also be considered when designing the access.

This information has not been provided and in the absence of this detailed information, the impact on the local highway capacity cannot be fully assessed.

Highways England have advised that any mineral site allocations need to ensure that they do not impact the safe and efficient operation of the SRN, in this case the M25 and in particular Junction 1a. It is noted that Central Road is located approximately some 2km from the junction and that access to

the site would be obtained from Central Road, which adjoins directly to the A206 Bob Dunn Way and then onto junction 1a of the M25. This area is particularly sensitive for traffic congestion issues which has a negative impact on air quality. As such, several areas around Dartford have been designated as AQMA's, including the Dartford Town Centre which is to the south of the site, and within the London Borough of Bexley to the west. Note that the air quality is considered in the amenity section above.

In light of the Highway objection, the County Council considers that even modest traffic increase will have potentially sizeable impacts on traffic conditions and air quality, particularly when viewed cumulatively with other planned development in the Dartford Local Plan. The site cannot therefore be considered suitable for allocation as a mineral extraction site.

Biodiversity

The proposed site has been assessed against policy DM3 of the KMWLP which requires that proposals do not result in unacceptable adverse impacts on Kent's important biodiversity assets. This policy was prepared in line with the NPPF which sets out similar criteria.

The site is grazing marsh, a priority habitat and a habitat of principal importance under the Natural Environment and Rural Communities Act. It is also identified as a local wildlife site – Dartford Marshes and is considered to have national importance for its water vole population. The site currently supports a wide range of flora and fauna, including a number of rare plant species, important wintering and breeding bird populations and water voles. The proposal would result in potential loss of the Coastal and Floodplain Grazing Marsh Biodiversity Opportunity Areas (BOA) Priority habitat. Development is also likely to have indirect impacts on the adjacent coastal saltmarsh and deciduous woodland priority habitats.

The promotor submitted information on ecology and how the potential impacts would be mitigated. This report demonstrated the ecological importance of the site and suggested two options for mitigation, these were the creation of off-site wetland habitat (unspecified) within existing local grazing marsh or the implementation of a phased approach with mitigation on-site (by enhancing the retained habitat). The report also committed to the reinstatement of the grazing marsh on completion of the works, though the site itself would have new open water areas and thus a net loss of current grazing marsh area.

The Council's Biodiversity advisor, however remains concerned that there is no available land to create an off-site wetland habitat and due to the ecological interest of the site, it will be difficult to mitigate for the loss of the habitat within a smaller proportion of the site (even with enhancements). The mitigation area is likely to be damaged during the extraction works due to the size of the site. It concludes that mineral extraction at this site would result in the loss of this important habitat, which is one of the last of its kind in Kent.

It is noted that the Environment Agency objects to the allocation due to the impact on biodiversity. Furthermore, whilst not the statutory body for local designations, Natural England recognised that the site would impact on several areas of priority habitat and recommended that high level ecological survey work be undertaken.

The County Council concludes that the impact of the proposal on biodiversity interests is significant, as such the site is not acceptable in principle to allocate.

Water Environment

The proposed site has been assessed against policy DM10 of the KMWLP which requires that development should result in no deterioration and improved ecological status of all waterbodies within the site and/or hydrologically connected to the site. This policy was prepared in line with the NPPF.

The use of wet working negates the need to de-water the active quarried area.

Flood risk

The site is within Flood Zone 3 (1% or 1 in 100 annual probability of flooding). The Environment Agency made no adverse comments regarding flood risk, acknowledging that sand and gravel extraction represents a “water compatible” development and would not increase the overall flood risk characteristics of the site and the wider area. Further information, detailing how the proposal could impact the integrity of nearby flood defences would be required should the site be allocated.

The County Council’s Flood Risk Assessment carried out in July 2018, recognised that the land drains present on site may need to be diverted to facilitate the development, and that the land drain to the eastern boundary of the site should be retained. The report concluded that further hydraulic modelling would be required to establish the impact of the development on the wider water environment. This view was shared by the Environment Agency who requested further information on the hydraulic relationship of the site on the River Darent and the wetland/marshland to the north of the site.

The site overlies a chalk aquifer and is in SPZ2 for a public water abstraction borehole. The site is bounded in the west by the River Darent. Should the site progress, evidence would be necessary at planning application stage to demonstrate that the hydrology and water quality of the river will not be affected by mineral extraction operations or restoration plans, that activity would not affect the aquifer or its water quality and that appropriate pollution control measures could be employed

The County Council concludes that the information requested to establish the impact on the water environment is a matter that could be addressed at planning application stage. In principle, there is no overriding water resource interest that renders the site unsuitable for allocation.

Historic Environment

The proposed site has been assessed against policy DM5 of the KMWLP which requires that there should be no unacceptable adverse impact on Kent’s historic environment taking account of mitigation and compensation and heritage assets be conserved in a manner appropriate to their significance. This policy was prepared in line with the NPPF which sets out similar criteria.

Historic England has been consulted on the proposal to allocate this site for mineral working and it has not raised any specific concerns.

The Council’s Archaeological Officer considers that there is potential for Palaeolithic remains associated with prehistoric activity. Further work is required to establish the potential importance of any remains and the acceptability of any mitigation. In the absence of this, it is not possible to demonstrate compliance with policy requirements. Normal planning permission conditional pre-commencement controls would be able to ensure that any such remains are investigated appropriately

Land Stability

The proposed site has been assessed against policy DM18 of the KMWLP which expects that planning permission for development will not be granted unless it is demonstrated that development will not result in land instability. This policy was prepared in line with the NPPF.

The County Council's land stability report includes consideration of the site's proximity to sensitive receptors such as sewage lines, electricity pylons and Thames Water Infrastructure. It concluded that the site itself was considered to have low risk of instability, however with extraction this risk is raised to moderate in terms of the site itself and neighbouring properties. Neighbouring infrastructure could be impacted such as the electricity pylons within the site, the Darent River Levees Sewer, Bob Dunn Way Embankment and Thames Water Infrastructure. These features could be mitigated with appropriate standoffs and diversion where necessary. Details of which could be a matter for any planning application stage. An application would need to be accompanied by a quantitative slope stability assessment.

In conclusion, there is no overriding case not to allocate the site based on land stability matters at this time.

PROW

The proposed site has been assessed against policy DM14 of the KMWLP which requires that where proposals impact a PROW, they will only be permitted if; satisfactory prior provisions for diversion of the PROW can be made which are convenient and safe for the PROWs users, an acceptable alternative route can be provided during operations and restoration, and opportunities to improve countryside access are taken wherever possible. This policy was prepared in line with the NPPF which sets out similar criteria.

A public bridleway (DB4) sits to the east of the site. This is separated from the site area by Central Road, so is unlikely to be directly impacted by the proposals, however its setting will be affected. Public footpath DB1 runs along the western boundary (following the course of the River Darent) of the site which is more likely to be affected. Mitigation would need to be employed in both cases, most likely a combination of screening and stand offs, although it is recognised that it is unlikely that views into the site from the paths can be fully mitigated.

KCC PROW officers have made no adverse comments on the proposal, and as such the County Council concludes that the impact on PROW's does not constitute a reason for not allocating the site.

Landscape

The proposed site has been assessed against policy DM2 of the KMWLP which aims to ensure that there are no acceptable adverse impacts on important landscapes. This policy was prepared in line with the NPPF which sets out similar criteria. Impacts on visual amenity are assessed against policy DM11 that seeks to ensure that minerals development is unlikely to generate unacceptable adverse impacts from visual intrusion.

The site forms part of the Northern Gateway Strategic site (NGSS) in the Dartford Local Plan (Core Strategy, 2011) and is protected as designated Borough Open Space (policy DP24) in the Development Policies Plan 2017 and a local wildlife site (policy DP25). The site is also identified as an area of green space within the Strategic Site to which Core Strategy Policy CS3 applies. The NGSS site now has the benefit of planning consents which include the area of the Dartford Fresh

Marshes. The consents have largely been built out, leaving the remaining area to form an important and protected undeveloped area within the local landscape. The Borough Council has secured a long term management plan to ensure that the land is secured for the open space requirements to support the urban growth in this part of Dartford. This agreed 25 year management plan requires the conservation and maintenance of features of ecological value including the ditch network and wet grassland.

The County Council's landscape advisor's consider that development of the site would have a significant impact on the priority habitat inventory and local wildlife site designation. Any habitat creation through restoration and careful choice of planting and landscape design would enable the adverse effects caused by the extraction activities to be mitigated. However, there is significant doubt that the proposed ecological imitation in the restoration plans proposed would be appropriate given the LWS designation. Whilst, in the longer term, mineral extraction would enable the land to remain open and free of built development, the landscape would be significantly altered reducing its local value that the local plan strategy has identified. On this basis, the County Council considers that the mineral development of the site would be contrary to the objectives of Policy CS3 of the adopted Dartford Borough Local Plan.

The County Council concludes that the impact on the local landscape would likely to be negative, in that the inevitable change to the landscape would not be enhanced by increased ecological value and the site's local landscape value, as undisturbed open space, would have been significantly eroded and would not be in accordance with Policy DM2 Environment and Landscape Site of International, national and Local Importance.

Soil Quality

The proposed site has been assessed against policy DM1 of the KMWLP which requires that proposals demonstrate that there is no unacceptable adverse impact on the use of other land for other purposes possible. This policy was prepared in line with the NPPF.

Natural England's Agricultural Land Classification Map states that the site comprises grade 2 (very good) and grade 3a (good to moderate) agricultural soil. If the site is worked the soil quality will be lost if restoration is proposed to be to wetland habitat. The site is however in use as marshland and as considered above has an important open space function to support urban growth within the Dartford area. Mineral development at this site is unlikely to result in an overriding loss of agricultural soils.

Cumulative Impact

The proposed site has been assessed against policy DM12 of the KMWLP which expects that mineral development should not result in an unacceptable adverse, cumulative impact on the environment or communities. This policy was prepared in line with the NPPF which sets out similar criteria.

It is recognised that mineral working has taken place in the surrounding area of the Darent Valley in the past, with particular regard to the ongoing quarrying operation at Joyce Green Quarry, immediately to the north of the promoted site. The KMWLP notes that cumulative impacts may occur where separate developments occur near to each other and there is a need for such impacts to be taken into account. In this instance, the assessment of potential cumulative impacts which could arise from development in this location relate to the impacts from HGV movements and the

consequential impact on air quality. From the evidence available these would give rise to unacceptable cumulative impact.

Need for the Mineral

The proposed site has been assessed against policy CSM2 that sets out the requirements for the supply of sharp sand and gravel. This policy was prepared in line with NPPF.

Calculations regarding supply and demand based on 2017 data, taken together with an 18-year landbank, suggest the shortfall is now in the order of 5.75mt for sharp sand and gravel¹⁰. The yield from this site is estimated to 0.9m tonnes which would make a significant contribution to supply requirements.

Whilst it is recognised that there is a need to allocate the site on national planning policy grounds in respect of mineral need, the adopted KMWLP Policy CSM2 makes it clear that the requirement will be planned for “... *while resources allow*”. It therefore follows, that if the site is unacceptable in principle and cannot be allocated, the adopted policy recognises that demand will be met from other sources. These are principally a combination of recycled and secondary aggregates, landings of MDA (marine dredged aggregate), blended materials and imports of crushed rock through wharves and railheads. The actual proportions will be decided by the market.

4.0 Conclusion - M7: Land at Central Road, Dartford

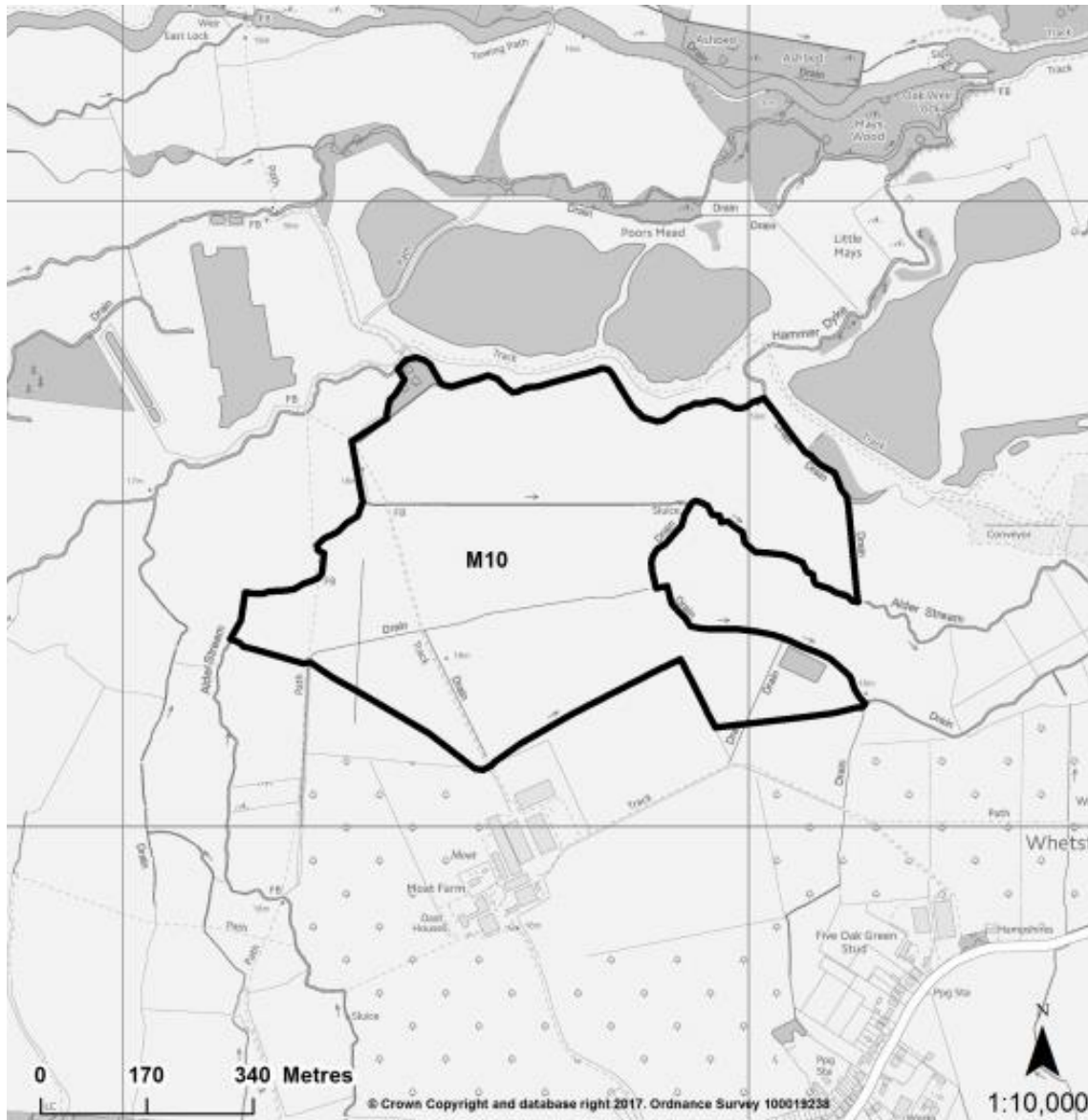
The information submitted in support of this promoted site is limited. Whilst some matters are capable of being addressed in detail at the planning application stage, the County Council considers that from the information available, the site gives rise to unacceptable impacts on a number of key matters. In particular, these relate to highway impacts on Bob Dunn Way (A206) and the M25 Junction 1a (Dartford Crossing), loss of biodiversity habitat, impact upon Local Wildlife Sites (LWS) and UK Biodiversity Action Plan (BAP) interests, impacts on residential amenity, air quality impact on AQMAs and conflict with Local Plan open space objectives

The County Council is therefore unable to conclude that the M7 site At Central Road, Dartford is acceptable for allocation. The site is not identified as a site in the Pre-Submission draft of the Mineral Sites Plan.

¹⁰ See Sharp Sand and Gravels Topic Paper 2018

M10: Moat Farm, Five Oak Green, Capel – Sharp Sands and Gravels

Site Location Plan



1.0 Matters addressed by Detailed Technical Assessment

Matters Identified by the Initial Site Assessment

As set out in section 3 of this report, the initial assessment of the site identified a number of matters which would require further consideration, these were:

- Impact on landscape and the High Weald Area of Outstanding Natural Beauty (AONB)
- Impact on biodiversity
- Impact on historic environment
- Impact on water environment

- Loss of grade 3 quality soil
- Impact on local amenity
- Impact on the Green Belt
- Impact on Public Rights of Way (PROWs)
- Cumulative impact with other developments and quarrying operations within the area

Matters Raised During the Options Consultation

The matters raised during the public consultation on this site are summarised below.

Views of key organisations

A summary of the responses from key organisations, including statutory consultees, is set out below which sets out the nature and extent of the concerns of such consultees especially with regard to the matters listed above.

Environment Agency (EA)

Biodiversity: The Alder stream passes through the middle of this site. The EA would oppose the creation of online lakes [that would have continuity with the Alder Stream (KCC)]. There is the potential for river restoration to be delivered as part of the exploitation of this site subject to other concerns including flood risk. Further information required about the proposal to be able to assess it fully.

Groundwater: The site overlies the gravel aquifer and is near the edge of an SPZ3 for a public water abstraction borehole. Relevant constraints would be imposed on a specific application for restrictions on depth of excavations, pollution control methods and ways of working to safeguard against aquifer disturbance or impacts on water quality.

Water Resources: The site poses no immediate Water Resources risk provided that the final restoration plan fully recognises the need to ensure that the Alder Stream's function, alongside smaller ditches and ditches, are retained.

It is anticipated that appropriate mitigation measures, substantiated through a detailed programme of monitoring, will be necessary in order for the applicant to demonstrate with certainty that the Moat Farm workings, both during the operational and restoration phases do not have a detrimental impact.

The hydraulic relationship between the previously worked excavations [now flooded], to the immediate north and the local drainage ditches, some of which may be ephemeral will need to be verified. This need is particularly relevant should dewatering be employed and as such the applicant will need to develop a sufficiently robust mitigation plan so as to ensure that local levels are not compromised to the extent that water dependent ecosystems are derogated.

The restoration plan indicates an ambition to restore to phased wetland. There will be a need to demonstrate how the wetlands will be managed so as not to compromise the integrity of the Alder Stream and the function of those unnamed drainage ditches in the immediate vicinity of the site.

A Licence will be required from the Environment Agency, should there be a requirement to dewater at Moat Farm.

Given that the site is also within an aquifer SPZ waste activities are to be avoided.

Flood Risk: The site falls within a High Risk Flood Zone (FZ3). The aggregate materials should be extracted in a way which does not increase flood risk. A detailed Flood Risk Assessment, approved by the EA, must demonstrate that development would not increase flood risk to the area.

Natural England – The site does not fall within any SSSI/protected landscape impact risk zones so is unlikely to impact any statutory designated nature conservation sites or protected landscapes. It is considered that there may be an opportunity to restore the site to wetland/open water habitat.

Tonbridge and Malling Borough Council

Cumulative impacts: In this part of the borough the concern is the cumulative impacts of several sites operating at the same time which could be severe if not properly planned for and managed. Of particular concern is the cumulative impacts of noise, dust and vibration from the mineral operations and transportation on the amenity of nearby residents. In addition, cumulative impacts on flood risk, including surface water flooding should be assessed. Options for minimising these impacts and preventing unacceptable adverse impacts need to be fully explored.

Landscape: The sites lie within close proximity of the High Weald AONB and there are several long-range vistas that can be enjoyed from the vicinity of the site. It is important that these are respected during the operation and restoration of the sites and that unacceptable adverse impacts are prevented.

Heritage: There are Listed Buildings within close proximity of the site. Every effort should be made to protect these important heritage assets and their settings and unacceptable adverse impacts should be prevented.

Tunbridge Wells Borough Council (TWBC) - TWBC is concerned that current development and future growth will be impacted by the mineral extraction activity from this site. TWBC have particular regard to the following, both in terms of the impact of the site and in terms of cumulative impact, they are:

- Transport links, including highway safety and the operation of the highway network.
- Residential amenity, including in terms of impact via noise, dust, vehicle movements, air quality, vibration, etc;
- Landscape impacts, including the setting of the High Weald Area of Outstanding Natural Beauty;
- Heritage: there are areas of potential archaeological importance within the vicinity of the allocations, as well as a number of Listed Buildings (some of which form part of historic farmsteads), the settings to which are important;
- Ecology, including Local Wildlife Sites;
- Trees, including areas of Ancient Woodland;
- Flooding, both in terms of surface water and groundwater;
- Pollution, including in terms of the aquifer protection zone;
- Impact on the Green Belt, particularly having regard to the potential growth through the new TWBC Local Plan.

South East Water (SEW) - The quality of the water abstracted in the vicinity of the water courses close to the site should not be impacted. Further hydrological assessment was undertaken for the adjoining Option site (M13 Stonecastle Farm) to address if extraction of the mineral resources posed

any risk of adverse impact to the potable supply which addressed SEW's concerns in principle.

CPRE Kent - allocation opposed on the following grounds:

- This is a remote and isolated site for which access will be difficult;
- Impact on local roads and neighbourhood from HGVs;
- Impact on public right of way;
- Potential visual impact from the High Weald AONB;
No details of any buildings and processing plant which may impact the openness of the Green Belt and so be in conflict with national Green Belt policy.
- Negative cumulative impact taking account of the Stonecastle Farm site.
Consideration should be given to restoring the site to agriculture.

Kent Wildlife Trust -

- Detailed mitigation strategies required to avoid any negative impact upon biodiversity will be required with any planning application. Where this mitigation is not possible, or it is not possible to avoid negative impact through mitigation measures then a compensation package must be provided and detailed in advance of any planning approval.
- NPPF requirement for enhancement of biodiversity should be sought wherever possible as well as "net gain" for wildlife.
- Reference should be made to Biodiversity Opportunity Areas when restoring land after mineral extraction to help focus habitat creation on habitats and species of County importance.
- The opportunity for habitats of nature conservation interest created by wet restoration should include consideration of future management after the site has been restored, including the financial information relating to long-term management.

KCC Advisors

In undertaking this detailed assessment, advice has been sought from a range of technical specialists who advise the County Council on planning matters. This includes advice on biodiversity, Public Rights of Way, noise, air quality, landscape, heritage, water resources, stability and highway and transportation interests. The views received has informed the assessment and the discussion section below. Several related standalone specialist reports have been prepared and have been published as background documents. The work has also been informed by the Project's Sustainability Appraisal work.

Views of local residents

Concerns raised by local residents during the options consultation included:

- Adverse impact on the local amenity by way of noise, dust, visual intrusion and vibrations
- Adverse impact on the historical assets and the archaeology of the area
- Strain on the local highway network, local roads are too narrow and unsuitable; the continued use of the access onto the A228 Whetsted Road is unacceptable
- Disruption of the landscape and on the High Weald AONB
- Adverse impact on the Green Belt
- Adverse impact on local water resources
- Adverse impact on flora, fauna and fragile geological interests

- Lack of economic viability of mineral deposit
- Adverse impact on quality of life and a cumulative impact with other workings that is unacceptable
- Poor restoration record at nearby sites, reed bed planting along artificial lake margins are a significant change to the landscape
- Adverse impact on PROWs

2.0 Sustainability Appraisal

In accordance with statutory requirements a sustainability appraisal (SA) has been completed which considers how well the site performs against certain sustainability objectives. The detailed results of the SA are set out in a separate document.

3.0 Discussion

This section addresses matters raised above as well as those identified during the initial site assessment which are key to assessing the suitability of the site for allocation in the Kent Minerals Sites Plan.

Amenity

The promoted site has been assessed against policy DM11 of the KMWLP which requires that mineral development should not generate unacceptable impacts from noise, dust, vibration, odour, emissions, illumination, visual intrusion, traffic or exposure to health risks and associated damage to the qualities of life and wellbeing to communities and the environment. Similar policy protection is provided within the NPPF.

The site is remote from any main areas of local residential receptors. The nearest dwelling is Moat Farm to the south around 200 metres away although it is screened by existing farm buildings. There are some agricultural workers' residential caravans within Moat Farm which would be within 50-60 metres from the site.

It is recognised that air quality is good and local sources of pollution are largely confined to agricultural sources and local road traffic. There are receptors on Whetsted Road to the south (500m), but such is the distance any dust transported off-site would be well dispersed. Generation of dust is expected to be minimal from extracted sand and gravel particularly if transported in enclosed conveyors. In addition, the mineral would be wet worked and thus would be self-mitigating in dust generation terms at the point of extraction. Also, the mineral would be transported northwards to the processing plant at the adjoining site (Stonecastle Farm) away from the seasonal worker accommodation at Moat Farm.

The ambient noise climate is likely to be low due to the remoteness and any mineral development may require mitigation to eliminate potential adverse noise impact particularly with regards to the agricultural workers' accommodation. Consideration will need to be given to the site access and haulage routes in order to avoid adverse noise impact from HGVs passing through Five Oak Green and Whetsted which may be problematic due to the local road network not being appropriate for HGV use. Overall it is considered unlikely that noise impacts would cause any unacceptable impacts on the local amenity.

The cumulative impact of emissions from the increase in HGVs at Stonecastle Farm Quarry to where the extracted material will be conveyed would be required. The protection of health and amenity from HGVs is considered to be fully achievable. It is considered that appropriate mitigation against any potential adverse impacts from extraction operations are fully achievable.

It is concluded that mitigation is likely to be achievable, and it is unlikely that any amenity impact would be so severe that the site should not be developed.

Note that consideration of impacts on visual amenity are considered below.

Highways and Transportation

The proposed site has been assessed against policy DM13 of the KMWLP which requires that minerals development satisfy that the access arrangements are not detrimental to road safety, that the highway network is able to accommodate the traffic flows and will not give rise to unacceptable impact on the environment or local community and that emission control and reduction measures are proposed, particularly within an AQMA. Similar policy support is provided for within the NPPF.

Provided any extraction at Moat Farm (where use of the adjoining Stonecastle Farm Quarry processing site and access to the Whetsted Road will be required) is not concurrent with extraction of any reserves at Stonecastle Farm, does not exceed the current level of permitted extraction-and trip rates are no greater than the existing planning permission at the Stonecastle Farm site, the highway impacts of the site would be acceptable.

The Council's assessment of the potential impacts on highways and transportation concludes that there are no highways grounds to prevent allocation of the site.

Landscape and Visual Amenity

The proposed site has been assessed against policy DM2 of the KMWLP which aims to ensure that there are no acceptable adverse impacts on important landscapes, including the High Weald AONB, and sets out the circumstances where impacts upon them would be acceptable. Policy DM2 notes that proposals outside, but within the setting of an AONB will be considered having regard to the effect on the purpose of conserving and enhancing the natural beauty of the AONB. This policy was prepared in line with the NPPF which sets out similar criteria. Impacts on visual amenity are assessed against policy DM11 that seeks to ensure that minerals development is unlikely to generate unacceptable adverse impacts from visual intrusion.

The High Weald AONB is located approximately 1.8km south of the site.

Assessment of landscape impacts concludes that given the nature of proposed activities at the site; excavation below existing ground levels, elements of plant that are relatively low in height, and the character of the AONB itself (extensive dense tree cover), there are expected to be few, if any, locations within the designation from which views of development at the site would be available. As changes at the site are unlikely to have any notable influence upon land within the AONB boundary, it can be reasonably concluded that the presence of minerals extraction operations at the site would not materially affect the statutory purposes and special qualities of the High Weald AONB. The High Weald AONB unit has not raised any concerns.

As proposals for the site are developed in greater detail at any planning application stage, mitigation measures intended to reduce or prevent adverse landscape and visual effects should be incorporated into the design of such proposals. Particular focus will have to be given to minimising adverse visual effects from the property at Moat Farm, and those properties to the south and east

where views into the Site are anticipated to be available.

Overall the County Council considers that subject to certain matters being satisfactorily addressed at the planning application stage, the site is acceptable in principle on landscape grounds.

Biodiversity

The proposed site has been assessed against policy DM3 of the KMWLP which requires that proposals do not result in unacceptable adverse impacts on Kent's important biodiversity assets and SSSIs. This policy was prepared in line with the NPPF which sets out similar criteria.

The site is bordered to the north-west by Ancient Woodland with further Ancient Woodland within 500m of the site to the south-west.

It is considered that the fields may be utilised by ground nesting birds/wintering birds and the site boundaries may contain suitable habitat for breeding birds, reptiles, and water voles. The site has some potential to impact habitats for protected/notable species, but it is limited, and appropriate mitigation can be implemented. Therefore, information assessing the ecological impact can be addressed as part of any planning application.

There would need to be an appropriately sized buffer between any extraction area and the Ancient Woodland. Again, this could be addressed within any planning application.

It is concluded that the area is of limited ecological value and any adverse impacts could be addressed during the normal planning application stage which considers mitigation measures. Stand offs to protect the Ancient Woodland to the north of the site would address the Environment Agency's concern for any incursion to the stream that bounds the northern area of the site.

Overall, the County Council does not consider there to be any biodiversity grounds to prevent allocation of the site.

Historic Environment

The proposed site has been assessed against policy DM5 of the KMWLP which requires that there should be no unacceptable adverse impact on Kent's historic environment taking account of mitigation and compensation and heritage assets be conserved in a manner appropriate to their significance. This policy was prepared in line with the NPPF which sets out similar criteria.

Moat Farm is a listed building and the setting and character of this heritage asset will require to be assessed to ensure the building and its setting are not significantly adversely affected. Given that there is an at least 170m separation between the nearest boundary of the site (not necessarily active workings) largely reduces the impacts that could be regarded as adverse to the integrity of the building. In the longer term, the wetland restoration will alter the character of the setting of the building. Provided landscaping of created lake margins are undertaken sensitively e.g. with native planting, this change is unlikely to be entirely incompatible with this heritage asset.

Historic England has been consulted on the proposal to allocate this site for mineral working and it has not raised any specific concerns.

The Council's Archaeological Officer considers that there is potential for Palaeolithic remains within the sediments that make up the sand and gravel deposit to be present. Normal planning permission conditional pre-commencement controls would be able to ensure that any such remains are investigated appropriately.

Need for the mineral

The proposed site has been assessed against policy CSM2 that sets out the requirements for the supply of sharp sand and gravel. This policy was prepared in line with NPPF.

The deposit in this location constitutes river terrace sand and gravels.

Calculations regarding supply and demand based on 2017 data, taken together with an 18-year landbank, suggest the shortfall is now in the order of 5.75mt for sharp sand and gravel¹¹. The yield from this site is estimated to be 1.5 million tonnes which would make a significant contribution to supply requirements.

British Geological Survey data indicates that terrace sands and gravel is an economic mineral. The actual economic viability of any one particular deposit largely depends on the local economy and specification for quarried materials supply. While the material may not currently have significant market demand, workings have occurred in the past in the locality and thus the economic viability of the deposit may improve, particularly as other land-won resources are increasingly depleted.

Green Belt

The proposed site has been assessed against policy DM4 of the KMWLP which states that development within the Green Belt will be considered in light of its potential impacts and shall comply with national policy and the NPPF policy on Green Belt.

The site is within the Metropolitan Green Belt. Mineral extraction is not considered on its own to be inappropriate development, however structures such as bunds, plant and machinery which may impact of the openness of the Green Belt can be considered to be inappropriate development.

The arrangement with regards to plant and machinery are known, in that they will not be on the site and any screening bunds will not essentially be required. Restoration is proposed to open water.

As such, it is concluded in principle that, as the mineral extraction is not inappropriate development and such development in this location would preserve openness and not conflict with the purposes of including land within the Green Belt, allocation of this site would not conflict with policy on Green Belt.

Water Environment

The proposed site has been assessed against policy DM10 of the KMWLP which requires that development should result in no deterioration and improved ecological status of all waterbodies within the site and/or hydrologically connected to the site. This policy was prepared in line with the NPPF.

The use of wet working, that being the extraction of materials from below the water table level, negates the need to de-water the active quarried areas and thus there would be no increased turbidity (and suspension of sediment) in the abstraction water column that South East Water Limited have expressed concern over. Provided this method of extraction is secured at any planning application stage and a monitoring regime imposed by condition of that consent as agreed with SE Water and approved by the County Council there are no grounds to resist the allocation of the site. Such matters are normal to detailed planning application stages of mineral development.

¹¹ See Sharp Sand Topic Paper, 2018

Flood risk

The EA have stated that any proposals must be accompanied by a detailed Flood Risk Assessment which demonstrated the activities to be undertaken do not increase flood risk to the area, this must be approved by the EA. This is normal for mineral development at the planning application stage. The Strategic Flood Risk Assessment for the site shows that the majority of the site is located within Flood Zone 3 – an area considered to be at flood risk with a 1% (1 in 100) or greater annual probability of fluvial flooding. Land in the south-eastern extent of the site is located within Flood Zone 2 – an area considered to be at flood risk with between a 1% and 0.1% annual probability of flooding.

The area which is low lying within a flood plain is inherently susceptible to flooding. Mineral development, however is not a form of development that is highly sensitive to flooding (unlike residential development). Mineral extraction in a flood plain, when left as an open water body on restoration, is essentially neutral with regard to whether the activity increases flood risk.

Soil Quality

The proposed site has been assessed against policy DM1 of the KMWLP which requires that proposals demonstrate that there is no unacceptable adverse impact on the use of other land for other purposes possible. This policy was prepared in line with the NPPF.

Natural England's Agricultural Land Classification Map states that the site comprises grade 3b agricultural soil which is considered to be moderate soil which has limitations on the range of crops it can yield. Furthermore, due to the limited size of the site it is not considered that development in this location would lead to a significant loss of agricultural soils.

PROW

The proposed site has been assessed against policy DM14 of the KMWLP which requires that where proposals impact a PROW, they will only be permitted if; satisfactory prior provisions for diversion of the PROW can be made which are convenient and safe for the PROWs users, an acceptable alternative route can be provided during operations and restoration, and opportunities to improve countryside access are taken wherever possible. This policy was prepared in line with the NPPF which sets out similar criteria.

Footpaths WT159 and WT158 cross the western extent of the site, while footpath WT169 runs along the southern boundary of the site. It is considered that although, the two footpaths located on site would likely require extensive, and potentially permanent diversion (as the proposed site restoration is wetland habitat) this does not preclude the site from being allocated.

Cumulative Impact

The proposed site has been assessed against policy DM12 of the KMWLP which expects that mineral development should not result in an unacceptable adverse, cumulative impact on the environment or communities. This policy was prepared in line with the NPPF which sets out similar criteria.

It is recognised other proposed site allocations for mineral working are in the surrounding area. The KMWLP notes that cumulative impacts may occur where separate developments occur near to each other and there is a need for such impacts to be taken into account. The assessment of potential impacts which could arise from development in this location has not revealed that unacceptable

cumulative impacts would arise that could not be satisfactorily mitigated against, however cumulative impacts will require further consideration if a proposal were to come forward.

4.0 Conclusion - M10: Moat Farm, Five Oak Green, Capel

It is considered that the volume of sharp sand and gravel needed to meet KMWLP requirements can be supported by allocation of the M10 Moat Farm site. It is considered that adverse impacts associated with mineral development in this location can be addressed and satisfactorily mitigated through the normal planning application process, seeking further views of consultees and technical advice where appropriate.

Therefore, it is considered that the site should be allocated with a requirement that any application addresses development management policies, with particularly reference to the following considerations:

Transport

- A detailed transport assessment to demonstrate compliance with KMWLP policy DM13.
- Mineral must be removed from the site via the Stonecastle Farm site to the north such that access onto the highway network is achieved using the existing and approved access for the Stonecastle Farm Quarry.
- The site shall only be worked sequentially to the permitted phases at Stonecastle Farm Quarry or the Moat Farm Quarry (should planning permission be granted for this latter site).
- To avoid unacceptable impacts on the local highway network the M13 Stonecastle Farm Extension, the Moat Farm Site (M10) and the permitted Stonecastle Farm Quarry shall not be worked concurrently.
- Proposals for the diversion for PROW will be required which show how connectivity of the surrounding PROW network will not be lost.

Water Resources

- A 16 metre buffer should be provided between extraction and nearby watercourses to alleviate flood risk in the area. Furthermore, should the Alder Stream require diversion, this should be subject to EA approval and hydraulic modelling must be undertaken to inform the diversion route and the potential impact on flood risk elsewhere.
- Any restoration works should not include raising the ground levels over existing levels as this will have an adverse impact on flood risk. Wetland restoration is preferable.

Biodiversity

- Any proposal would need to be accompanied by a detailed ecological appraisal setting out any mitigation measures needed to ensure there are no unacceptable impacts on Kent's biodiversity assets
- Any operations should exclude the Ancient Woodland and a suitable buffer should be employed as to not impact on the designation directly or indirectly.

Health and Amenity

- Compliance with policy DM11 of the KMWLP in respect of health and amenity.
- A lighting, noise, dust, odour and vibration management plan should be completed, setting out how unacceptable impacts will be avoided. A detailed dust assessment and management

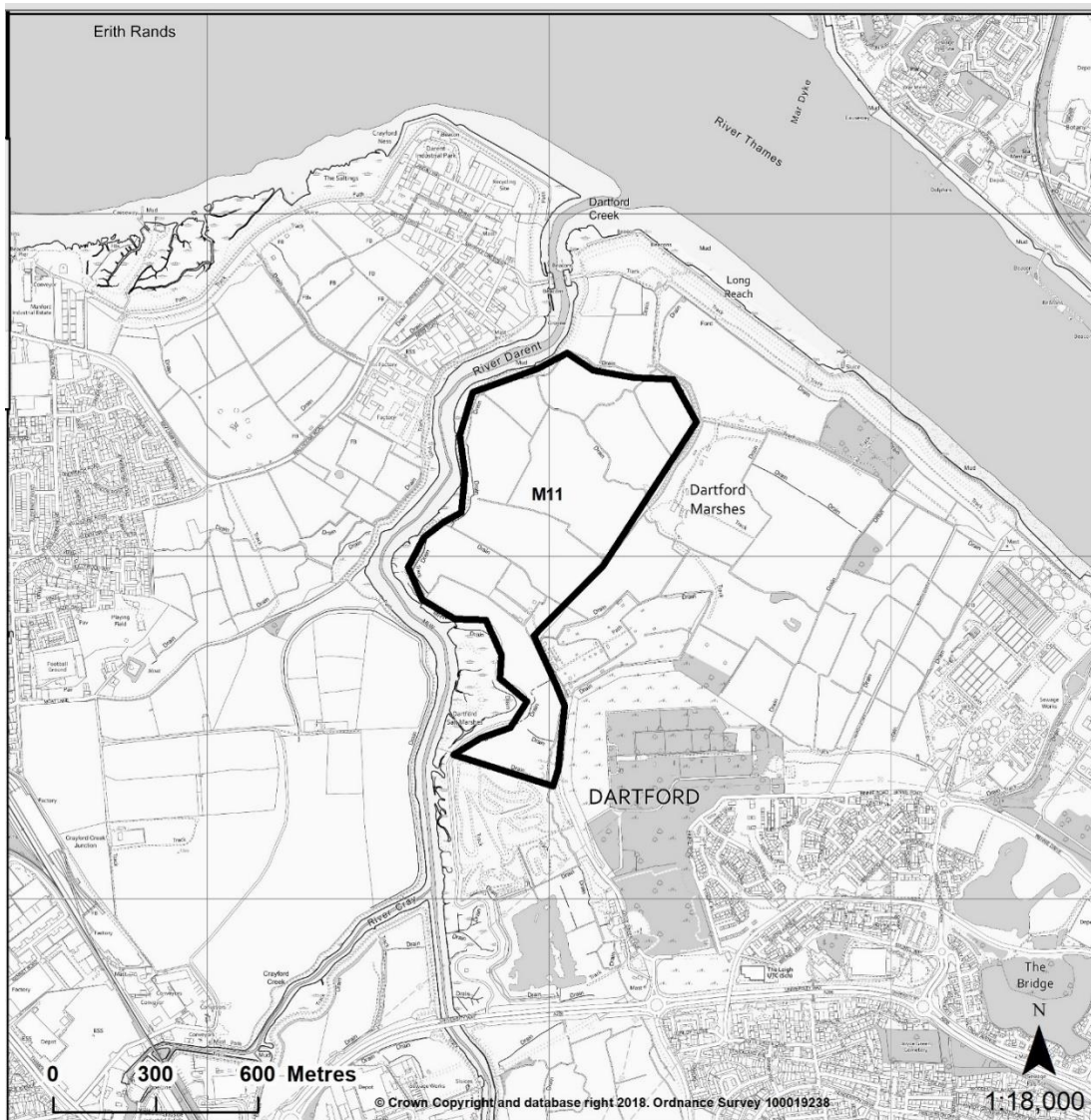
plan should be submitted which follows best practice and any national Government guidance (e.g. Planning Practice Guidance).

Heritage

- There is potential for Palaeolithic remains within the site. Therefore, any planning application should be accompanied by a full archaeological impact assessment to ascertain the extent of such remains.

M11: Joyce Green Farm Quarry Extension, Dartford - Sharp Sand and Gravel

Site Location Plan



1.0 Matters addressed by Detailed Technical Assessment

Initial Assessment

The initial assessment of the site identified a number of matters which would require particular consideration, these were:

- Impact on landscape
- Impact on biodiversity
- Impact on the historic environment
- Impact on the water environment
- Impact on air quality
- Loss of grade 3 agricultural soil
- Impact on Public Rights of Way (PROWs) and their setting
- Impact on the highway network

- Impact on health and amenity
- Cumulative impact with other development in the area
- Site is within the Green Belt

Matters Raised during the Options Consultation

The matters raised during the public consultation on this site are summarised below.

Views of key organisations

A summary of the responses from key organisations, including statutory consultees, is set out below which sets out the nature and extent of the concerns of such consultees especially with regard to the matters listed above.

Environment Agency (EA) – Object /Raises concern/objection in respect of ecological impacts, groundwater, water resources and flood risk:

Ecology

Objection, without further information being presented as to how the impacts of this development can be adequately mitigated. The site contains significant lengths of ditches and provides an important range of habitats as part of the Local Wildlife Site (LWS).

The EA considers that in order for the site to be allocated, the site would require the re-creation of ditches in order to accommodate protected species and provide important habitats integral to the Local Wildlife Site designation. The EA considers that it is unclear how this can be achieved and that further information is required to demonstrate that this site is suitable for mineral extraction.

The EA disagrees with the initial site assessment (RAG) rating in respect of the sustainability assessment - while the objective to have no impact on important elements of biodiversity and where possible positively contribute to the Kent Biodiversity Action Plan (BAP) is good, it is not possible for this to be achieved (on the information available) within the boundary of the site. Therefore, the RAG screening and comments associated with it are not accurate. No information has been provided as to how mitigation can be delivered, thus the site should score as 'red' until this is provided and found satisfactory.

Groundwater

Sampling of the made ground should be carried out to prove that the ground is clear of leachable contamination, which may impact local water quality if the ponds increase outflows from underlying materials.

Pollution prevention measures that reflect best practice will be required to protect water resources.

Water Resources

The EA considers that the proposed excavation of mineral at Joyce Green Quarry poses a Low Water Resources risk. It is anticipated that appropriate mitigation measures, substantiated through a detailed programme of monitoring, will be necessary in order to prove beyond reasonable doubt that the quarry activities do not have a detrimental impact on the following aspects;

- how the Dartford Marshes will continue to function hydraulically, following the extraction of mineral, recognising that the creation of a lake will cause a significant change to the local hydrology, relative to the existing 'fabric' of drains and ditches that constitutes the Marsh; and

- Should dewatering be employed at Joyce Green Quarry there will be a need to demonstrate how brackish/ saline ingress will be managed, given the proximity to the River Darent's tidal reach during the operational phase.
- A licence should be sought from the EA should there be a proposal to dewater the site.

Flood Risk

No objection to the proposed M14 site on flood risk grounds, the proposed mineral site falls within the High Risk Flood Zone as shown on the Agency's Flood Map:

The site falls within Flood Zone 3 (FZ3) as described in Table 1, of the Technical Guidance to the National Planning Policy Framework. Local Authorities are guided to adopt a precautionary approach to the issue of flood risk, avoiding such risk where possible and managing it elsewhere.

Table 2, paragraph 066 of the Planning Practice Guidance acknowledges that sand and gravel deposits are 'water compatible' developments. This means they must be worked where they occur, and so likely to exist within a Flood Zone. However, they must still be worked in ways that do not increase flood risk. The proposals for minerals extraction that are situated in FZ3 must be accompanied by a detailed Flood Risk Assessment (FRA), which demonstrates the activities they intend to undertake do not increase flood risk to the site or surrounding area. This must be approved by the Environment Agency.

The Joyce Green Quarry site (Dartford) has flood defences either on or adjacent to the site. The EA require detailed information about the distance of the extraction from the flood defences and how any extraction could impact the integrity of the flood defence.

Highways England

Highways England will be concerned with proposals that have the potential to impact the safe and efficient operation of the SRN, in this case the M25 and in particular Junction 1a. The site is located approximately 2km from the junction.

From the available information, it seems the site would undoubtedly have an impact on M25 Junction 1a, an already congested junction

Highways England are in agreement with the County Council that vastly increased HGV movements associated with the transportation of inert restoration materials would be very unlikely to be acceptable and a Transport Assessment will be required at the time of the application demonstrating the vehicle movements associated with the extension of the site. Accordingly, the construction and operational impacts of the site on the SRN needs to be considered, both individually and cumulatively in order to for us to be satisfied that the proposals will not materially affect the safety, reliability and/or operation of the SRN (the tests set out in DfT C2/13 and DCLG NPPF para 32). If the impact of the proposals is detrimental to the safe and efficient operation of the SRN mitigation would be required to ensure that the impact upon the local road infrastructure is reasonable.

Additional details of potential traffic impact have been prepared by the promoter of the site; Highways England has not provided any further comment.

Natural England

The allocation is likely to:

- Result in a partial loss of Coastal and Floodplain Grazing Marsh priority habitat

- Have indirect impacts to the adjacent Coastal Saltmarsh priority habitat

Further assessment should be undertaken to assess the implications of the allocation on priority habitats/habitats of principle importance.

Dartford Borough Council

The site option is identified as 48ha of land at the west side of Dartford Marshes close to the River Darent. The land is salt marsh and is designated as a Local Wildlife Site which is noted in the assessment. However, its designation as Borough Open Space in the Dartford Development Policies Plan, 2017 (DP24) is not. The site lies in a Biodiversity Opportunity Area (DP25), where Dartford's Development Plan policies require particular focus to be given to enhancing biodiversity. Dartford's Core Strategy (CS3) requires that one of the key principles for development at the site is that the Marshes be protected and enhanced as a biodiversity asset and for low key leisure and recreation taking into account this ecological protection.

The site is located within the Green Belt. A Green Belt assessment will be required to fully assess the impact of the proposed allocation. This must assess the extent of potential visual and landscape harms including the historic importance of the landscape and ecology in this location. The site forms the remnants of the historic Thames grazing marshland of the Crayford and Dartford Marshes, spanning the Greater London Borough of Bexley and Dartford Borough. Regard should be given to the important purpose of the Green Belt at this location. It particularly serves to check the unrestricted sprawl of large built-up areas and prevents neighbouring towns merging into one another in keeping with NPPF para 80. The extent of Green Belt in the north of the Borough has previously been much reduced through urbanisation. The Crayford and Dartford Marshes provide the last limited area of separation between London and the North Kent Thames Estuary growth area and prevents their coalescence.

The contiguous nature of the marshes also provides important ecological corridors which should be considered and identified in assessment. Overall it is likely that mitigation of the harms brought about through mineral development will be challenging, impacting on the deliverability of the site.

Under current national policy, the use of land for mineral extraction is not necessarily 'inappropriate' in the Green Belt (NPPF, para 90). However, this is providing that the operation would preserve the openness of the Green Belt and that it does not conflict with its purpose. Dartford Council is strongly of the view that the location, flat landscape and extremely 'open' character (devoid of built development) of this site all indicate that its use would both severely impact on its openness and conflict with the purposes of Green Belt. In these circumstances, it is concluded that use of the land for mineral extraction would be 'inappropriate development'.

Additionally, the nature of potential development required for the mineral extraction operations should be taken into account in the assessment. It is noted in the KMWLP 2014 that '*Processing plant, commonly associated with mineral extraction, is unlikely to preserve openness, owing to its size, height and industrial appearance and therefore would be inappropriate development*'.

Further technical work must include a more refined assessment as to whether '*very special circumstances*' exist, in accordance with NPPF policy, so as to justify inappropriate development in the Green Belt. This should be undertaken in advance of KCC identifying a site as a preferred option for mineral extraction. In the event that '*very special circumstances*' cannot be justified, as Dartford Council contends is the case with this site, the proposal cannot be considered deliverable and should be screened out of the site selection process, due to unacceptable impacts.

Dartford Borough Council - (Environmental Health Officer) raises concerns with the proposed site access via Bob Dunn Way. This access is a heavily trafficked route where nitrogen dioxide pollution levels were recorded at being 46.9 µg/m³ in 2016 (compared to an objective level of 40 µg/m³). The proposed site would result in additional (Joyce Green Quarry would have up to 160 HGV movements) HGV movements per day through an area of poor air quality.

The route along Bob Dunn Way would provide access to the A282 (M25) at junction 1a. This junction is often subjected to congestion as a result of incidents occurring at the Dartford crossing and there is concern that drivers would choose to drive through Dartford Town Centre (through Air Quality Management Areas) to avoid this congestion. There is also concern that noise from the quarrying activities would cause disturbance to residents in Temple Hill.

CPRE – expresses concerns about allocating the site. It is considered that that the Sustainability Appraisal (SA) does not give due consideration to the following and consider that their absence undermines the Summary of Stage 2 RAG Assessment and that this will need to be reassessed in the light of these concerns:

- The site forms part of a Local Wildlife Site (LSW), Biodiversity Opportunity Area and Nature Improvement Area (Dartford Development Policies Plan Figure 7: Indication of Green Space and Links identifies the site as a *'Designated nature conservation and open space area'*). These designations are subject to adopted *Dartford Development Policy DP25: Nature Conservation and Enhancement* which resists development. Developments will be expected to preserve and, wherever possible, enhance existing habitats and ecological quality, including those of water bodies, particularly where located in Biodiversity Opportunity Areas. These designations have been omitted from the SA Scoping Report.
- The SA omits reference to and assessment of the Darent Valley Footpath which runs along the western side of the site on the flood protection banks. The path follows the whole of the western boundary of the site and extraction will, in our view, adversely impact on views from the path changing the view from looking over grazing marsh to open water
- The site was incorrectly assessed as not being in the Green Belt.
- Dartford Marshes are important for Winter bird migration. The Managing the Marshes Vision & Strategy March 2006 states that Dartford Marshes *'act as high tide refuges for birds feeding on adjacent mudflats, as breeding sites for waders, gulls and terns and as a source of food for passerine birds particularly in autumn and winter. In winter, grazed salt marshes are used as feeding grounds by large flocks of wild ducks and geese'*. The SA needs to give due consideration to the impact of gravel extraction on the needs of wintering birds.
- The assessment of soil quality for the site has an Amber RAG Outcome. It is identified as Grade 3 and *"The soil is likely to be impacted by activities at the site, restoration opportunities exist although it is proposed to restore the site to wetland habitat.'* In contrast the assessment of soil quality for Site M10 Moat Farm, again Grade 3, has an Amber-Red RAG Outcome as *"... The proposed restoration is to wetland habitat and therefore the agricultural land would be lost. Opportunities for mitigation / restoration to agricultural land exist.'* Given that it is the intention that the proposed restoration for both sites is to wetland habitat even though restoration opportunities exist site M11 should have the same RAG Outcome, namely Amber-Red.

There are no details of buildings and processing plant that would be required to serve the site. The site lies within the Green Belt and whilst mineral extraction activity is not considered to be inappropriate development associated activities such as processing and restoration may affect *'openness'* and if proposed would need to demonstrate the existence of *'very special circumstances'* as set out in Green Belt policy. It would be helpful to greater understanding of what buildings would be required and where they would be located to help address this matter to enable a fuller SA.

Table 22 of the adopted Minerals and Waste Local Plan states that the site was owned by Hanson (Joyce Green Aggregates) and that whilst it had permission it was inactive at 2015. Some aggregate had been extracted prior to extraction ceasing. The Options consultation indicates that the site is now owned by Ingrebourne Valley Ltd. This indicates that there is uncertainty over the deliverability of the site given the previous owner having ceased operations.

Kent Wildlife Trust –The trust objects to the Option site given that the potential allocation of this site would overlap with a large area of Local Wildlife Site DA04 “Dartford Marshes”. This is a site of County importance for nature conservation and represents direct loss of a large portion of a locally-designated site, which cannot be mitigated for. Kent Wildlife Trust strongly objects to this (potential) allocation and it is not in conformity with current national planning guidance, as presented in the National Planning Policy Framework (NPPF).

RSPB - Allocation of the site will result in direct loss of local wildlife sites and therefore RSPB are supportive of the Kent Wildlife Trust’s representations on this matter.

KCC Advisors

In undertaking this detailed assessment, advice has been sought from a range of technical specialists who advise the County Council on planning matters. This includes advice from on biodiversity, Public Rights of Way, noise, air quality, landscape, heritage, water resources, stability and highway and transportation interests. The views received have informed the assessment and the discussion section below. Several related standalone specialist reports have been prepared and have been published as background documents. The work has also been informed by the Project’s Sustainability Appraisal work.

Views of Elected Representatives

KCC Member – David Butler

Advises that he “raise issues regarding the consultation and any plans to move this forward, and strongly voice my concerns in any form on these sites being used for this purpose.

Dartford North East has the highest traffic volume in the County and is in gridlock on most days due to the Dartford Crossing; for this reason alone it should not be considered a suitable site.

The Joyce Green Lane site backs on to a sports pitch currently under construction and in very close proximity to a housing development. This site off Central Road has recently had a national TNT depot built and I already receive complaints regarding noise, pollution and overall objections.

Dartford North East has had huge construction activity over the last 5 years and will continue to for the year ahead, this will add more noise and more traffic to an already overloaded network, and a further deterioration to local air quality and overall quality of life for residents in Dartford North East and the wider Dartford.

I urge you to take this into careful consideration.

Dartford Borough Council - (Leader Mr Jeremy Kite MBE)

Strongly objects to the potential allocation. There is significant local concern at the intensity of development taking place in the Borough at this time. This is leading to the residents of Dartford experiencing adverse impacts on amenity and quality of life.

The sites identified in the Minerals Sites Plan Options consultation are part of the designated Green Belt and green space in the Dartford Local Plan. The site is closely related to large development sites which are well advanced, which provide much needed relief for the residents in an area of great change and intense development pressure. The existing Joyce Green Quarry is immediately adjacent to the large mixed-use development at The Bridge and the extension area (the M14 option site) is part of the limited remaining undeveloped land which is all that separates Greater London with the North Kent growth area and prevents the convergence of the two.

The open space needs of the local community appear not to have been taken into account, the potential loss of the open space and extraction activity in close proximity of the residential area is inherently unacceptable to the amenity protection of these residents and the wider community of the Borough. Inevitable dust and noise from the extraction would be compounded by pollution from the HGV's transporting materials from the site, in an area which already suffers from heavy congestion and Air Quality Management Area (AQMA) pollution level exceedances.

It is understood that mineral extraction has to take place to meet needs of society, however questions whether it is right that it is proposed within the densest and fastest growing part of Kent, where transport and development pressures are reaching capacity.

It is considered unacceptable that the small district of Dartford should have to be responsible for providing 25% of the required aggregates supply for the county whilst making an extensive contribution to housing delivery. It is not possible for the area to meet these competing and intensely impacting forms of development. The Mineral Sites Plan is being prepared in an uncoordinated manner with regard to the wider planning of the area given current National Planning Policy, however the Mineral Sites Plan cannot be prepared in a vacuum and the wider planning issues must be taken into account in preparing this Plan.

Representations made by members of the public

Concerns raised by local residents during the options consultation included:

- Impact on local amenity and health by way of noise, dust and vibrations
- Impact on flora and fauna
- Marshland is an important habitat
- Impact on landscape and visual amenity
- Impact on archaeology
- Cumulative impact with other major developments in the area
- Industrialisation is contrary to the regeneration of Dartford
- Encroachment of nearby industry
- Lack of restoration of other quarries in the area is blighting the locality
- Highway infrastructure inadequate and impact on road safety
- Site needs to be restored to a high standard
- Contamination of water resources
- Impact on PROWs
- Impact on flood risk
- Will deplete local water resources
- River should be utilised to transport materials
- Impact on property values

2.0 Sustainability Appraisal

In accordance with statutory requirements a sustainability appraisal (SA) has been completed which considers how well the site performs against certain sustainability objectives. The detailed results of the SA are set out in a separate document.

3.0 Discussion

This section addresses matters raised above as well as those identified during the initial site assessment which are key to assessing the suitability of the site for allocation in the Kent Minerals Sites Plan.

Amenity

The promoted site has been assessed against policy DM11 of the KMWLP which requires that mineral development should not generate unacceptable impacts from noise, dust, vibration, odour, emissions, illumination, visual intrusion, traffic or exposure to health risks and associated damage to the qualities of life and wellbeing to communities and the environment. Similar policy protection is provided within the NPPF.

The site lies to the east of the River Darent, with the permitted Joyce Green Farm Quarry operating to the south of the site. The Bridge housing development lies to the south east, at some 300m distance from the permitted Joyce Green Quarry and approximately 450m from the promoted M14 site. The intention is for the processing area to remain on the permitted site. To the west, the closest dwellings are within Slade Green, Bexley at approximately 650m distance from the proposed operational areas and some 1500m from the processing area.

Given the separation of the site from the main residential areas of Dartford and Bexley, extraction and restoration operations at the site would not result in significant adverse impacts of noise or vibration to residential amenity. As extraction would be from marshland the sharp sand/gravel is likely to be wet which would aid dust suppression. Extraction activity could however be constrained by residential receptors to the south east and the AQMAs across the Borough. Normal quarry operation environmental controls would likely be sufficient to contain noise and dust emissions to the wider area and the need for and efficacy of any mitigation could be considered at planning application stage. There is however, concern that the increased HGV traffic on the locality will introduce unacceptable amenity impacts, namely increased traffic congestion and air quality impacts arising from the mineral activity which could create both amenity and health effects.

This potential disturbance to amenity was raised by Dartford BC's Environmental Health Officer (EHO) and the Council's advisors. The Borough Council's EHO draws attention to the impacts on air quality, particularly if the vehicles were to choose to travel through the AQMA to avoid the congestion along Bob Dunn Way. Bob Dunn Way is a heavily trafficked route where nitrogen dioxide pollution levels were recorded at being 46.9 µg/m³ in 2016 (compared to an objective level of 40 µg/m³). The route along Bob Dunn Way provides access to the A282 (M25) at junction 1a. This junction is often subjected to congestion as a result of incidents occurring at the Dartford crossing. There is concern that HGV drivers would choose to drive through Dartford Town Centre (through the AQMA) to avoid this congestion. As a result, the proposed site would result in an additional 160 daily HGV movements through an area of poor air quality. In addition, the promoted site lies in close proximity

to the County boundary with the London Borough of Bexley lying to the west. It is noted that the entire London Borough is designated an Air Quality Management Area and that traffic leaving the site and travelling westwards into Bexley would pass through the Bexley AQMA.

Traffic congestion in the locality often leads to a considerable number of HGV vehicles idling on local roads and in the absence of overriding evidence, the impact upon air quality in this location may not be capable of being adequately addressed.

In respect of impact upon open space, the promoted site forms part of the open space requirements for strategic development that has taken place in the area. Its long-term protection from development is a significant part of the Borough's adopted local plan amenity provisions. The site lies within a Biodiversity Opportunity Area where the focus is given to enhancing biodiversity. Core planning objectives seek to protect and enhance the marshland as a biodiversity asset. Further consideration is given to the implications for biodiversity below, but it is recognised that the site also has an amenity role as open space. This is particularly important as the population and development pressures increase in this part of the county.

Whilst the intention would be to restore the site and recreate the existing ditch habitat, there would be a period of some 10 years of mineral extraction, where the appearance of the landscape would be visually changed. Views of the development would be visible from public vantage points, including the Darent Valley footpath, that runs along the western side of the site. With careful design, which would need to be tested at planning application stage, views of the development are likely to be capable of mitigation, but at the expense of openness.

In conclusion, whilst the promoted site is essentially remote from immediate local residential areas, the associated HGV traffic would result in unacceptable amenity impacts on the locality, an area where there is significant development pressure. Additional HGV traffic would add to this, despite being modest in growth terms; further loading of the local highway network is unlikely to be mitigated. There is also the consideration that the site affords to the wider community an area of relative tranquility accessible by nearby public footpaths. This type of local amenity resource is limited in the Borough and would be disrupted (though not entirely lost) for the life of the development.

The promoted site would give rise to unacceptable impact on air quality and the 'general quality of life' due to increased traffic congestion on Bob Dunn Way. The site would also result in the temporary loss of the open space that is part of the last undeveloped riverside areas of the Borough.

Highways and Transportation

The proposed site has been assessed against policy DM13 of the KMWLP which requires that mineral development satisfy that the access arrangements are not detrimental to road safety, that the highway network is able to accommodate the traffic flows and will not give rise to unacceptable impact on the environment or local community and that emission control and reduction measures are proposed, particularly within an AQMA. Similar policy support is provided for within the NPPF.

The Local Highway Authority (KCC) has considered the capacity of the local roads to accommodate further HGV movements without adverse and unacceptable impact on the local highway network (with particular regard to Bob Dunn Way (A206) and its junction 1A (interchange onto the A282 Dartford Crossing approach). The excavation and restoration activity is anticipated to

be in the order of 116-174 two-way HGV movements per day for the mineral extraction as well as for the revised restoration proposal, which now involves the importation of restoration materials.

The work concluded that the site would result in unacceptable highway impacts in the immediate locality and in particular at junction 1a with the close proximity of the SRN (M25). The Local Highway Authority has stated :

“The potential of the site to exacerbate traffic congestion around the M25/A282 junction 1A is of concern to the County Council. This location is one of the most strategically important yet least resilient parts of the national road network. It is considered by the County Council that even modest traffic increase will have potentially sizeable impacts on traffic conditions, particularly when viewed cumulatively with the other planned development as identified by the Dartford Local Plan for the area. It is the case that the Dartford crossing has been either partially or completely closed, for an average of 300 times per year (for 30 minutes or more). This can cause between 3 to 5 hours for roads to clear following a closure. This can cause blocking back on the northbound approach to the river crossing directly affecting the operation of Junction 1a. Vehicles waiting to travel northbound on the M25/A282 typically queue beyond the end of the slip road and through the western roundabout of Junction 1a. Traffic congestion on the local road network is often a direct consequence of traffic seeking alternative routes to avoid incidents and queuing on the M25/A282 mainline.”

On this basis, the Local Highway Authority raises objection to the promoted site. This conclusion has been reached with knowledge of the promotor’s efforts to demonstrate that the proposals would result in an increase of just 6 HGV trips (12 movements) above current levels in the peak periods . Together with the site’s main market being substantively westwards, towards Greater London, and away from junction 1A on the A206/A282 interchange.

Highway England shares the concern about the resilience of the strategic network in this location and considers that the site would have an impact on M25 Junction 1a, an already congested junction. Any proposal that vastly increased HGV movements associated with the transportation of inert restoration materials is unlikely to be acceptable. Prior to concluding that the site is capable of allocation, further detailed transport evidence would be required setting out the transport implications of the mineral development, and demonstrating that the vehicle movements associated with the extension of the site will not materially affect the safety, reliability and/or operation of the SRN. It is noted that additional details of potential traffic impact have been prepared by the promoter of the site and that Highways England has not provided any further comment.

The promotor had examined the potential use of the River Thames and River Darent for the import and export of material. Lack of commercial navigation of the lower River Darent and the existence of substantial river defences along the River Thames makes any such proposal impracticable.

In conclusion, the site is unacceptable for mineral development given the adverse impact on highway network.

Biodiversity

The proposed site has been assessed against policy DM3 of the KMWLP which requires that proposals do not result in unacceptable adverse impacts on Kent’s important biodiversity assets. This policy was prepared in line with the NPPF which sets out similar criteria.

The site is grazing marsh, a priority habitat and a habitat of principal importance under the Natural Environment and Rural Communities Act. The site contains two priority habitats: coastal floodplain and grazing marsh; and hedgerows . It is noted that the grassland has an affinity with other

grassland priority habitats. The promoted site is also identified as a Local wildlife Site – Dartford Marshes, a Biodiversity Opportunity Area (BOA) and Nature Improvement Area, and forms part of Green Corridor No 12 of Bexley's 14 Designated Strategic Green Corridors River Darent corridor.

It has a number of drainage ditches bisecting the grazing (salt marsh) areas. The drainage ditches have important flora and fauna (including water vole, a Red Book conservation status species). The open grazing areas are also notable in that they *'act as high tide refuges for birds feeding on adjacent mudflats, as breeding sites for waders, gulls and terns and as a source of food for passerine birds particularly in autumn and winter. In winter, grazed salt marshes are used as feeding grounds by large flocks of wild ducks and geese'*. Mineral extraction would have the following impacts on priority habitat:

- partial loss of Coastal and Floodplain Grazing Marsh priority habitat
- indirect impacts to the adjacent Coastal Saltmarsh priority habitat
- indirect impacts to the adjacent Deciduous Woodland priority habitat

All of these biodiversity assets are likely to be significantly negatively affected by the proposed operations and habitats will be lost.

Planning policies require a particular focus on enhancing biodiversity. The original intention was to restore the site to water bodies with wetland edges to provide additional biodiversity and recreational use of part of the site. In response to the detailed technical assessment work, the promotor's of the site have amended its proposal to enable restoration of the site to recover the ecological value of the land. This is proposed to be done with importation of inert materials to allow for re-creation of the grazing saltmarsh as bisected with the drainage ditch array currently present on the site. This, in principle, would be an acceptable way to mitigate losses of important habitat, though there appears to be less overall restored ditch length proposed that currently exists. Species/populations could be significantly affected during this loss and the re-creation of habitat process. Any biodiversity gain is unlikely to be a significant benefit for species affected by the temporary habitat losses and overall disturbance potential prior to eventual restoration. Moreover, the inherent complexities of a programme of ditch restoration and grassing saltmarsh using imported materials of different drainage (hydrological) characteristics, in association with maintaining the flora and fauna diversity currently present are such that deliverability of the restoration is questioned.

Landscape

The proposed site has been assessed against policy DM2 of the KMWLP which aims to ensure that there are no acceptable adverse impacts on important landscapes. This policy was prepared in line with the NPPF which sets out similar criteria. Impacts on visual amenity are assessed against policy DM11 that seeks to ensure that minerals development is unlikely to generate unacceptable adverse impacts from visual intrusion.

The amended proposals to change the final restoration objective from grazing marsh and open lake are to grazing marsh with reinstatement of the pattern and form of the drainage ditches is advantageous in landscape impact terms. It would effectively recover the landscape visually in terms of its character. However, the landscape would experience a temporary degree of disruption during the extraction and restoration phases. The intention to work the site effectively as a later phase to the permitted quarry working to the south, would negate the need for additional plant and processing facilities, thereby reducing the visual impact of the development and urban features in the landscape.

The development of the site would have a significant impact on the priority habitat inventory and local wildlife site designation. Any habitat creation through restoration and careful choice of planting and landscape design would enable the adverse effects caused by the extraction activities to be mitigated.

Whilst, in the longer term, mineral extraction would enable the land to remain open and free of built development, the landscape would be altered throughout the construction and restoration phases, thereby reducing the local value that the local plan strategy has identified.

Historic Environment

The proposed site has been assessed against policy DM5 of the KMWLP which requires that there should be no unacceptable adverse impact on Kent's historic environment taking account of mitigation and compensation and heritage assets be conserved in a manner appropriate to their significance. This policy was prepared in line with the NPPF which sets out similar criteria.

Historic England has been consulted on the proposal to allocate this site for mineral working and it has not raised any specific concerns.

There are no historic buildings or structures that would be directly affected by the proposed development of the site. No impacts are likely to listed buildings. The nearest listed building is a coal marker at approximately 480m. However, the Council's Archaeological Officer considers that there is a lack of site survey evidence to establish the presence of any Palaeolithic and Holocene archaeology at the site. Desk top evidence has been submitted, but further assessment is necessary to inform whether the site is suitable for mineral development and the acceptability of mitigation.

Water Environment

The proposed site has been assessed against policy DM10 of the KMWLP which requires that development should result in no deterioration and improved ecological status of all waterbodies within the site and/or hydrologically connected to the site. This policy was prepared in line with the NPPF.

The site is within Flood Zone 3 (1% or 1 in 100 annual probability of flooding). The Environment Agency made no adverse comments regarding flood risk, acknowledging that sand and gravel extraction represents a "water compatible" development and would not increase the overall flood risk characteristics of the site and the wider area. Further information, detailing how the proposal could impact the integrity of nearby flood defences would be required should the site be allocated.

The site is defended against flood risk, and the proposed mineral extraction operations would not compromise these works given that they are outside the area of mineral extraction and adequate standoffs would be normal to mineral operations such a location . Groundwater would require to be considered against the intended restoration proposals of using inert materials to regain the land levels and re-create the drainage ditch pattern across the site. This would have to be subject to exacting environmental controls as exercised by the Environment Agency's permitting regime under the relevant provision of the Environmental Protection Act 1990. Groundwaters would be protected from pollution by these legislative provisions.

The County Council concludes that the information requested to establish the impact on the water

environment is a matter that could be addressed at planning application stage. In principle, there is no overriding water resource interest that renders the site unsuitable for allocation.

Land Stability

The proposed site has been assessed against policy DM18 of the KMWLP which expects that planning permission for development will not be granted unless it is demonstrated that development will not result in land instability. This policy was prepared in line with the NPPF.

The promoted site is low-lying, and the mineral resource is a superficial Sub-Alluvial River terrace deposit (Taplow Formation) that can be up to 4-5m in depth. The material is proposed to be progressively backfilled with inert restoration materials. The operation would not entail any significant risk to land stability. The adjacent flood defences would require a sufficient standoff to ensure that their geotechnical stability requirements are maintained, this is would be normal operational mineral development procedure.

PROW

The proposed site has been assessed against policy DM14 of the KMWLP which requires that where proposals impact a PROW, they will only be permitted if; satisfactory prior provisions for diversion of the PROW can be made which are convenient and safe for the PROWs users, an acceptable alternative route can be provided during operations and restoration, and opportunities to improve countryside access are taken wherever possible. This policy was prepared in line with the NPPF which sets out similar criteria.

Footpaths run along the site boundary to the west, east and southwest of the site, including the Darent Valley Path, the London Loop and the Thames Path, promoted as recreational paths. The Darent Valley Footpath runs along the top of the flood embankment to the west of the site. Users of these paths will see the site across the large open landscape. Screening will be provided but the site will still be visible from the path on the embankment, although the proposed development will not divert the paths. Users of roads in the vicinity may have glimpsed or distant views of the site and residents in Oaks Road to the west may see the site from upper windows.

Mitigation should be provided in the form of retained and enhanced vegetation and bunds which will minimise most impacts, although not for users of the path along the raised earth banks which could potentially be significant and adverse impacts for those users. Proposed mitigation measures and their effectiveness are a matter that can be considered at planning application stage.

Footpath DB1 and bridleway DB2 (to the west and east of the site essentially being coincident with but not on the promoted site boundaries) would not be directly affected by the proposals. However, they may require a degree of maintenance (to facilitate use of the paths adjacent to mineral workings).

KCC PROW officers have made no adverse comments on the proposal, and as such the County Council concludes that the impact on PROW's does not constitute a reason for not allocating the site.

Soil Quality

The proposed site has been assessed against policy DM1 of the KMWLP which requires that proposals demonstrate that there is no unacceptable adverse impact on the use of other land for other purposes possible. This policy was prepared in line with the NPPF.

Natural England's Agricultural Land Classification Map states that the site comprise grade 3 agricultural soil. The site is however in use as marshland and as considered above has an important open space function to support urban growth within the Dartford area. It is unlikely to be used for agricultural purposes given its biodiversity interest above.

The County Council concludes that the impact on soil quality does not constitute a reason for not allocating the site

Cumulative Impact

The proposed site has been assessed against policy DM12 of the KMWLP which expects that mineral development should not result in an unacceptable adverse, cumulative impact on the environment or communities. This policy was prepared in line with the NPPF which sets out similar criteria.

It is recognised that mineral working has taken place in the surrounding area of the Darent Valley in the past, with particular regard to the ongoing quarrying operation at Joyce Green Quarry, immediately to the south of the promoted site. The KMWLP notes that cumulative impacts may occur where separate developments occur near to each other and there is a need for such impacts to be taken into account. In this instance, the assessment of potential cumulative impacts which could arise from development in this location relate to the impacts from HGV movements and the consequential impact on air quality. From the evidence available these would give rise to unacceptable cumulative impact.

Need for the Mineral

The proposed site has been assessed against policy CSM2 that sets out the requirements for the supply of sharp sand and gravel. This policy was prepared in line with NPPF.

Calculations regarding supply and demand based on 2017 data, taken together with an 18-year landbank, suggest the shortfall is now in the order of 5.75mt for sharp sand and gravel¹². The yield from this site is estimated to be 1.5m tonnes which would make a significant contribution to supply requirements.

The British Geological Survey states that the geology of the site is as follows:

“River terrace deposits of the middle and lower Thames contain gravel clasts mainly composed of flint, vein quartz and local bedrock lithologies including chert. Modern British Geological Survey maps also show the terrace deposits as named units which are here interpreted as members of the Maidenhead Formation. The main terrace deposit members are the Black Park Gravel, Boyn Hill Gravel, Lynch Hill Gravel, Hackney Gravel, Taplow Gravel, Kempton Park Gravel, Shepperton Gravel and Staines Alluvium. Brickearth silt beds include the Enfield Silt, Roding Silt, Langley Silt, Dartford Silt, Crayford Silt and Ilford Silt.”

The deposit of the site is part of the lower Thames Taplow Formation. A main terrace of flint gravel that represents a relatively thick layer of predominantly 'flint' sands and gravels that are considered as being of high quality for such applications as structural concrete manufacture.

Whilst it is recognised that there is a need to allocate the site on national planning policy grounds in respect of mineral need, the adopted KMWLP Policy CSM2 makes it clear that the requirement will be planned for “... while resources allow”. It therefore follows, that if the site is unacceptable in

¹² See Sharp Sand Topic Paper

principle and cannot be allocated, the adopted policy recognises that demand will be met from other sources. These are principally a combination of recycled and secondary aggregates, landings of MDA (marine dredged aggregate), blended materials and imports of crushed rock through wharves and railheads. The actual proportions will be decided by the market.

Green Belt

The proposed site has been assessed against policy DM4 of the KMWLP which states that development within the Green Belt will be considered in light of its potential impacts and shall comply with national policy and the NPPF policy on Green Belt.

The site is within the Metropolitan Green Belt. Whilst mineral extraction does not inherently constitute '*inappropriate development*' within the Green Belt (see NPPF Section 146), the proposal has to be considered against other mineral extraction and restoration elements such as the need for plant/processing equipment, infilling of land with waste materials (including inert materials) and screening measures (such as bunds and fencing). As these activities can have an impact on the 'openness' of the Green Belt, and/or cause 'harm' to the Green Belt (see section 144 of the NPPF).

The proposals would not involve the need to establish new plant to process the extracted materials given that the existing permitted plant site to the south of the Option site would naturally be utilised for the processing of the materials (washing, grading and stockpiling of the flint sands and gravels). Nor would there be a need for substantive site screening bund structures given that the extraction site is remote to immediate local residential receptors. Therefore, it is considered that the development of the site for mineral extraction and restoration would not have a detrimental impact on the need to preserve the openness of the Green Belt.

With regard to the restoration operations, it is clear in the NPPF that this element of the proposal is not identified amongst the list [a) to f) Section 146] of forms of development that are not inappropriate in the Green Belt. It therefore follows that any infilling operations (as proposed for restoration purposes) are '*inappropriate development*'. In light of this it is necessary to consider whether '*very special circumstances*' (see section 144 of the NPPF) exist.

The Green Belt considerations are complex, with the mineral extraction element being recognised as an acceptable form of development, provided 'openness' is not compromised. It could be concluded that as there is a lack of any requirements for screening bunds or plant and machinery on the land the site is acceptable against national Green Belt policy.

However, infilling the land to re-establish the ecologically valuable habitats, that would be otherwise threatened with loss, is not regarded as acceptable as 'appropriate' development by the NPPF. Very special circumstances have to be advanced that demonstrate how the need for the proposal can outweigh the '*inappropriateness*' of what is being proposed and '*harm*' to the Green Belt that would result. It is considered that infilling the site and the '*harm*' to the Green Belt (that can be attributed to such impacts as disturbance and impact to the amenity of the area) are not outweighed by the need for the mineral. Although of recognised high quality (Taplow Formation), the need to maintain landbanks of landwon minerals of this type are to be attempted for as long as "...resources allow" (see Policy CSM 2 page 47 of the adopted Kent Minerals and Waste Local Plan 2013-30). Alternative high-quality aggregate mineral supply is available from nearby wharf importation in the Dartford and Gravesham areas.

Therefore, the estimated shortfall (5.75 mt) in the permitted reserves landbank is not in itself sufficient to override Green Belt policy to allow allocation of the site, release of the resources it contains and allow for the '*inappropriate*' restoration and other 'harm' it would inevitably incur over the life of the development. Very special circumstances in this regard have not been demonstrated. Therefore, the allocation of this site would not be in accordance with the NPPF (see section 13 Protecting Green Belt land) and Policy DM 4 Green Belt of the Kent Minerals and Waste Local Plan 2013-30.

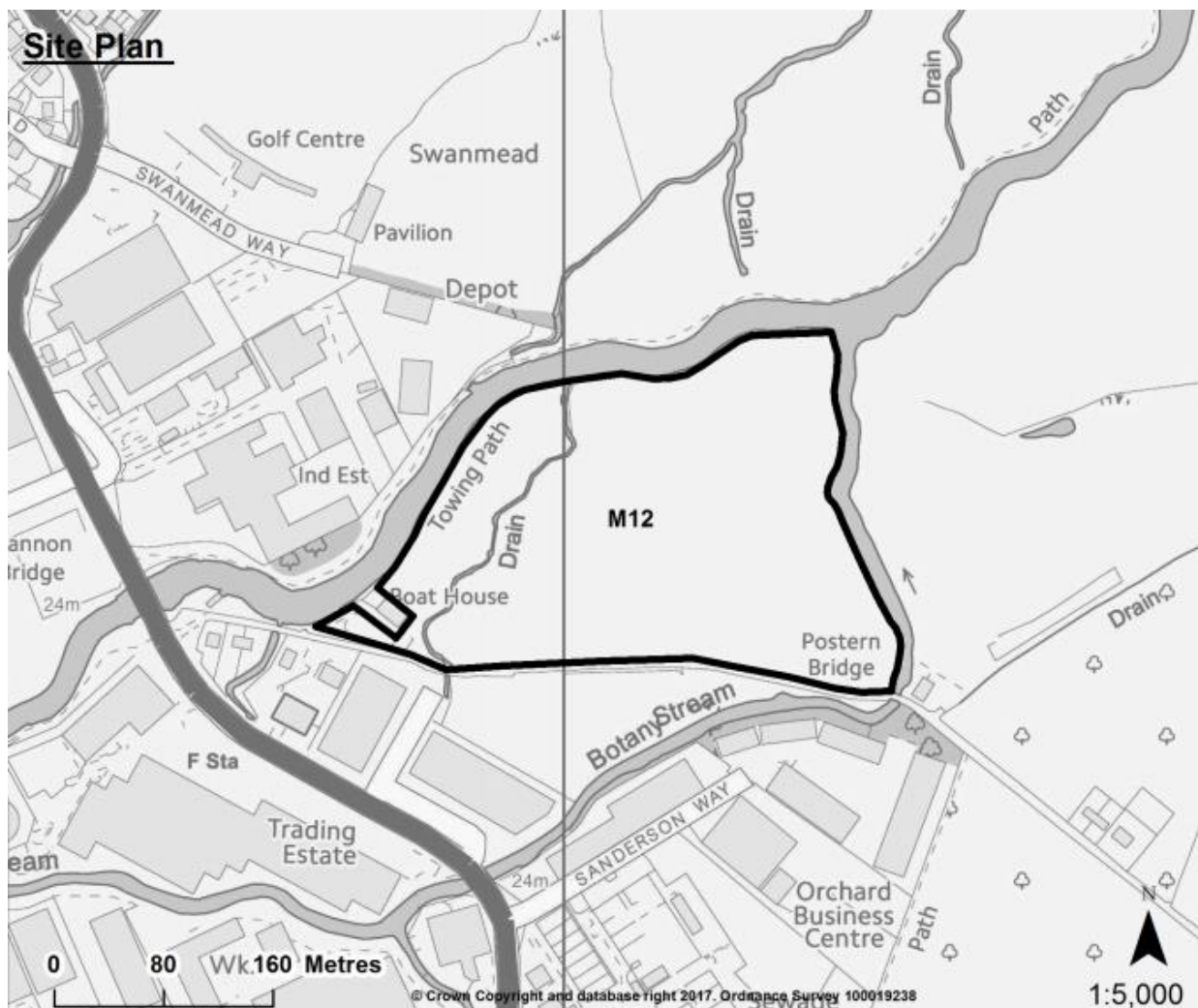
4.0 Conclusion - M11: Joyce Green Farm Quarry Extension, Dartford

In conclusion, whilst some matters are capable of being addressed in detail at the planning application stage, the County Council considers that the M11 Joyce Green site gives rise to unacceptable impacts on a number of key matters. In particular, these relate to highway impacts on Bob Dunn Way (A206) and the M25 Junction 1a (Dartford Crossing), loss of biodiversity habitat, impact upon Local Wildlife Sites (LWS) and UK Biodiversity Action Plan (BAP) interests, the appropriateness of the restoration proposals, impacts on air quality impact and the AQMAs and conflict with Local Plan open space objectives. The proposal is also considered contrary to Green Belt policy, being inappropriate development for which no very special circumstances have been demonstrated.

The County Council is therefore unable to conclude that the site is acceptable for allocation. The site is not identified as a site in the Pre-Submission draft of the Mineral Sites Plan.

M12: Postern Meadows, Tonbridge - Sharp Sand and Gravels

Site Location Plan



1.0 Matters addressed by Detailed Technical Assessment

Matters Identified by the Initial Site Assessment

As set out in section 3 of this report, the initial assessment of the site identified a number of matters which would require particular consideration, these were:

- Impact on landscape
- Impact on biodiversity
- Impact on the historic environment
- Impact on the water environment
- Loss of grade 3 agricultural soil
- Impact on Public Rights of Way (PROWs) and their setting
- Impact on the highway network
- Impact on health and amenity

- Cumulative impact with other development in the area such as the industrial estate to the south
- Site is within the Green Belt

Matters Raised during the Options Consultation

The matters raised during the public consultation on this site are summarised below.

Views of key organisations

A summary of the responses from key organisations, including statutory consultees, is set out below which sets out the nature and extent of the concerns of such consultees especially with regard to the matters listed above.

Environment Agency (EA) – Object due to the lack of information on how ecology of the River Medway and Botany stream will be impacted. As a minimum, measures must be taken during operation to ensure that the water quality is not affected in such a way to impact the Sewer. The implementation of a water quality monitoring programme may be appropriate.

The site overlies a gravel aquifer and is near to an SPZ3. The business park to the south is also underlain by a historic landfill. Appropriate risk assessments would need to be carried out to ascertain that any possible changes in water flow caused by quarrying would not cause impacts on controlled waters from the change in flow paths and changes to leaching from the fill materials. Relevant constraints would be imposed on a specific application for restrictions on depth of excavations, pollution control methods and ways of working to safeguard against aquifer disturbance or impacts on water quality.

So long as the final restoration plan recognises the need to ensure that the Botany Stream's function is retained, the proposal poses no immediate risk to Water Resources. Furthermore, the following uncertainties will need to be addressed, substantiated through a detailed programme of monitoring where necessary:

- In due course, it will be required to confirm the design of the restoration plan and in particular with reference to the landscapes interface with the adjoining river Medway. The site is underlain by Weald Clay Formation and there is some uncertainty as to how sustainable this restoration plan is independently from the River Medway so as to effectively augment levels. In principal we are against proposals that would result in further unconstrained demand being placed on the River Medway's flow, and especially during those scenarios when the regime would be stressed and incapable of supporting what would amount to an additional abstraction.
- A small part of the site is potentially underlain with Tunbridge Wells Sand Formation and as a consequence the extent of the outcrop and the relative position of the geological boundary with the Weald Clay Formation will need to be proven site investigation. Furthermore, it will need to be demonstrated that removing the alluvium will not pose a risk to the underlying Tunbridge Wells Sand Formation, which is a principal aquifer unit.

Furthermore, it should be noted that as of the 1st January 2018, in accordance with the Water Act 2003, dewatering is a regulated activity. A licence should be sought from the Environment agency should there be a requirement to dewater the site.

Natural England – The proposed allocation is in close proximity to the High Weald Area of Outstanding Natural Beauty (AONB) and the proposal should be assessed carefully to determine whether the development would cause significant impact or harm. The AONB unit should be consulted and their views should be taken into consideration.

The site includes areas of priority habitat, the allocation is likely to:

- Result in a partial loss of Traditional Orchard priority habitat
- Have indirect impacts to Deciduous Woodland priority habitat.

Further assessment should be undertaken on the implications of the allocation on priority habitats/habitats of principle importance.

The proposal is likely to have an indirect impact to Ancient Woodland, further clarity on how these impacts will be avoided and fully mitigated should be provided as part of the site allocation process.

Tunbridge Wells Borough Council (TWBC) – Development of the site should only take place where there is no unacceptable adverse impact on health or amenity and appropriate mitigation should be implemented to minimise the impact. It should be the baseline that all mitigation which is reasonably practical should be implemented to protect residents.

In terms of both the existing situation, and potential growth, TWBC wishes to ensure that the further technical assessments are robust, thorough and have particular regard to the following, both in terms of the impact of individual sites and in terms of cumulative impact:

- Transport links, including highway safety and the operation of the highway network.
- Residential amenity, including in terms of impact via noise, dust, vehicle movements, air quality, vibration, etc.;
- Landscape impacts, including the setting of the Area of Outstanding Natural Beauty;
- Heritage: there are areas of potential archaeological importance within the vicinity of the allocations, as well as a number of Listed Buildings (some of which form part of historic farmsteads), the settings to which are important;
- Impact on the high-pressure gas pipeline;
- Ecology, including Local Wildlife Sites;
- Trees, including areas of Ancient Woodland;
- Flooding, both in terms of surface water and groundwater;
- Pollution, including in terms of the aquifer protection zone;
- Impact on the Green Belt, particularly having regard to the potential growth through the new TWBC Local Plan.

Southern Water – There is existing sewerage infrastructure crossing the site. This is not considered to be a fundamental constraint provided that appropriate provisions are made in the wording of any policy. The infrastructure must be protected, however diversion may be possible at the operator's expense, provided a feasible alternative route is available.

British Horse Society – The proposed location of this quarrying site borders Postern Lane, which is currently a public footpath and there is historical evidence that it was once a road connecting the Shipbourne Road (B2260) with Tudely Rd (B2017). This road should be preserved and available for all non-motorised users (NMUs). Whilst it is unlikely to be used by equestrians, if it could be upgraded to bridleway status, it would provide a useful link for cyclists.

Further to these requests in mitigation for the impact on local equestrians, after quarrying has finished reinstatement should make good use of the opportunity to provide new rights of way/road side margins and/or enhance the existing routes to provide access to all NMUs.

CPRE – Part of the northern edge and all of the eastern edge of the site lie within an area subject to adopted Tonbridge and Malling Managing Development and the Environment Development Plan Document Policy NE1 Local Sites of Wildlife, Geological and Geomorphological Interest.

There are no details of any buildings and processing plant associated with the operation of the site. The site is within the Green Belt and whilst mineral extraction is not considered to be inappropriate development, associated activities such as processing and restoration may affect the 'openness' and would need to demonstrate that 'very special circumstances' exist.

Kent Wildlife Trust – The site overlaps with Local Wildlife Site TM20 "East Tonbridge Copses and Dykes River Medway". This is a site of County importance for nature conservation. Kent Wildlife Trust object to the allocation until it can be shown that there will be no negative impact upon the designated site.

RSPB – The site will result in the direct loss of local wildlife sites and therefore share the Kent Wildlife Trust's objection to the allocation of the site.

Forestry Commission – Site assessment has identified:

- Ancient Woodland within 300m of the site
- Deciduous woodland within 500m of the site

As such, advice must be sought from the Government's Policy Statement on Forestry and Woodlands (2013), the NPPF and the NPPG.

KCC Advisors

In undertaking this detailed assessment, advice has been sought from a range of technical specialists who advise the County Council on planning matters. This includes advice on biodiversity, Public Rights of Way, noise, air quality, landscape, heritage, water resources, stability and highway and transportation interests. The views received have informed the assessment and the discussion section below. Several related standalone specialist reports have been prepared and have been published as background documents. The work has also been informed by the Project's Sustainability Appraisal work.

Views of local residents

Concerns raised by local residents during the options consultation included:

- Impact on local amenity by way of noise, dust and vibrations
- Impact on Ancient Woodland
- Impact on flora and fauna
- Impact on landscape and visual amenity
- Impact on public health
- Water supply pipeline crosses the site
- Impact on heritage assets - listed buildings and archaeology
- Extensive quarrying in the area historically
- Encroachment of nearby industry

- Lack of restoration of other quarries in the area is blighting the locality
- Impact on agricultural productivity, including the loss of grade 3 agricultural soil
- Located within the Green Belt
- Impact on High Weald AONB
- Highway infrastructure inadequate - surrounding roads are already damaged
- Impact on road safety
- Mineral is not of a good quality and has limited use in industry
- Lack of faith in operators nearby; sites have been abandoned or not restored properly. Lack of restoration causes safety concerns.
- Contamination of water resources
- Impact on PROWs such as the Medway Valley Walk
- Impact on flood risk
- Will deplete local water resources

2.0 Sustainability Appraisal

In accordance with statutory requirements a sustainability appraisal (SA) has been completed which considers how well the site performs against certain sustainability objectives. The detailed results of the SA are set out in a separate document.

3.0 Discussion

This section addresses matters raised above as well as those identified during the initial site assessment which are key to assessing the suitability of the site for allocation in the Kent Minerals Sites Plan.

Amenity

The promoted site has been assessed against policy DM11 of the KMWLP which requires that mineral development should not generate unacceptable impacts from noise, dust, vibration, odour, emissions, illumination, visual intrusion, traffic or exposure to health risks and associated damage to the qualities of life and wellbeing to communities and the environment. Similar policy protection is provided within the NPPF.

There are a number of residential properties within 50m of the site, the closest are within 10m. These sit along Postern Lane to the south-east and south-west corners of the site. There is a risk of impacts due to vehicle emissions, but the potential for impacts due to dust is greater due to the proximity of properties to the site boundary. However, it is considered that mitigation may be possible. Tonbridge High Street would need to be avoided by vehicles accessing the site as it is an Air Quality Management Area (AQMA).

Residential receptors which could be affected by noise are located to the south of the site. The level of mitigation which would be required for this may have secondary implications with regards to landscape and visual amenity (such as bunding) or impact upon the openness of the site which would be inappropriate within the Green Belt.

In light of the proximity of residential properties to the site and lack of information concerning mitigation measures it is not possible to conclude with certainty that it would be possible to reduce

impacts to acceptable levels.

Consideration of impacts on visual amenity is set out below.

Highways and Transportation

The proposed site has been assessed against policy DM13 of the KMWLP which requires that minerals development satisfy that the access arrangements are not detrimental to road safety, that the highway network is able to accommodate the traffic flows and will not give rise to unacceptable impact on the environment or local community and that emission control and reduction measures are proposed, particularly within an AQMA. Similar policy protection is provided for within the NPPF.

Access to the site would cross Postern Lane, before being sought through "Postern Industrial Estate" and meeting the A26. The site is on the outskirts of Tonbridge town, so traffic levels are already fairly high in the area.

The junction with Vale Road is a simple priority junction and scope for improvements is limited due to the river bridge immediately to the north of the site access. Vale Road and the adjoining highway network is already congested at peak times and therefore any significant intensification would need to be avoided.

There is concern over the capacity of the local highway network, and the suitability of HGVs crossing Postern Lane on a regular basis, as it constitutes a country road which is unsuitable for quarry traffic. Any alternative access would require travelling further along Postern Road, which would not be appropriate.

No information has been submitted to assess the impact of the site on the highway network, or demonstrate the suitability of such an access and so it is not possible to conclude that, in principle, the site would be acceptable with regard to highways impacts.

Landscape and Visual Amenity

The proposed site has been assessed against policy DM2 of the KMWLP which aims to ensure that there are no acceptable adverse impacts on important landscapes, including the Kent Downs AONB, and sets out the circumstances where impacts upon them would be acceptable. Policy DM2 notes that proposals outside, but within the setting of an AONB will be considered having regard to the effect on the purpose of conserving and enhancing the natural beauty of the AONB. This policy was prepared in line with the NPPF which sets out similar criteria. Impacts on visual amenity are assessed against policy DM11 that seeks to ensure that minerals development is unlikely to generate unacceptable adverse impacts from visual intrusion.

The site is approximately 1km away from the High Weald AONB. Given the low lying nature of the site and the abundant vegetation in the surrounding area, it is not considered that the site will have any impact on the setting of the AONB.

Assessment of landscape impacts concludes that these would be limited due to the fairly well enclosed nature of site which is due to vegetation. However, the properties on Postern Lane, and the PROWs, have clear views onto the site therefore significant adverse visual effects may result. Additionally, localised but significant adverse impacts upon the landscape may arise from the increased industrialisation within the Medway Valley at this edge of Tonbridge. Considerable

attention would need to be given to appropriate and effective mitigation measures.

Additional screen planting could provide suitable mitigation depending on the details to be submitted with any planning application. There could be a minor loss of existing trees and vegetation adjacent to an existing open drain transecting the site. Additional native planting would likely enhance the existing River Medway habitat whilst also providing additional screening during proposed extraction activities and address views across the site from the Medway Valley walk.

The site is to be restored to a landscaped lake but there are no other details. Whilst open water is acceptable, the creation of wetland, wetland scrub and marginal habitats would be favourable to increase the opportunity for further biodiversity. This would be enhanced by differing scrub and woodland mixes linking to the existing boundary habitats.

Overall the County Council considers that subject to certain matters being satisfactorily addressed at the planning application stage, the site is acceptable in principle on landscape grounds. There is less certainty that site could be made acceptable in terms of impacts on visual amenity as significant mitigation would be required.

Biodiversity

The proposed site has been assessed against policy DM3 of the KMWLP which requires that proposals do not result in unacceptable adverse impacts on Kent's important biodiversity assets and SSSIs. This policy was prepared in line with the NPPF which sets out similar criteria.

The site is adjacent to East Tonbridge copses and dykes and River Medway Local Wildlife Site (LWS), and the site is surrounded by mature trees and hedgerows, with the River Medway and Botany Stream running along the northern and eastern boundaries.

An area of Ancient Woodland exists within 250m to the east of the site.

It is considered that the proposal must avoid any impact on the LWS designation, and that there will be a need for ecological surveys to be carried out as part of any planning application and the restoration scheme must demonstrate that the restored site would provide ecological enhancements and enhance the habitat adjacent to the LWS.

Due to a lack of information concerning the extent of the activity at the site it is not certain that impacts on the LWS and the Ancient Woodland could be mitigated, therefore it is not possible to conclude that the site is acceptable in terms of impact on biodiversity at this stage.

Historic Environment

The proposed site has been assessed against policy DM5 of the KMWLP which requires that there should be no unacceptable adverse impact on Kent's historic environment taking account of mitigation and compensation and heritage assets be conserved in a manner appropriate to their significance. This policy was prepared in line with the NPPF which sets out similar criteria.

The closest designated heritage asset is the grade II listed building; Postern Heath Farmhouse, which is some 200m away from the site. The proposed access route will not pass this building and while there may be some indirect impacts on its setting it is considered that these could most likely be dealt with through appropriate mitigation.

There are no known archaeological remains within the site or in close proximity but it is considered

that deposits within the site do have potential for early prehistoric remains. Cultural Heritage would need to be addressed through a multi-phased programme both desk-based and field work, with mitigation fully informed and appropriate to the significance of the heritage assets affected. This would need to include palaeo-environmental and geoarchaeological assessment as well as regular broad ranged heritage assessment.-It is considered that potential impacts on features of archaeological interest could be addressed by appropriate monitoring and mitigation at the planning application stage.

It is considered that the potential impact of the site on the historic environment is not a matter that would preclude the site from allocation.

Need for the mineral

The proposed site has been assessed against policy CSM2 that sets out the requirements for the supply of sharp sand and gravel. This policy was prepared in line with NPPF.

The deposit in this location constitutes river terrace sand and gravels.

Calculations regarding supply and demand based on 2017 data, taken together with an 18-year landbank, suggest the shortfall is now in the order of 5.75mt for sharp sand and gravel¹³. The yield from this site is estimated to be 230,000 tonnes which would make a modest contribution to supply requirements.

British Geological Survey data indicates that terrace sands and gravel is an economic mineral. The actual economic viability of any one particular deposit largely depends on the local economy and specification for quarried materials supply. While the material may not currently have significant market demand, workings have occurred in the past in the locality and thus the economic viability of the deposit may improve, particularly as other land-won resources are increasingly depleted.

Green Belt

The proposed site has been assessed against policy DM4 of the KMWLP which states that development within the Green Belt will be considered in light of its potential impacts and shall comply with national policy and the NPPF policy on Green Belt.

The site is within the Metropolitan Green Belt. Mineral extraction is not considered on its own to be inappropriate development, however structures such as bunds, plant and machinery which may impact of the openness of the Green Belt can be considered to be inappropriate development.

As noted above, mitigation of visual impacts on nearby receptors may require development, such as bunding, that is likely to be considered inappropriate within Green Belt as would processing equipment and on site offices.

Therefore, a case of Very Special Circumstances would need to be demonstrated whereby other considerations were shown to outweigh the harm to the Green Belt and any other harm. There is no certainty that such a case could be demonstrated.

Water Environment

The proposed site has been assessed against policy DM10 of the KMWLP which requires that development should result in no deterioration and improved ecological status of all waterbodies

¹³ See Sharp Sand and Gravels Topic Paper 2018

within the site and/or hydrologically connected to the site. This policy was prepared in line with the NPPF.

The site is within Flood Zone 3 which has the highest probability of flooding. It also overlies an aquifer and it near to a SPZ.

KCC's Flood Risk Assessment concluded the following:

- The main potential source of flooding is from the River Medway and its tributaries.
- There is potential for a high water table at the site, resulting in a potential requirement for dewatering.
- As the development involves extraction of minerals as opposed to raising the ground level, it will not result in a loss of water storage for the flood plain. The resulting waterbodies could provide water storage and reduce flood risk off site.
- Further hydraulic modelling would be needed to establish the impact of the site on the watercourses, including the watercourse running through the site.

The underlying Tunbridge Wells Sand Formation is a principal aquifer unit and therefore any planning application would need to demonstrate that removal of the alluvium will not pose a risk to the aquifer.

In principle the EA are satisfied that the risk of impacts to water resources posed by this site is not a concern – any planning application would require appropriate investigation and modelling to be carried out to confirm the position.

It is considered that the potential impact of the site on the water environment is not a matter that would preclude the site from allocation.

Land Stability

The proposed site has been assessed against policy DM18 of the KMWLP which expects that planning permission for development will not be granted unless it is demonstrated that development will not result in land instability. This policy was prepared in line with the NPPF.

The County Council's land stability report¹⁴ concludes that the proposed operations will have a minimal risk in terms of land stability. There are very few sensitive receptors adjacent to the site with the exception of the banks of the River Medway. This can be mitigated by allowing appropriate standoff distance to ensure that the banks are not breached.

Soil Quality

The proposed site has been assessed against policy DM1 of the KMWLP which requires that proposals demonstrate that there is no unacceptable adverse impact on the use of other land for other purposes possible. This policy was prepared in line with the NPPF.

Natural England's Agricultural Land Classification Map states that the site contains Grade 3b Postern Meadows comprises grade 3b agricultural soil which is considered to be moderate soil which has limitations on the range of crops it can yield. Furthermore, due to the limited size of the site it is not considered that development in this location would lead to a significant loss of agricultural soils.

¹⁴ KCC (amey) Land Stability Assessment Technical Report August 2018

PROW

The proposed site has been assessed against policy DM14 of the KMWLP which requires that where proposals impact a PROW, they will only be permitted if; satisfactory prior provisions for diversion of the PROW can be made which are convenient and safe for the PROWs users, an acceptable alternative route can be provided during operations and restoration, and opportunities to improve countryside access are taken wherever possible. This policy was prepared in line with the NPPF which sets out similar criteria.

PROW MU32 (Medway Valley Walk) runs to the north of the site on the other side of the River Medway. The views from this PROW will be impacted as it currently looks out onto the open pasture.

The south of the site is bounded by PROW MU33. The site access will intersect this PROW and it is not clear whether diversion will be possible.

Based on the information available, it is not possible to conclude whether the site will be acceptable in terms of impacts on PROWs at this stage.

Cumulative Impact

The proposed site has been assessed against policy DM12 of the KMWLP which expects that mineral development should not result in an unacceptable adverse, cumulative impact on the environment or communities. This policy was prepared in line with the NPPF which sets out similar criteria.

The KMWLP notes that cumulative impacts may occur where separate developments occur near to each other and there is a need for such impacts to be taken into account. The assessment of potential impacts which could arise from mineral development in this location is not sufficiently conclusive to establish whether unacceptable cumulative impacts would arise. In any event cumulative impacts would require further consideration if a proposal were to come forward.

4.0 Conclusion - M12: Postern Meadows, Tonbridge

It has not been possible to conclude that impacts on the following matters due to minerals development in this location could be mitigated to levels that would be acceptable:

- Biodiversity
- Highways and transportation
- Landscape
- Amenity
- PROWs

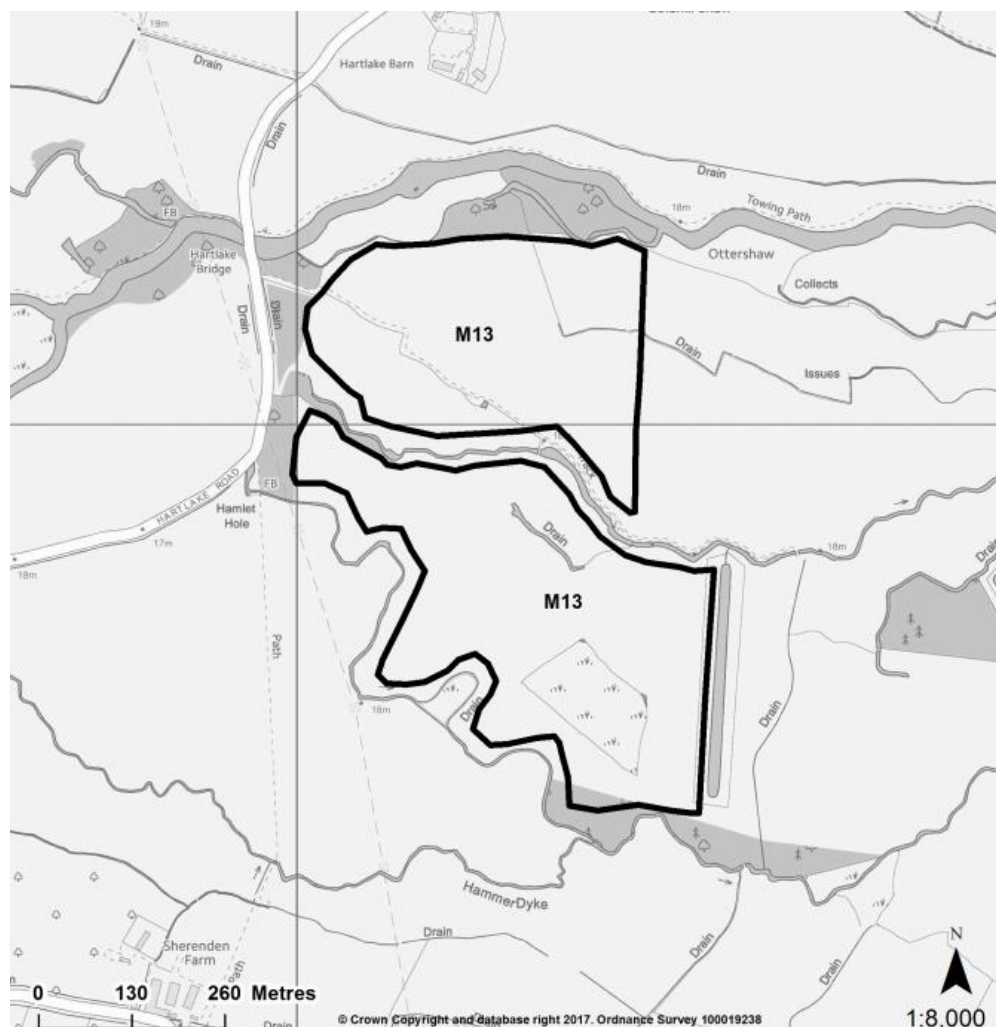
There is also insufficient information to conclude that mineral development in this location would not be in conflict with policy on Green Belt.

In the absence of information to demonstrate that the site will not adversely impact the above areas, it is not possible to conclude that the Postern Meadows site (M12) constitutes acceptable development in principle. Therefore, the site should not be allocated.

The M12 site is not identified as a site in the Pre-Submission draft of the Mineral Sites Plan.

M13: Stonecastle Farm Quarry Extensions, Hadlow/Whested - Sharp Sand and Gravels

Site Location Plan



1.0 Matters addressed by Detailed Technical Assessment

Matters Identified by the Initial Site Assessment

As set out in section 3 of this report, the initial assessment of the site identified a number of matters which would require particular consideration, these were:

- Impact on landscape
- Impact on biodiversity
- Impact on the historic environment
- Impact on the water environment
- Loss of grade 3 agricultural soil
- Impact on PROWs and their setting
- Impact on services and utilities
- Impact on health and amenity

- Cumulative impact with other development in the area such as the industrial estate to the south
- Site is within the Green Belt

Matters Raised during the Options Consultation

The matters raised during the public consultation on this site are summarised below.

Views of key organisations

A summary of the responses from key organisations, including statutory consultees, is set out below which sets out the nature and extent of the concerns of such consultees especially with regard to the matters listed above.

Environment Agency (EA) – No objection to the allocation in principle.

In terms of groundwater, the site is an important setting for local water supply and further major extensions to the quarry may impact water supply options further investigation is therefore required.

The site poses a moderate water resource risk. It is anticipated that appropriate mitigation measures, substantiated through a detailed programme of monitoring, will be necessary.

The design of the restoration plan and in particular with reference to the proposed lakes and their interface with the adjoining River Medway, the Hammer Dyke and associated drains would need agreement with the EA. The site is underlain by Weald Clay Formation and there is some uncertainty as to how sustainable the restoration plan is, independent of a feed from any one of the watercourses that will bound the lakes, once the mineral has been extracted. The restoration plan will need to include evidence demonstrating how the integrity of those watercourses sited on the curtilage of the workings will be retained.

Two Abstraction Licences are sited within the vicinity of the proposed workings at Stonecastle Farm. Both Licence 9/40/03/0215/SR [Sherenden Farm, Tudley] and Licence 9/40/03/0474/G [South East Water, Hartlake] will need to be accounted for in terms of the operation phase and the subsequent restoration. The assessment will be required to determine whether the Stonecastle Farm option poses a risk of derogation to the licensees' regulated activities. South East Water will need to be consulted with, the proposal raising potential questions as to the longer-term viability of the superficial aquifer at Hartlake, from where the Company abstracts.

A licence should be sought from the Environment Agency should there be a requirement to dewater the site.

The site is within Flood Zone 3 and a precautionary approach should be applied, avoiding flood risk wherever possible. Any application must be accompanied by a detailed flood risk assessment.

No comments on biodiversity, however there are records of Nuttall's pondweed and Crassula in the area. Considered that the developer should accept responsibility for and contribute to the management of the species as part of the works.

South East Water – Working the site wet [as proposed] removes the requirement for dewatering and reduces the risk of impinging on groundwater levels at the abstraction, which previously gave concern over impacts on local water supply.

The hydrogeological appraisal of the site sets out the potential impacts on the aquifer and the abstraction along with proposed mitigation. This should be formalised through the planning process in consultation with SE Water.

Some concerns over the potential for increased turbidity and the increased vulnerability due to removal of the confining overburden. The site includes areas designated as Drinking Water Safeguard Zones for both surface water and groundwater, and there are existing problems with diffuse pollution within the catchment. The risks of pollutants entering the restored open lakes should therefore be considered.

A requirement for a Hydrometric Monitoring Strategy is supported. Monitoring at the existing locations should continue to allow an extension of the baseline data and be appropriate for the potential risks identified. The results of the monitoring should be regularly reviewed, and the conceptual model of the site updated as required. The future hydrometric monitoring requirements at the site should be agreed between the operator, the Environment Agency, Kent County Council and South East Water before any works on the site begin.

Any applicant carrying out activities within a groundwater source protection zone should follow and comply with the Environment Agency's approach to the management and protection of groundwater as outlined within their Groundwater Protection Position Statements and take all measures and precautions necessary to avoid deterioration in the quality of groundwater below the site.

Natural England – The proposed allocation is in close proximity to the High Weald AONB and the proposal should be assessed carefully to determine whether the development would cause significant impact or harm. Views of AONB unit should be taken into consideration.

The site includes areas of priority habitat, and the development will result in:

- Loss of Deciduous Woodland Priority Habitat
- An indirect impact on adjacent areas of Deciduous Woodland Priority Habitat.

Further assessment should be undertaken on the implications of the allocation on priority habitats/habitats of principle importance.

Tonbridge and Malling Borough Council

Cumulative impacts of several sites operating at the same time could be severe if not properly planned for and managed. Consideration and mitigation of cumulative impacts in terms of increased traffic movements is, particularly when considering the quality and size of local roads. Of particular concern is the cumulative impacts of noise, dust and vibration from the minerals operations and transportation on the amenity of nearby residents. In addition, cumulative impacts on flood risk, including surface water flooding should be assessed.

The sites lie within close proximity of the High Weald AONB and there are several long-range vistas that can be enjoyed from the vicinity of Stonecastle Farm. It is important that these are respected during the operation and restoration of the sites and that unacceptable adverse impacts are prevented.

There are several Listed Buildings within close proximity of Stonecastle Farm. Every effort should be made to protect these important heritage assets and their settings and unacceptable adverse impacts should be prevented.

Tunbridge Wells Borough Council – Development of the site should only take place where there is no unacceptable adverse impact on health or amenity and appropriate mitigation which is reasonably practical should be implemented to protect residents. Further technical assessments should be robust, thorough and have particular regard to the following, both in terms of the impact of individual sites and in terms of cumulative impact:

- Transport links, including highway safety, operation of the highway network and access to Stonecastle Farm;
- Residential amenity, including in terms of impact via noise, dust, vehicle movements, air quality, vibration, etc;
- Landscape impacts, including the setting of the AONB;
- Heritage: there are areas of potential archaeological importance within the vicinity of the allocations, as well as a number of Listed Buildings (some of which form part of historic farmsteads), the settings to which are important;
- Impact on the high-pressure gas pipeline;
- Ecology, including Local Wildlife Sites;
- Trees, including areas of ancient woodland;
- Flooding, both in terms of surface water and groundwater;
- Pollution, including in terms of the aquifer protection zone;
- Impact on the Green Belt, particularly having regard to the potential growth through the new TWBC Local Plan.

Hadlow Parish Council – Object to the allocation on a number of grounds:

- Concerns over previous arrangement regarding restoration and aftercare at the existing Stonecastle Farm Quarry site.
- Local roads are inadequate for HGVs and the proposal will cause road congestion.
- The impact on flood risk in the wider Medway River Basin needs to be addressed holistically; the proposal could have an adverse impact on flood risk in areas downstream.
- Proposal could have adverse impact on hydrogeology with long term implications.
- Adverse impact on biodiversity; impact on LWSs, Ancient Woodland and breeding populations of birds.
- Cumulative impact with other sites in the area will have an adverse impact on the local landscape character.
- PROW's run through the site which would be negatively impacted.
- Impact on the High Weald AONB.
- Loss of agricultural land and adverse impact on rural economy.

CPRE – Concerned with the following matters:

- Visual impact from the High Weald AONB.
- Severe impact on local roads by HGVs.
- Impacts on PROW, including the Medway Valley Walk and the Wealdway which run on the north side of the River Medway.
- No details of any buildings and processing plant which may impact the openness of the Green Belt and so be in conflict with national Green Belt policy.
- Negative cumulative impact taking account of the Moat Farm site

Consideration should be given to restoring the site to agriculture.

Kent Wildlife Trust – Object to the allocation until it can be demonstrated that there will be no negative impact on the adjacent Local Wildlife Site TM20. Proposed Phase 3 is also adjacent to the Ancient Woodland and therefore the proposal will need to demonstrate that there will be no negative impact on this designation.

RSPB – The site will result in the direct loss of local wildlife sites and therefore share the Kent Wildlife Trust's objection to the allocation of the site.

Forestry Commission – Site assessment has identified:

- BAP Habitat Deciduous Woodland within the site
- Ancient Woodland adjacent to the site

KCC Advisors

In undertaking this detailed assessment, advice has been sought from a range of technical specialists who advise the County Council on planning matters. This includes advice on biodiversity, Public Rights of Way, noise, air quality, landscape, heritage, water resources, stability and highway and transportation interests. The views received have informed the assessment and the discussion section below. Several related standalone specialist reports have been prepared and have been published as background documents. The work has also been informed by the Project's Sustainability Appraisal work.

Views of local residents

Concerns raised by local residents during the options consultation included:

- Impact on local amenity by way of noise, dust and vibrations
- Impact on flora and fauna including Ancient Woodland
- Impact on landscape, including High Weald AONB, and visual amenity
- Impact on public health
- Impact on heritage assets - listed buildings and archaeology
- Extensive quarrying in the area historically
- Encroachment of nearby industry
- Lack of restoration of other quarries in the area is blighting the locality
- Impact on agricultural productivity, including the loss of grade 3 agricultural soil
- Located within the Green Belt
- Highway infrastructure inadequate - surrounding roads are already damaged
- Impact on road safety
- Mineral is not of a good quality and has limited use in industry
- Lack of faith in operators nearby; sites have been abandoned or not restored properly. Lack of restoration causes safety concerns.
- Contamination and depletion of local water resources
- Impact on PROWs such as the Medway Valley Walk
- Impact on flood risk
- Will reveal overhead power cables
- Site previously refused planning permission in 2000

2.0 Sustainability Appraisal

In accordance with statutory requirements a sustainability appraisal (SA) has been completed which considers how well the site performs against certain sustainability objectives. The detailed results of the SA are set out in a separate document.

3.0 Discussion

This section addresses matters raised above as well as those identified during the initial site assessment which are key to assessing the suitability of the site for allocation in the Kent Minerals Sites Plan.

Amenity

The promoted site has been assessed against policy DM11 of the KMWLP which requires that mineral development should not generate unacceptable impacts from noise, dust, vibration, odour, emissions, illumination, visual intrusion, traffic or exposure to health risks and associated damage to the qualities of life and wellbeing to communities and the environment. Similar policy protection is provided within the NPPF.

The site is remote from any significant areas of residential development. The closest sensitive receptors are the residential properties to the north of the site off Hartlake Road, these are 250m away.

Background air quality is considered to be good. Sources of air pollution are likely to be background dusts from agriculture and some transboundary air pollution. It is considered that mitigation is fully achievable against possible adverse impacts. The wet working of the site will suppress dust emissions and so reduce risk of air quality impacts.

Ambient noise climate is likely to be quite low due to the distance of the site from any major roads or built up areas. It is considered that mitigation may be required to protect the properties to the north. Mitigation in the form of routing and hours of operation may be necessary to reduce the level of traffic related noise impacts on surrounding villages including Golden Green. Overall it is considered that sensitive receptors are such a distance away that any negative amenity impacts can be satisfactorily mitigated.

It is considered that mitigation of impacts on the local amenity to acceptable levels is likely to be achievable and so this matter should not preclude the site from allocation.

Highways and Transportation

The proposed site has been assessed against policy DM13 of the KMWLP which requires that minerals development satisfy that the access arrangements are not detrimental to road safety, that the highway network is able to accommodate the traffic flows and will not give rise to unacceptable impact on the environment or local community and that emission control and reduction measures are proposed, particularly within an AQMA. Similar policy support is provided for within the NPPF.

The promotor submitted a Transport Assessment which stated that the site would be served by the existing access to Stonecastle Farm Quarry on Whetsted Road, and all traffic would turn left out of the site in accordance with the existing permission. The transport assessment states that the

quantum of HGV traffic is not proposed to change, and neither is the level of employment on site. The report concluded that there would be no reason to exclude the site on highway safety grounds, and that the existing access remains suitable subject to a few minor repairs.

Planning permission for mineral extraction at Stonecastle Farm was most recently granted in 2017 after it was found that impacts on the highway were acceptable. Mitigation measures are already employed such as the prohibition of vehicles turning right on exiting the site to prevent them driving through surrounding villages.

The Council's Highways Officer considered that provided proposed extensions do not result in an increase of number of vehicle trips per day (meaning that the site would not be worked concurrently to the existing site) then the proposal would likely be acceptable. It is anticipated that the same conditions and restrictions would need to be imposed on the allocation as for the existing site. If this is the case, then the proposed allocation would not trigger the need for further mitigation.

In light of the above it is considered that potential impacts resulting from vehicles accessing the site are not a matters that would preclude the site from allocation.

Landscape and Visual Amenity

The proposed site has been assessed against policy DM2 of the KMWLP which aims to ensure that there are no acceptable adverse impacts on important landscapes, including the High Weald AONB, and sets out the circumstances where impacts upon them would be acceptable. Policy DM2 notes that proposals outside, but within the setting of an AONB will be considered having regard to the effect on the purpose of conserving and enhancing the natural beauty of the AONB. This policy was prepared in line with the NPPF which sets out similar criteria. Impacts on visual amenity are assessed against policy DM11 that seeks to ensure that mineral development is unlikely to generate unacceptable adverse impacts from visual intrusion.

The site is approximately 1km away from the High Weald AONB. It is considered that the site is highly unlikely to have any impact on the setting of the AONB given the low lying nature of the site and surrounding vegetation.

Assessment of landscape impacts concludes that the site is very well enclosed by vegetation cover and as such is not clearly visible from publicly accessible locations or from properties. The landscape of the site and surrounding area is of a scale and character that has potential to accommodate quarrying activity with only limited and localised adverse effects.

Detailed restoration proposals would need to demonstrate that the potential loss of BAP habitat deciduous woodland is offset by replacement woodland provision.

The adjacent Ancient Woodland should be retained and not detrimentally affected by the proposed works and should be enhanced by additional woodland planting where possible along the western and southern boundaries of the proposed quarry extension site.

Overall the County Council considers that subject to certain matters being satisfactorily addressed at the planning application stage, the site is acceptable in principle on landscape grounds.

Biodiversity

The proposed site has been assessed against policy DM3 of the KMWLP which requires that proposals do not result in unacceptable adverse impacts on Kent's important biodiversity assets and

SSSIs. This policy was prepared in line with the NPPF which sets out similar criteria.

An ecological appraisal provided by the promoter provides a good understanding of the likely species to be present within the site including protected/notable species. This appraisal concludes that there is suitable habitat within or adjacent to the site for a number of species.-

Information would need to be submitted as part of any planning application to demonstrate that appropriate mitigation of any habitat loss can be implemented. The applicant would need to demonstrate that they have sufficient land to create and establish replacement habitat. The restored areas of the wider site could be used as mitigation areas however this will need to be fully understood before work can commence.

Any loss of Deciduous Woodland Priority Habitat to the new lake area (post extraction) will be compensated with new woodland planting such that the amount of available woodland habitat does not change.

There is an area of Ancient Woodland to the south of the site, this is outside of the site boundary so will be excluded from the area of working. A suitable buffer will need to be implemented and maintained so that the designation is not impacted indirectly.

Local Wildlife Site TM20 sits to the north, there is potential that this could be indirectly impacted by the activities on taking place on site and as such suitable buffers and other mitigation will need to be employed.

In light of the above it is concluded that the site can be allocated as acceptable in principle on biodiversity grounds.

Historic Environment

The proposed site has been assessed against policy DM5 of the KMWLP which requires that there should be no unacceptable adverse impact on Kent's historic environment taking account of mitigation and compensation and heritage assets be conserved in a manner appropriate to their significance. This policy was prepared in line with the NPPF which sets out similar criteria.

The closest heritage assets are two listed buildings to the north of the site, separated by the River Medway and associated vegetation. The proposed access route will not pass them. There may be some indirect impacts on the setting of these buildings however these could be dealt with through appropriate mitigation. The nearest Conservation Area is Little Mill, East Peckham, which is approximately 2km away.

There are no known archaeological remains within the site or in close proximity. Deposits within this site do have potential for early prehistoric remains. Earlier extraction to the east has revealed remains of timber structures and a possible Saxon mill, demonstrating the potential for evidence of later prehistoric and later use and management of the water channels. A number of WWII defensive sites are located along the Medway to the north and features associated with these may fall within the proposed site.

Cultural Heritage would need to be addressed through a multi-phased programme both desk-based and field work, with mitigation fully informed and appropriate to the significance of the heritage assets affected. This would need to include palaeo-environmental and geoarchaeological

assessment as well as regular broad ranged heritage assessment.

Prior to permission for extension of the areas of extraction, the impact of the proposals upon the historic landscape and surviving features and Listed Buildings should be fully assessed and mitigation measures undertaken to avoid impacts including on their setting. The historic landscape should be taken into account during works and in later site landscaping and restoration programme.

Historic England has been consulted on the proposal to allocate this site for mineral working and it has not raised any specific concerns.

It is considered that potential for archaeology could be dealt with through appropriate monitoring and mitigation at the planning application stage and it is concluded that the potential impact of the site on the historic environment is not something which should preclude the site from allocation.

Need for the Material

The proposed site has been assessed against policy CSM2 that sets out the requirements for the supply of sharp sand and gravel. This policy was prepared in line with NPPF.

The deposit in this location constitutes river terrace sand and gravels.

Calculations regarding supply and demand based on 2017 data, taken together with an 18-year landbank, suggest the shortfall is now in the order of 5.75mt for sharp sand and gravel¹⁵. The yield from this site is estimated to be 1 million tonnes which would make a significant contribution to supply requirements.

British Geological Survey data indicates that terrace sands and gravel is an economic mineral. The actual economic viability of any one particular deposit largely depends on the local economy and specification for quarried materials supply. While the material may not currently have significant market demand, workings have occurred in the past in the locality and thus the economic viability of the deposit may improve, particularly as other land-won resources are increasingly depleted. In this instance, it is noted that the site has been promoted by Tarmac Trading Limited, an international aggregate company as an extension to existing quarrying activity at Stonecastle Farm.

Green Belt

The proposed site has been assessed against policy DM4 of the KMWLP which states that development within the Green Belt will be considered in light of its potential impacts and shall comply with national policy and the NPPF policy on Green Belt.

The site is within the Metropolitan Green Belt. Whilst mineral development does not inherently constitute inappropriate development within the Green Belt, elements such as plant/processing equipment, infilling of waste and screening measures (such as bunds and fencing) can impact the openness of the Green Belt.

The arrangement with regards to plant and machinery are that those in the existing Stonecastle Farm Quarry site will be utilised. No clear requirement for screening bunds has been identified. Restoration is proposed to open water.

Therefore, in this instance, impact on the openness of the Green Belt is considered to be negligible. KCC's Landscape Assessment considered the impact of the site against the principle of openness

¹⁵ See Sharp Sand and Gravels Topic Paper 2018

and concluded that due to lack of clear view from receptors, there is little scope for visual impacts and impacts on openness to occur.

As such, it is concluded in principle that, as the mineral extraction is not inappropriate development and such development in this location would preserve openness and not conflict with the purposes of including land within the Green Belt, allocation of this site would not conflict with policy on Green Belt.

Water Environment

The proposed site has been assessed against policy DM10 of the KMWLP which requires that development should result in no deterioration and improved ecological status of all waterbodies within the site and/or hydrologically connected to the site. This policy was prepared in line with the NPPF.

The majority of the site is within Flood Zone 3 which has the highest probability of flooding. KCC's Flood Risk Assessment concluded the following:

- The main potential source of flooding to the site is fluvial flooding.
- There is potential for a high water table at the site, resulting in a potential requirement for dewatering.
- As the development involves an extraction of minerals as opposed to raising the ground level, it will not result in a loss of water storage for the flood plain. The resulting waterbodies could provide water storage and reduce flood risk off site.
- A 16 metre buffer should be provided around nearby watercourses.
- Further hydraulic modelling would be needed to establish the impact of the site on the watercourses, including the watercourse running through the site.

In terms of impact on groundwater resources; the site extends into Source Protection Zones 1, 2 and 3. When planning permission was sought for Stonecastle Farm Quarry (approximately 20 years ago) the two phases being promoted now were refused due to a lack of information on the impacts they would have on local water supply; the water company could not recommend that these two phases be granted planning permission.

The promoter has presented the water company (South East Water) with further information on the impacts to hydrology and hydrogeology. This included a commitment to "wet working" the site to remove the need for dewatering. South East Water have accepted that this reduces the risk of impinging on groundwater levels and are supportive of this change. They concluded that further monitoring would need to be carried out, and a Hydrometric Monitoring Strategy would need to form part of a development management requirement for the site.

Further engagement will be undertaken with South East Water and the Environment Agency in the event of a planning application to be submitted, and policy provision would ensure that appropriate monitoring and mitigation take place so that the site does not have an adverse impact on the water environment.

Overall it is considered that the potential impact of the site on the water environment is not a matter that would preclude the site from allocation.

Land Stability

The proposed site has been assessed against policy DM18 of the KMWLP which expects that planning permission for development will not be granted unless it is demonstrated that development will not result in land instability. This policy was prepared in line with the NPPF.

The County Council's land stability report¹⁶ concludes that the proposed operations will have a minimal risk in terms of land stability. There are very few sensitive receptors adjacent to the site and any impact can be mitigated. Land stability is not therefore a matter that would preclude the site from allocation.

Soil Quality

The proposed site has been assessed against policy DM1 of the KMWLP which requires that proposals demonstrate that there is no unacceptable adverse impact on the use of other land for other purposes possible. This policy was prepared in line with the NPPF.

Natural England's Agricultural Land Classification Map states that the site comprises grade 3b agricultural soil which is considered to be moderate soil which has limitations on the range of crops it can yield. Furthermore, due to the limited size of the site it is not considered that development in this location would lead to a significant loss of agricultural soils.

PROW

The proposed site has been assessed against policy DM14 of the KMWLP which requires that where proposals impact a PROW, they will only be permitted if; satisfactory prior provisions for diversion of the PROW can be made which are convenient and safe for the PROWs users, an acceptable alternative route can be provided during operations and restoration, and opportunities to improve countryside access are taken wherever possible. This policy was prepared in line with the NPPF which sets out similar criteria.

There are no PROWs which cross the site. PROW MT160 runs to the north of the site, separated by the River Medway and PROW TT168 runs to the south west of the site off of Hartlake Road.

Whilst these PROWs will not be directly affected or require any diversion, their setting will be altered due to the quarrying operations. The need for appropriate mitigation measures and their efficacy will be considered at planning application stage. It is therefore concluded that the site should not be excluded due to impacts on the PROW network.

Cumulative Impact

The proposed site has been assessed against policy DM12 of the KMWLP which expects that mineral development should not result in an unacceptable adverse, cumulative impact on the environment or communities. This policy was prepared in line with the NPPF which sets out similar criteria.

It is recognised other proposed site allocations for mineral working are in the surrounding area. The KMWLP notes that cumulative impacts may occur where separate developments occur near to each other and there is a need for such impacts to be taken into account. The assessment of potential impacts which could arise from development in this location has not revealed that unacceptable cumulative impacts would arise that could not be satisfactorily mitigated against, however cumulative

¹⁶ KCC (Amey) Land Stability Assessment Technical Report August 2018

impacts will require further consideration if a proposal were to come forward.

4.0 Conclusion - M13: Stonecastle Farm Quarry Extensions, Hadlow/Whetsted

The volume of sharp sand and gravel needed to meet KMWLP requirements can be supported by allocation of this site. Adverse impacts associated with mineral development in this location can be addressed and satisfactorily mitigated through the planning application process.

The detailed assessment work has concluded that the Stonecastle Farm Quarry Extension site (M13) is acceptable in principle for mineral development, subject to compliance with the development management considerations, with particular reference to:

Transport

- A detailed transport assessment to demonstrate compliance with KMWLP Policy DM13
- All quarry traffic to utilise the existing Stonecastle Quarry access onto Whetsted Road, and only turn left when exiting the site.
- The site shall only be worked sequentially to the permitted phases at Stonecastle Farm Quarry or the Moat Farm Quarry (should planning permission be granted for this latter site). To avoid unacceptable impacts on the local highway network the M13 Stonecastle Farm Extension, the Moat Farm Site (M10) and the permitted Stonecastle Farm Quarry shall not be worked concurrently.

Water Resources

- A minimum 16 metre buffer will need to be provided between extraction and nearby watercourses.
- Demonstration that the site will have no adverse impacts on hydrology or hydrogeology. This should be undertaken in liaison with South East Water and the Environment Agency and will need to include (amongst other matters) the following:
 - o The risk of pollutants entering the restored open lakes
 - o A Hydrometric Monitoring Strategy; the results of this should be regularly reviewed and the conceptual model of the site updated as required
 - o Risk to derogation of the activities subject to Abstraction Licenses in the vicinity of the site.
- Compliance with the Environment Agency's approach to the management and protection of groundwater as outlined within their Groundwater Protection Position Statements and take all measures and precautions necessary to avoid deterioration in the quality of groundwater below the site.
- The restoration plan will need to have reference to the proposed lakes and their interface with the nearby watercourses in accordance with Environment Agency advice. It must also include evidence to demonstrate how the integrity of nearby watercourses will be retained.
- The two abstraction licenses within the vicinity of the site will need to be taken into account.
- Dewatering techniques must not be used that would impact local water resources.
- Any application will need to be accompanied by a detailed flood risk assessment.

Amenity

- A lighting, noise, dust and vibration management plan should be completed, setting out how unacceptable impacts will be avoided. A detailed dust assessment and management plan should be submitted which follows best practice and any national Government guidance (e.g. Planning Practice Guidance).

- Compliance with policy DM11 of the KMWLP in respect of health and amenity.

Biodiversity

- A detailed ecological appraisal setting out any mitigation measures needed to ensure there are no unacceptable impacts on Kent's biodiversity assets
- Detailed restoration proposals will need to demonstrate that the potential loss of the BAP habitat deciduous woodland is offset by replacement woodland provision within the proposed restoration plan. This should include a range of trees and shrub sizes to create a vertical design element to the planting.
- Any operations should exclude the Ancient Woodland and a suitable buffer should be employed as to not impact on the designation directly or indirectly
- Restoration scheme should incorporate additional woodland planting where possible, including native evergreen species along the western and southern boundaries of the proposed quarry extension site.
- Suitable buffer zones and mitigation to be proposed to mitigate impacts to Local Wildlife Site TM20.
- The developer to appropriately manage the Nuttall's pondweed and Crassula in the area.
- The need for compensatory replacement habitat

Heritage

- Further assessment of the potential impact of proposals on the historic landscape and surviving features is necessary and should account of the historic landscape should be taken during works and in later site landscaping and restoration programme.
- The impact of proposals upon the Listed Buildings should be fully assessed and mitigation measures undertaken to avoid impact on their setting.
- Any planning application should be accompanied by a full archaeological impact assessment to ascertain the extent of such remains.

M9 The Postern, Capel - Sharp Sand and Gravels

Site withdrawn by Promoter – unable to demonstrate acceptable access. **Not allocated in Pre-Submission Draft Mineral Sites Plan.**

6 Conclusion

Following the Call for Sites in 2016, 19 mineral sites were nominated for consideration for potential allocations in the Mineral Sites Plan. Nine of the sites were selected following initial assessment as 'Options' i.e. sites that were considered potentially suitable for allocation in the Kent Mineral Sites Plan, subject to public consultation and detailed technical assessment. These sites have been subject to public consultation, detailed technical assessment and Sustainability Appraisal. The work has concluded that three of the sites should progress as Preferred Options Sites for allocation in the Mineral Sites Plan – one soft sand site and two sharp sand and gravel sites. These sites are considered acceptable in principle for mineral development, subject to planning applications demonstrating that relevant development management criteria can be met.

In summary, the DTA concluded the following:

2.7 In summary, the DTA concluded the following:

M3 - Chapel Farm, Lenham - Western Site	Suitable for allocation in Pre-Submission Draft Mineral Sites Plan , subject to meeting development management criteria at planning application stage
M3 - Chapel Farm, Lenham - Eastern Site	Site withdrawn by promoter – due to likely unacceptable impact on heritage asset. Not allocated in Pre-Submission Draft Mineral Sites Plan.
M8 - West Malling Sandpit, Ryarsh	Site not allocated in Pre-Submission Draft Mineral Sites Plan – inconsistent with green belt policy with regard to inappropriate development. An alternative promoted soft sand site at Chapel Farm, Lenham lies outside the Green Belt and is considered acceptable in principle to meet the soft sand mineral requirements in Kent. It is not therefore reasonable to conclude that the necessary 'very special circumstances' exist to override the presumption against inappropriate development within the Green Belt. It is noted that the site is within the setting of the Kent Downs Area of Outstanding Natural Beauty (AONB) and the impacts upon the AONB are uncertain.
M2 - Lydd Quarry/Allen's Bank Ext, Lydd	Site not allocated in Pre-Submission Draft Mineral Sites Plan - Likely unacceptable impacts upon the Dungeness, Romney Marsh and Rye Bay Special Protection Area (SPA), the Special Area of Conservation (SAC) and the Ramsar Site; Likely unacceptable impact upon the Dungeness, Romney Marsh and Rye Bay Site of Special Scientific Interest (SSSI). In respect of parcel 23 (Allen's Bank), the likely unacceptable impact upon archaeological interests. It is noted that the impact upon the setting and character of the historic town of Lydd is uncertain.
M7 – Central Road, Dartford	Site not allocated in Pre-Submission Draft Mineral Sites Plan – Likely unacceptable highway impacts on Bob Dunn Way (A206) and on M25 Junction 1a (Dartford Crossing), likely unacceptable loss of

	biodiversity habitat, impact upon Local Wildlife Sites (LWS) and UK Biodiversity Action Plan (BAP) interests, likely unacceptable impacts on residential amenity, likely unacceptable air quality impact on AQMA and conflict with Local Plan open space objectives.
M10 - Moat Farm, Five Oak Green, Capel	Suitable for allocation in Pre-Submission Draft Mineral Sites Plan , subject to meeting development management criteria at planning application stage
M11 – Joyce Green Quarry, Dartford	Site not allocated in Pre-Submission Draft Mineral Sites Plan - Likely unacceptable highway impacts on Bob Dunn Way (A206) and on M25 Junction 1a (Dartford Crossing), likely unacceptable air quality impact on AQMA, likely unacceptable loss of biodiversity habitat, impact upon LWS and UK Biodiversity Action Plan (BAP) interests and uncertainty that restoration proposals would meet ecological objectives to replace habitat and conflict with Local Plan open space objectives. The mineral proposal is considered to be inappropriate development within the Green Belt through restoration proposals and harm arising from highway impacts, air quality and biodiversity impacts.
M12 - Postern Meadows, Tonbridge	Site not allocated in Pre-Submission Draft Mineral Sites Plan - insufficient evidence to complete DTA in order to conclude with any certainty that the development is acceptable in principle for mineral development.
M13 - Stonecastle Farm Quarry Ext, Hadlow/ Whested	Suitable for allocation in Pre-Submission Draft Mineral Sites Plan , subject to meeting development management criteria at planning application stage
M9 The Postern, Capel	Site withdrawn by Promoter – unable to demonstrate acceptable access. Not allocated in Pre-Submission Draft Mineral Sites Plan.

The three sites M3 - Chapel Farm, Lenham - Western Site, M10 - Moat Farm, Five Oak Green, Capel and M13 - Stonecastle Farm Quarry Ext, Hadlow/ Whested are considered suitable for allocation in the Pre-Submission Draft Mineral Sites Plan, subject to meeting development management criteria at planning application . These 3 sites are incorporated into the Pre-Submission Draft of the Kent Mineral Site Plan as site allocations for independent examination by an Inspector appointed by the Secretary of State for Housing, Communities and Local Government.

Appendix 1 – Initial Site Assessment - RAG Sensitivity Scoring Criteria

Opportunity/Constraint	RAG Sensitivity Score					Information source
	RED	RED-AMBER	AMBER	AMBER-GREEN	GREEN	
<p>Landscape Designations/Visual Impact</p> <p><i>Key considerations:</i></p> <p>The significance of any landscape and visual impact is dependent on a number of factors, such as the proximity to sensitive viewpoints, presence of screening features, direct effect on landscape fabric, existing landforms and the proximity to Kent's landscape designations of national importance.</p> <p>Kent has two nationally important landscape designations- the Kent Downs and the High Weald Areas of Outstanding Natural Beauty (AONB).</p>	<p>The site is in the AONB, there are no exceptional circumstances and the development cannot be demonstrated to be in the public interest².</p>	<p>The site is in the AONB but there may be exceptional circumstances and it may be in the public interest.</p> <p>The site is adjacent to or within the setting of the AONB and could have a major adverse impact on the landscape designation that could require high level mitigation.</p> <p>The site falls outside the AONB and could have a major adverse impact on the landscape that could be difficult to mitigate.</p> <p>The site is considered to have a major impact upon local landscape.</p>	<p>The site is the AONB, and there are exceptional circumstances and it is in the public interest but it could have an adverse impact on the landscape designation.</p> <p>The site is adjacent or within the setting of an AONB and could have a moderate adverse impact on the landscape designation, that could require medium level mitigation.</p> <p>The site falls outside the AONB and could have a moderate adverse impact on the landscape that could require medium level mitigation.</p> <p>The site is considered to have a moderate impact upon local landscape.</p>	<p>The site is adjacent to or within the setting of the AONB and could have a minor adverse impact on the landscape designation, requiring low level mitigation.</p> <p>The site falls outside the AONB and could have a minor adverse impact on the landscape that could require low level mitigation.</p> <p>The site is considered to have a minor adverse impact upon local landscape.</p>	<p>The site is not within the AONB or its setting and would have no impact on the landscape designation.</p> <p>The site falls outside the AONB and could have a very minor impact on the landscape designation that could be addressed with mitigation.</p> <p>The site is considered to have no impact upon local landscape.</p>	<p>GIS Data</p> <p>The Kent Landscape Assessment Parts 1 and 2 (2003) Landscape character area design guidance (Kent Downs AONB & High Weald AONB)</p> <p>Consultation with landscape specialists and Natural England.</p> <p>Promoter of site</p>

² NPPF paragraph 116 development proposals in AONB designations should be refused unless there are exceptional circumstances that can be demonstrated in the public interest.

	RAG Sensitivity Score					
<p>Nature Conservation and Geodiversity</p> <p><i>Key considerations:</i></p> <p>Proximity to international designations. E.g. SAC, SPA, Ramsar</p> <p>Proximity to national designations. E.g. SSSI, National Nature Reserve, Ancient Woodland.</p> <p>Proximity to Local Designations. E.g. Regionally important Geological and Geomorphological Sites (RIGS), Local Wildlife Sites, SNCI and Biodiversity Action Plan (BAP) Habitats³</p> <p>With all designations the proximity, perceived adverse impacts and the potential for mitigation should be considered.</p> <p>Potential for enhancement of local designations can be taken into account.</p>	<p>The site is likely to have a significant effect on international designations and mitigation measures are not available.</p> <p>Site is within or could have unacceptable adverse impact on national designations</p> <p>Impact likely to be severe.</p>	<p>The site is likely to have a significant effect on international designations, mitigation measures are available but are of a nature which means they may not be deliverable.</p> <p>Site is within or could have unacceptable adverse impact on national and/or local designations where there is no evidence the impacts can be mitigated or compensated such that there is net benefit.</p> <p>Impact is likely to be severe to moderate.</p> <p>The site is considered to have a major impact upon local sensitivity receptors.</p>	<p>The site is likely to have a significant effect on international designations, mitigation measures are possible but not included in the proposal.</p> <p>Site is within or could have unacceptable adverse impact on national and/or local designations but there is persuasive evidence of the impacts can be mitigated or compensated such that there is net benefit.</p> <p>Impact is likely to be severe to moderate.</p> <p>The site is considered to have a moderate impact upon local sensitivity receptors.</p>	<p>The site could potentially impact international designations and mitigation measures are included in the proposal which are sufficient enough to avoid a likely significant effect.</p> <p>The site is unlikely to have an unacceptable impact on national and/or local designations. Impacts could be addressed with mitigation.</p> <p>Impact likely to be minor.</p> <p>The site is considered to have a minor impact upon local sensitivity receptors.</p>	<p>The site is not likely to have a significant effect on international, national or local designations.</p> <p>The site is considered to have no impact upon local sensitivity receptors.</p>	<p>GIS data</p> <p>Consultation with Natural England and biodiversity officers</p> <p>Promoter of site</p>

³ Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006)

	RAG Sensitivity Score					
<p>Historic Environment</p> <p><i>Key considerations:</i> Proximity to Kent's heritage assets, including registered historic parks and gardens, Listed Buildings, a conservation area or its setting, World Heritage Sites, Scheduled Ancient Monuments, archaeological sites and features and defined heritage coastline. There is a presumption in favour of preserving Listed Buildings and their setting, nationally important archaeological remains in situ and their setting. Proposals for development should not have an adverse effect on Kent's heritage assets including its fabric, setting, amenity value and arrangements for reinstatement</p>	<p>The site could cause a severe unacceptable adverse impact on Kent's heritage assets and/or their setting. No opportunity to maintain or enhance historic asset.</p>	<p>The site may cause a major adverse impact to Kent's heritage assets and/or its setting in the absence of high level mitigation.</p>	<p>The site may cause a moderate adverse impact to Kent's heritage assets and/or its setting in the absence of medium level mitigation.</p>	<p>The site may cause a minor adverse impact to Kent's heritage assets and/or its setting in the absence of low level mitigation.</p> <p>High possibility to result in net planning benefit.</p>	<p>The site may not cause any adverse impact to Kent's heritage assets and/or its setting.</p>	<p>GIS data</p> <p>Consultation with Historic England and officers specialised in archaeology and the historic environment</p> <p>Promoter of site</p>

	RAG Sensitivity Score					
<p>Water Environment (Including flooding)</p> <p><i>Key considerations:</i></p> <p>Proximity to Source Protection Zones (SPZ) or major/minor aquifers</p> <p>Proximity to vulnerable above-ground water bodies. The Water Framework Directive objectives seek no deterioration in current water quality and good status in all water bodies.</p> <p>Proximity to Flood Zones - dependent on type of development (Ref: Planning Practice Guidance*)</p> <p>Mineral extraction can provide opportunities for flood water and general water storage</p> <p><i>Note: The sites will be subject to a separate Sequential Testing exercise in accordance with the NPPF at Stage 3.</i></p>	<p>The site could have a severe unacceptable adverse impact upon groundwater SPZs and/or result in the deterioration of any water resource.</p> <p>The site will exacerbate flood risk in areas prone to flooding.</p> <p>The site could have a severe unacceptable impact upon waterbodies within the site and or hydrologically connected to the site.</p> <p>The site is classed as: "Development should not be permitted" according to the Flood Risk Vulnerability and Flood Zone Compatibility Table in the Planning Practice Guidance*</p> <p>Phase 1 and Phase 2 Hydrogeological Risk Assessment would be required prior to allocation.</p>	<p>The site could have a major adverse impact on groundwater SPZs or water resources in the absence of high level mitigation.</p> <p>The site is classed as: 'Exception Test Required', according to the Flood Risk Vulnerability and Flood Zone Compatibility Table in the Planning Practice Guidance and other sources of flooding could have a major impact requiring high levels of mitigation</p> <p>The site may have a major impact on vulnerable water bodies in the absence of high level mitigation.</p> <p>Phase 1 Hydrogeological Risk Assessment would be required prior to allocation.</p>	<p>The site could have a moderate adverse impact on groundwater SPZs or water resources in the absence of medium level mitigation</p> <p>The site is classed as: 'Exception Test Required' according to the Flood Risk Vulnerability and Flood Zone Compatibility Table in the Planning Practice Guidance and other sources of flooding could have a moderate impact requiring mitigation</p> <p>The site may have a moderate impact on vulnerable water bodies in the absence of medium level mitigation.</p> <p>Phase 1 Hydrogeological Risk Assessment would be required prior to allocation</p>	<p>The site could have a minor adverse impact on groundwater SPZs or water resources in the absence of low level mitigation.</p> <p>The site is classed as: 'Development is appropriate', according to the Flood Risk Vulnerability and Flood Zone Compatibility Table in the Planning Practice Guidance and other sources of flooding could have a minor impact that can be mitigated</p> <p>The site may have a minor impact on vulnerable water bodies in the absence of low level mitigation.</p>	<p>The Site will have no unacceptable impact on water resources.</p> <p>'Development is appropriate' according to the Flood Risk Vulnerability and Flood Zone Compatibility Table in the Planning Practice Guidance and other sources of flooding could have no impact.</p> <p>Good opportunities for flood risk mitigation.</p>	<p>GIS Data</p> <p>Consultation with the Environment Agency and flood risk officers.</p> <p>Strategic Flood Risk Assessment (SFRA)</p> <p>Promoter of site</p>

	RAG Sensitivity Score					
<p>Air Quality</p> <p><i>Key considerations:</i></p> <p>Emissions to air can be of concern at some facilities- dealt with at planning application stage if necessary through use of conditions and controls</p> <p>Proximity to Air Quality Management Areas- Impacts on AQMA could be mitigated by conditions and controls.</p>	<p>The site is within an AQMA, unacceptable adverse impacts cannot be mitigated.</p>	<p>N/A</p>	<p>The site is near to an AQMA or may have adverse impacts on air quality that is capable of mitigation.</p>	<p>N/A</p>	<p>The site poses low or no risk of adverse impacts to AQMAs or air quality.</p>	<p>GIS Data</p> <p>Officer assessment</p> <p>Promoter of site</p>
<p>Soil Quality</p> <p><i>Key considerations:</i></p> <p>Proximity or location of best and most versatile agricultural land. Where significant development of agricultural land is unavoidable, poorer quality land should be used in preference to higher quality.</p> <p>Consider location of sensitive land and soils Potential for enhancement</p>	<p>The entire site contains best and most versatile agricultural land which could be severely impacted by the development.</p>	<p>Large parts of the site contain best and most versatile agricultural land which could be majorly impacted by the development.</p>	<p>Small parts of the site contain best and most versatile agricultural land which could be moderately impacted by the development</p> <p>Opportunities for mitigation and restoration exist.</p>	<p>The could impact best and most versatile agricultural land which could require minor mitigation.</p> <p>Good opportunities for mitigation and restoration.</p>	<p>The site contains low quality soil</p> <p>There could be opportunities to restore the site such that the quality of soil is enhanced.</p>	<p>GIS data</p> <p>Consultation with landscape officers and Natural England if necessary</p> <p>Officer Assessment</p> <p>Promoter of site</p>

	RAG Sensitivity Score					
<p>Public Rights of Way (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 (e.g. North Downs Way and England Coast Path)</p> <p>Potential for enhancement (would be sought at all sites)</p>	<p>The site is likely to cause severe unacceptable adverse impact upon the PRoW without satisfactory provision for diversion and/or mitigation.</p> <p>Significant adverse impact upon Kent's Long Distance Trails.</p>	<p>The site is likely to cause major adverse impact upon the PRoW network and Kent's Long Distance Trails but this could be satisfactorily diverted and/or extensively mitigated</p>	<p>The site could cause moderate adverse impact upon the PRoW network and Kent's Long Distance Trails but this could be satisfactorily diverted and/or mitigated.</p>	<p>Site is in the vicinity of a the PRoW network and Kent's Long Distance Trails and may only cause minor adverse impacts on PRoW network and Kent's Long Distance Trails</p>	<p>Site will have no effect on PRoW network and Kent's Long Distance Trails.</p> <p>An opportunity for enhancement has been identified.</p>	<p>GIS data</p> <p>Consultation with the County Council's PRoW officers</p> <p>Promoter of site</p>

	RAG Sensitivity Score					
<p>Transport (Including Access)</p> <p><i>Key considerations:</i></p> <p>Proximity to Kent's Trunk Roads, Primary Route Network and Secondary Route Network will be assessed, including the presence of width, height and weight restrictions along these routes</p>	<p>The site could have a severe unacceptable adverse impact on transport and access in the absence of high level mitigation.</p> <p>There are severe issues with access to the Primary Route Network and Secondary Route Network.</p> <p>Mitigation is not practical.</p>	<p>The site could have a major adverse impact on transport and access in the absence of high level mitigation.</p> <p>There are major issues with access to the Primary Route Network and Secondary Route Network.</p> <p>The identified impacts could be mitigated in principle but this might not be deliverable.</p>	<p>The site could have a moderate adverse impact on transport and access in the absence of medium level mitigation.</p> <p>There are moderate issues with access to the Primary Route Network and Secondary Route Network.</p> <p>The identified impacts could be mitigated through planning obligations.</p>	<p>The site could have a minor adverse impact on transport and access in the absence of low level mitigation.</p> <p>There are minor issues with access to the Primary Route Network and Secondary Route Network.</p> <p>The identified impacts could likely be mitigated through planning obligations.</p>	<p>The site will not give rise to any adverse impacts upon transport and access to Primary and Secondary Route Network.</p>	<p>GIS data</p> <p>Officer assessment</p> <p>Promoter of site</p>
<p>Services and Utilities</p> <p><i>Key considerations:</i></p> <p>Sites need sustainable access to utilities.</p> <p>Equally, they should not interfere with any utilities which pass underneath. Mitigation measures will be considered in terms of cost and benefits.</p> <p>Utilities include water, gas, electricity and telecommunications, as well as railways, HS1 and Crossrail assets.</p>	<p>The site contains services or utilities which could be severely impacted on and no mitigation measures can be used.</p>	<p>The site contains services or utilities which could require major mitigation through rerouting, and/or the location of cables/pipes hampers the ability to maximise capacity yield from the site.</p>	<p>The site contains services or utilities that would require consideration through re-routing or other medium levels of mitigation</p>	<p>The site is near to services or utilities and any minor adverse impacts may require low-level mitigation.</p>	<p>There are no services or utilities near to, or within the site.</p>	<p>Officer assessment</p> <p>Utility providers</p> <p>Promoter of site</p>

	RAG Sensitivity Score					
<p>Health and Amenity</p> <p><i>Key considerations:</i></p> <p>This includes impact of 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> <p>Consider proximity of local communities whose amenity may be impacted by development</p> <p>Appropriate and suitable mitigation measures to reduce the risk of unacceptable adverse impacts should be considered.</p>	<p>The site could cause severe unacceptable adverse impact on health and amenity and/or adjacent land uses with no mitigation demonstrated.</p>	<p>The site could cause a major adverse impact to health and amenity and/or adjacent land uses in the absence of a high levels of mitigation as demonstrated.</p>	<p>The site may cause a moderate adverse impact to health and amenity and/or adjacent land uses in the absence of a medium levels of mitigation as demonstrated</p> <p>Possibility to result in net planning benefit.</p>	<p>The site may cause a minor adverse impact to health and amenity and/or adjacent land uses in the absence of low level mitigation.</p> <p>High possibility to result in net planning benefit.</p>	<p>The site may not cause any adverse impact to health and amenity and/or adjacent land uses.</p>	<p>Officer assessment</p> <p>Promoter of site</p>

	RAG Sensitivity Score					
<p>Cumulative Impacts</p> <p><i>Key considerations:</i></p> <p>NPPF states that policies and proposals should take account of existing activity and impacts, the duration and nature of proposals for new or further workings, and the extent of impacts that a particular site, locality, community, environment or wider areas of mineral working can reasonably be expected to tolerate over a particular or proposed period.</p>	<p>The cumulation of activity at the site with existing development will result in an unacceptable adverse impact on the environment and/or communities that cannot be satisfactorily mitigated.</p>	<p>The cumulation of activity at the site with existing development may result in an unacceptable adverse impact on the environment and community that will require high level mitigation.</p>	<p>The cumulation of activity at the site with existing development may result in moderate impact on the environment and community that will require medium level mitigation.</p>	<p>The cumulation of activity at the site with existing development may have some impact on the environment and community that will require low level mitigation.</p>	<p>There are no concerns of cumulative impacts resulting from the development of the site.</p>	<p>Officer assessment</p> <p>Promoter of site</p>

	RAG Sensitivity Score					
<p>Airport Safeguarding Zones</p> <p><i>Key considerations:</i></p> <p>Aircraft are vulnerable to birdstrikes, and 80% of all strikes occur on an aircraft's take-off or landing 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 birdstrike 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</p>	<p>The site is within an Airport Safeguarding Zone and the nature of the site is likely to attract birds and increase the risk of bird strike for aircraft.</p> <p>No mitigation is practical or possible.</p>	<p>The site is within an Airport Safeguarding Zone and the nature of the site is likely to attract birds and increase the risk of bird strike for aircraft.</p> <p>High level mitigation is required which may make the site undeliverable.</p>	<p>Site is within an Airport Safeguarding Zone. Either:</p> <p>Nature of the site means that it is unlikely to attract birds and increase the risk of birdstrike for aircraft.</p> <p>The site is likely to be deliverable through employing medium level mitigation measures so it is unlikely to attract birds and increase the risk of birdstrike.</p>	<p>Site is within an Airport Safeguarding Zone. Either:</p> <p>Nature of the site means that it is unlikely to attract birds and increase the risk of birdstrike for aircraft.</p> <p>The site is likely to be deliverable through employing low level mitigation measures so it is unlikely to attract birds and increase the risk of birdstrike.</p>	<p>The site is not within an Airport Safeguarding Zone.</p>	<p>CAA, NATS</p> <p>Officer assessment</p> <p>Promoter of site</p>
<p>Green Belt</p> <p><i>Key considerations:</i></p> <p>Within the NPPF is a presumption to consider development within the Green Belt as inappropriate.</p> <p>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, they do not require Very Special Circumstances.</p>	<p>Site constitutes inappropriate development within the Green Belt, and no substantive case for very special circumstances has been presented.</p>	<p>Site constitutes inappropriate development within the Green Belt and a case for very special circumstances has been presented. Major levels of mitigation may be required.</p>	<p>Site constitutes inappropriate development within the Green Belt, but a substantive persuasive case for very special circumstances has been presented. Medium levels of mitigation may be required.</p>	<p>Site constitutes inappropriate development within the Green Belt and a substantive persuasive case for very special circumstances has been presented. Low levels of mitigation may be required.</p>	<p>Site is not within the Green Belt.</p> <p>Site is within the Green Belt but it is not considered inappropriate development</p>	<p>GIS data</p> <p>Officer assessment</p> <p>Promoter of site</p>

Appendix 2 - Green Belt Considerations – West Malling Sandpit (M8)

1. Introduction

1.1 This report provides details of Green Belt policy at national and local level, a summary of prevailing case law and an assessment of the M8 -West Malling Site.

-

2. Policy Considerations

National Planning Policy Framework 2018 (NPPF)

2.1 Green Belt policy is set out in the National Planning Policy Framework, paragraphs 133 - 147. Para 133 states: “The Government attaches great importance to Green Belts. The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence”.

And para 134 notes:

“Green Belt serves five purposes:

- a) to check the unrestricted sprawl of large built-up areas;
- b) to prevent neighbouring towns merging into one another;
- c) to assist in safeguarding the countryside from encroachment;
- d) to preserve the setting and special character of historic towns; and
- e) to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.”

2.2 Para 141 states: “Once Green Belts have been defined, local planning authorities should plan positively to enhance their beneficial use, such as looking for opportunities to provide access; to provide opportunities for outdoor sport and recreation; to retain and enhance landscapes, visual amenity and biodiversity; or to improve damaged and derelict land.”

2.3 In considering proposals affecting the Green Belt, policy (para 143 states that: “Inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances”.

2.4 Paragraph 144 states “When considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt. “Very special circumstances” will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal is clearly outweighed by other considerations.

2.5 For the purposes of planning decisions a local planning authority should regard the construction of new buildings as inappropriate in the Green Belt. There are a limited number of exceptions to this as set out in paragraph 145, being:

- a) buildings for agriculture and forestry;
- b) the provision of appropriate facilities (in connection with the existing use of land or a change of use) for outdoor sport, outdoor recreation, cemeteries and burial grounds and allotments; as long as the facilities preserve the openness of the Green Belt and do not conflict with the purposes of including land within it;

- c) the extension or alteration of a building provided that it does not result in disproportionate additions over and above the size of the original building;
 - d) the replacement of a building, provided the new building is in the same use and not materially larger than the one it replaces;
 - e) limited infilling in villages;
 - f) limited affordable housing for local community needs under policies set out in the development plan (including policies for rural exception sites); and
- g) limited infilling or the partial or complete redevelopment of previously developed land, whether redundant or in continuing use (excluding temporary buildings), which would not have a greater impact on the openness of the Green Belt than the existing development; or not cause substantial harm to the openness of the Green Belt, where the development would re-use previously developed land and contribute to meeting an identified affordable housing need within the area of the local planning authority.

2.6 Certain other forms of development are also not inappropriate for the purposes of Green Belt policy provided they preserve its openness and do not conflict with the purposes of including land within it. These are listed in paragraph 146 as:

- a) mineral extraction;**
- b) engineering operations;
- c) local transport infrastructure which can demonstrate a requirement for a Green Belt location;
- d) the re-use of buildings provided that the buildings are of permanent and substantial construction;
- e) material changes in the use of land (such as changes of use for outdoor sport or recreation, or for cemeteries and burial grounds); and
- f) development brought forward under a Community Right to Build Order or Neighbourhood Development Order.

2.7 Where a development is considered inappropriate development for the purposes of Green Belt policy, 'very special circumstances' will need to be demonstrated if projects are to be acceptable.

2.8 Whether 'very special circumstances' exist involves consideration of whether the harm caused to the Green Belt (or any other harm) by reasons of the development's inappropriateness is clearly outweighed by other considerations. In forming a view as to whether inappropriateness is outweighed by other considerations, it is not unreasonable to draw on the 'exceptional circumstances', listed in para 137, which must exist to justify removing land from the Green Belt. These include:

1. Whether as much use as possible of suitable brownfield sites and underutilised land has been made;
2. Whether the density of development has been optimised;
3. Whether other authorities could accommodate some of the identified need for development, as demonstrated through the statement of common ground.

2.9 Essentially therefore, for minerals development deemed inappropriate, it follows that consideration of whether the demands for the mineral can be met from elsewhere must be an important element in the decision.

Kent Minerals and Waste Local Plan 2013-30 (KMWLP)

2.10 Policy DM4 and explanatory text of the adopted KMWLP relates to Green Belt. The Policy states:

'Proposals for minerals and waste development within the Green Belt will be considered in light of their potential impacts and shall comply with national policy and the NPPF.'

2.11 The explanatory text in Section 7.3 of the KMWLP recognises national guidance on the purpose of the Green Belt and what constitutes inappropriate development. Paragraph 7.3.2 states "Proposals for minerals and waste development within the Green Belt will be considered in light of their potential impacts, national policy and the National Planning Policy Framework".

2.12 Paragraph 7.3.3 states "There is a presumption against inappropriate development within the Green Belt. Inappropriate development is, by definition harmful to the Green Belt and should not be approved except in very special circumstances. When considering any planning application, the planning authority will ensure that substantial weight is given to any harm to the Green Belt. 'Very special circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations."

2.13 Paragraph 7.3.4 provides guidance on what constitutes inappropriate development, It states "The National Planning Policy Framework provides guidance on the purposes of the Green Belt and what constitutes inappropriate development. It states that minerals extraction, engineering operations and the re-use of building provided that the buildings are of permanent and substantial construction are not inappropriate development in the Green Belt provided that they preserve the openness of the Green Belt and proposals do not conflict with the purpose of including land in the Green Belt. Processing plant, although commonly associated with mineral extraction, is unlikely to preserve openness owing to its size, height and industrial appearance and would therefore be inappropriate development. In such cases developers will need to demonstrate very special circumstances if projects are to proceed."

3 Prevailing Case Law

3.1 Prevailing case law is set out in Appendix A.

4 **Site M8 : West Malling**

Proposal

- 4.1 The promoted site comprises an area of 20.8 ha of which 12ha mainly located within the western extent of the site is promoted as a potential mineral extraction area.
- 4.2 The site has the potential to yield approximately 3.1mt of soft sand and 0.5mt of silica sand. The proposed development would include mineral extraction at depths ranging from 8.1m to 24.6m and ancillary facilities such as site access roads, offices, welfare facilities, HGV and car parking. A Landscape and Visual Appraisal document prepared by Waterman Infrastructure & Environmental Limited on behalf of the promoter states that the site offices and welfare facilities would be located within a single storey unit *at current ground level*. Mobile plant, screener and stockpiles would be located *at current ground level* during the first 6-12 months of the development. The site would be worked in phases with progressive restoration involving infilling with inert wastes to follow on from mineral extraction. Overburden from phase 1 would be used to create bunds by the site entrance from Roughetts Road. Further overburden would be used to create bunds at an approximate height of 3m along the eastern boundary of the extraction area with added planting to screen the extraction activities. The site would function as a mineral extraction site for 24 years and a further 5 years to complete restoration, which aims to restore the site to its original agricultural (grade 3b) land use after 5 years by infilling with inert materials.
- 4.3 The West Malling site lies immediately south of the M20 motorway. Access is proposed from Roughetts Road and then onto the A20 which lies to the south of the site. The nearby settlement pattern is relatively dispersed, with the closest properties to the site boundary to the east along Roughetts Road and to the south of the site being 40m and 10m respectively. The Kent Downs Area of Outstanding Natural Beauty (AONB) lies to the north of the site with its southern boundary abutting the M20 motorway. Ancient Woodland is located within the promoted area to the south of the site. Whilst the originally submitted drawings indicate that the boundary with the woodland would be confirmed at a later date, the plan submitted as part of the Transport Assessment prepared on behalf of the promoter identifies the potential extraction area to the north of the ancient woodland. This would accord with a briefing document dated 28th August 2018 sent to Ryarsh Parish Council and available on the promoter's website that states that the woodland would not be worked and that a standoff of 30m is proposed. Two public footpaths run through the site and would need to be temporarily diverted during development.

Green Belt Considerations

- 4.4 For the site to be allocated for mineral extraction in the Mineral Sites Plan, the site option has to be acceptable in principle, having regard to planning policy, guidance and relevant case law. In applying Green Belt policy, there are a number of matters to be considered:
- I. Is the development appropriate or inappropriate development?
 - II. If inappropriate, are there very special circumstances that exist that outweigh the harm to the green belt by reason of its inappropriateness or other harm resulting from the proposal?
- 4.5 Therefore the starting point for Green Belt considerations is to establish whether the development is inappropriate or not in terms of Green Belt policy. In this regard 'the development' is taken to comprise two distinct activities as follows:

1. Mineral extraction
2. Restoration by infilling with inert waste

The assessment below therefore considers these activities separately as follows:

Mineral extraction

- 4.6 Planning policy recognises that mineral extraction is capable of being appropriate development for the purposes of Green Belt policy, where it preserves openness and does not conflict with the purposes of including land within the Green Belt.
- 4.7 In terms of the proposed activity of extracting mineral at the M8 West Malling site, this would not in my view undermine the five purposes that the Green Belt seeks to achieve as set out in paragraph 134 of the NPPF and reproduced in paragraph 2.1 above. In respect of the purpose to assist in safeguarding the countryside from encroachment, it is recognised that while the mineral extraction would result in some encroachment, this would be minor in scale in the context of the Green Belt as a whole. It is also recognised that minerals can only be worked where they are found and that the nature of such development means in practice that this type of development takes place in the countryside and, in any event, is specifically recognised as not being inappropriate development within the Green Belt. I therefore consider that there is no overriding conflict from extraction with this aspect of the Green Belt policy test.
- 4.8 The preservation of openness test is more finely balanced. There is no definition of openness in planning policy. As the case law referred to in Appendix 1 illustrates, the Courts have grappled with the definition and how it is interpreted. In particular this includes: *“The word ‘openness’ is open-textured and a number of factors are capable of being relevant when it comes to applying it to the particular facts of a specific case”*. Whilst it is commonly taken to be the absence of built development, openness also has a visual dimension that decision makers must have regard to in planning judgements. Openness considerations can also be influenced by other factors such as the duration of development and the reversibility of its effects, how built up the Green Belt is now and how built up it would be if development were to occur. A realistic assessment of the impact on openness will have to include consideration of both the likely perceived effect on openness i.e. from visual aspects, as well as the spatial effects of the proposal.
- 4.9 Again, the inclusion of mineral extraction in the list of potential development that can be considered appropriate development supports the view that mineral excavation is capable of meeting the NPPF policy text and that mineral extraction per-se does not automatically mean that extraction will impact upon openness such that it is considered inappropriate. To conclude that all mineral extraction is inappropriate would make the policy wording in the NPPF meaningless. Consideration needs to be given on a case by case basis, taking into account the various components proposed in the development. In this case, these are the extraction activity, the bunds proposed to screen the development, access and parking, site offices and welfare facilities, plant, screener and stockpiles.

In a context where the landscape is generally well enclosed, and where the predominant effect of development would be to reduce existing ground levels, it is unlikely that by themselves, the activity of extracting the mineral and the resulting void would result in a reduction in openness to the extent that it would be material to the openness of the Green Belt. However, there is potential that a negative impact upon openness would arise due to the location and layout of site

compound, material stockpiles, processing plant, movement of HGVs accessing the site and screening requirements.

In respect of the site offices and welfare facilities, these would be located within a single storey unit at current ground level. Mobile plant, a screener and stockpiles would also be located at current ground level during the first 6-12 months of the development. The supporting text to policy DM4 of the Kent Minerals and Waste Local Plan, specifically recognises that *“processing plant, although commonly associated with mineral extraction, is considered unlikely to preserve openness, owing to its size, height and industrial appearance and would therefore be inappropriate development”*. Similarly, the introduction of offices and welfare facilities and the movement of HGVs accessing the site and parking arrangements would introduce urbanising features into the countryside which would have a negative impact upon openness for the duration of the works – i.e. 29 years. Depending on their height and location, material stockpiles could also impact on openness. Three-metre-high screening bunds, together with tree planting, are proposed to mitigate the visual impact of the development for the lifetime of the activities (minimum of 24 years), however I consider that they will impact upon the openness of the Green Belt for a significant period of time.

In light of the above, **I conclude that the activities associated with the extraction of the mineral proposed at this location would not preserve openness and so would constitute inappropriate development.** Inappropriate development is by definition harmful to the Green Belt and should not be approved except in very special circumstances which will not exist unless the potential harm to the Green Belt by reason of inappropriateness and any other harm is clearly outweighed by other considerations.

This conclusion, that the development is inappropriate, is consistent with the position taken by the site promoter: In response to the ‘Call for Sites’ in 2016, the promoter of the M8 site noted that the site falls within the Green Belt, and, while noting that minerals extraction is not inappropriate development, made a case for very special circumstances as follows:

‘The NPPF provides that mineral extraction is not inappropriate in the Green Belt provided it preserves openness and does not conflict with the purposes of including land in the Green Belt. Minerals can only be worked where they are found, and the proposed extraction will be a temporary use of the land, followed by restoration. The very special circumstances in this case include that the minerals are of local and national importance; a proportion is silica sand, which is understood to be nationally scarce’

Whilst the promoter is not specific about the components of the development which trigger inappropriateness, by making a case for the existence of ‘very special circumstances’, the promoter would appear to recognise, that the development is inappropriate for the purposes of Green Belt policy.

Very Special Circumstances: Harm v Other Considerations

Having concluded inappropriateness, a consideration of whether ‘Very Special Circumstances’ exists is required which involves an assessment of whether “the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal is clearly outweighed by other considerations”.

This assessment is usually undertaken at the planning application stage when further details are

known of a proposal and is part of the balancing act of material planning considerations. It is however required at this plan making stage to establish whether the site is acceptable in principle for allocation, given the policy wording of the Kent Mineral and Waste Local Plan and national policy on development within Green Belt.

Harm

In accordance with national policy, when weighing harm against 'other considerations', 'harm' should be taken as "potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal".

In terms of harm to the Green Belt caused by reason of the development's inappropriateness, the matter of concern relates to impacts caused by the site compound, material stockpiles, movement of HGVs accessing the site, processing plant and screening requirements.

I consider that there would undoubtedly be a negative visual impact arising from these aspects of the development, particularly for those properties and footpaths closest to the site, that would affect the perception of openness in this location. The inappropriate development is likely to be prominent in views from properties along Roughetts Road to the east and would also be visible from properties on London Road to the south and Woodgate Road to the north. Visual effects on these properties would be adverse and could be assessed as significant. Similarly, there would be an adverse visual impact experienced by users of the public rights of way affected by the site. The screening bunds (3 metres high plus additional planting on top of the bunds) proposed to mitigate the impact of the development for the lifetime of the activities (minimum of 24 years) would also impact upon openness for a significant period of time.

In establishing the nature and extent of 'any other harm' reference has been made to the detailed technical assessment (DTA) report for mineral development in this location. The DTA includes an assessment of the impacts associated with the following:

- Landscape and the Kent Downs Area of Outstanding Natural Beauty (AONB)
- Biodiversity
- Historic environment
- Water environment
- Loss of grade 3 quality soil
- Local amenity (noise, dust, vibrations and visual impacts)
- Public Rights of Way (PROWs)
- Utilities/services
- Access – impact on highway network
- Air Quality and health
- Need for the mineral
- Land stability

Cumulative impacts with other developments and quarrying operations within the area have also been considered.

The DTA does not conclude with any certainty that unacceptable impacts related to the matters above would occur and so it can be concluded that significant harm is unlikely.

Other Considerations

On the basis of the current information, the following matters are considered to be matters to be weighed as 'other considerations' in the determination of 'Very Special Circumstances':

- a) Need for the mineral
- b) Location of other resources and competition considerations
- c) Duration and reversibility of impacts
- d) Development without those activities that are considered inappropriate for Green Belt consideration
- e) Existence of mineral options outside of the Green Belt to meet need

These matters are considered in turn below.

a) Need for the Mineral

The promoter has identified need for the mineral as a 'Very Special Circumstance' by drawing attention to the fact that the minerals (soft sand and silica sand) are of local and national importance. The promoter asserts that the silica sand element of the reserve is in its highest purity form and is understood to be nationally scarce. It is recognised that the site provides the potential for some 3.1mt of soft sand and a further 0.5mt of silica sand. While Policy CSM2 recognises the need to specially allocate additional reserves for soft sand in the Mineral Sites Plan, development of silica sand reserves is subject to general planning considerations rather than via site allocations.

Policy CSM2 of the Kent Minerals and Waste Local Plan recognises that the aggregate landbank requirements will be reviewed through the annual Local Aggregate Assessment (LAA). The 2018 LAA provides the landbank and sales data to inform the Minerals Sites Plan requirement over the life of the Plan plus 7 years (18 years). On this basis, the Mineral Sites Plan is seeking to provide 2.5mt provision of soft sand for the life of the Plan.

Following the call for sites, two sites have been promoted and initially assessed as meeting the soft sand requirements. These sites, M8 West Malling Sandpit and M2 Chapel Farm Lenham, have the potential to yield 3.1mt and 3.2 mt of soft sand respectively. Each site therefore has the potential to meet Kent's identified need.

There is a desire from West Sussex County Council and the South Downs National Park Authority for Kent County Council to make additional provision to meet some of their needs, given development constraints arising from the location of the resource within the National Park. It is also noted that the potential for the supply of soft sand from sources in the neighbouring county of East Sussex is extremely limited.

At this time, however there is no evidenced need to demonstrate a case to make significant additional provision in Kent to meet a regional need. Furthermore, it is noted that: either of the promoted sites has the potential to generate a surplus to meet wider than Kent needs; that East Sussex's needs from Kent are already factored into the LAA derived requirements; and, that prior to the conclusion of West Sussex's and the South Downs National Park Authority's current Soft Sand Review work it is not possible to conclude that provision for a specific unmet need arising outside of Kent is justified.

West Sussex CC and the South Downs National Park Authority are intending to publish an Issues and Options Consultation to address its soft sand requirements during January to March 2019, with the intention to publish a Regulation 19 proposed Submission Plan in Summer 2019. This work is part of their joint Local Plan Soft Sand Review, following its Inspector's report on the West Sussex Joint Minerals Local Plan in May 2018.

b) Location of other resources and competition considerations

Planning policy and guidance seeks to ensure that in meeting aggregate supply, decisions are not taken that would result in large landbanks bound up in very few sites that stifle competition. In the case of Kent, the latest Local Aggregates Assessment shows that mineral permissions for soft sand exist across the County and are operated by a number of companies. This includes Tarmac Aggregate's site at Sevenoaks Quarry, Ferns Aggregates at Addington, Roger Body at Borough Green Sandpits, Brett Aggregates at Charing Heath, Ightham Sandpits operated by H&H Celcon, Brett Aggregates at Lenham Quarry and J Clubb's site at Nepicar, Platt.

c) Duration and reversibility of impacts

Mineral activity is a temporary development, albeit in this case working would span approximately a generation. The intention would be to excavate mineral from the site over a 24-year period with phased restoration. Depending upon materials, the site would be restored back to agricultural use in some 29 years. Unlike other forms of development, at the end of this period, it is proposed that the site would revert to its current landform. There are examples in the vicinity where former mineral sites have been restored back to open countryside. Nevertheless, the harm to the Green Belt caused by the site activities would occur to a greater or lesser extent for a considerable period of time. In particular, the screening bunds, the site compound and the processing plant would be in place during the excavation and subsequent restoration activities.

d) Development without those activities that are 'inappropriate development'

A potential solution to reducing the impact upon the Green Belt would be to consider whether it is acceptable to carry out the development without those components that trigger inappropriateness. In this case this would be the deletion of the screening bunds, the site compound, material stockpiles, and processing plant. The screening bunds would however play an essential role in mitigating the visual and amenity impacts of the development, particularly for those properties closest to the activities. It is therefore difficult to conclude that the development would be acceptable without such bunding. Similarly, mineral activities of this duration require a site compound, and whilst not essential to the development, material stockpiles and processing plant are typically located as part of the mineral activity.

e) Existence of mineral options outside of the Green Belt to meet needs

As part of a 'very special circumstances' consideration, it is reasonable to consider whether there are alternative solutions that could meet the soft sand requirements in the County. In the absence of alternatives, then the 'very special circumstances' in favour of developing this site within the Green Belt would be strengthened, however, in this case, the County Council has an alternative option which would meet the soft sand need for the county – Chapel Farm, Lenham. This site falls outside the Green Belt and is therefore free from this national policy constraint.

Furthermore, the detailed technical assessment has concluded that the Chapel Farm site is suitable in principle for development.

Conclusion (mineral extraction)

The activities associated with the extraction of minerals at the West Malling site would impact on openness and therefore constitute 'inappropriate development' for the purposes of Green Belt policy. Inappropriate development is by definition harmful to the Green Belt and should not be approved except in 'very special circumstances'. In decision making, local planning authorities are required to give substantial weight to any harm to the Green Belt and that 'very special circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal is clearly outweighed by other considerations.

The harm to the Green Belt caused by inappropriate development would last an estimated 24 years. As there is an alternative site option at Chapel Farm, Lenham that lies outside the Green Belt that meets the soft sand requirements in Kent and is acceptable in principle for mineral development, it is not reasonable to conclude that other considerations clearly outweigh the harm to the Green Belt. As such it cannot be said that very special circumstances exist at this time to override the presumption against inappropriate development within the Green Belt.

Restoration by infilling with inert waste

The restoration of the site to agricultural land by backfilling to existing ground levels using inert waste is considered to be inappropriate development and that 'very special circumstances' will be required to satisfy Green Belt policy. The activity falls outside the mineral extraction activity and engineering operation exemption clauses set out in paragraph 146 (a) and (b) of the NPPF.

This view is consistent with that of the Inspector who, when examining an appeal against refusal of permission for mineral extraction with restoration to agriculture (Pynesfield¹⁷), concluded that this form of restoration is inappropriate development within the Green Belt, essentially because it is not an integral part of mineral extraction, nor is it an engineering operation for the purposes of paragraph 146 of the NPPF.

Very Special Circumstances: Harm v Other Considerations

As above, having concluded inappropriateness, a consideration of whether 'Very Special Circumstances' exists is required which involves an assessment of whether "the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal, is clearly outweighed by other considerations. This assessment is set out below.

¹⁷ Appeal Decision APP/M1900/A/14/2218970

Harm

In assessing the harm resulting from the backfilling operation, it is necessary to establish the impacts and the extent of harm resulting from each of these. The impacts are considered to be related to:

- Highway – those impacts to road users and pedestrians caused by additional HGVs transporting materials to the site (and leaving the site) resulting in congestion on the road network and impacts to the safety of pedestrians and other road users.
- Amenity and health – nuisance and health impacts to residents, visitors and businesses in the area caused by for example dust and noise resulting from the backfilling activity and transporting materials to and from the site.
- Landscape and visual impacts – taking account of the location within the setting of the AONB
- Water environment – hydrology, hydrogeology and flood risk
- Biodiversity
- Historic Environment
- Impacts on Public Rights of Way

With regard to highway impacts, as noted in the DTA, the assessment of transport impacts has indicated that with appropriate routeing arrangements, mineral can be worked from the site without causing unacceptable impacts. It is considered that as the transport associated with the filling activity will be similar, the same conclusion, that in principle there will be no unacceptable impacts can be reached.

In terms of amenity and health, it is considered that the measures proposed to address these issues for the extraction, including screening would also ensure that unacceptable impacts do not occur.

In terms of landscape, the site would be restored to agricultural land at existing levels along with reinstatement of former hedgerows, hedgerow trees and so any harm resulting from the extraction activity would ultimately be mitigated by the filling activity. It is noted that in its response to the consultation on the site options the Kent Downs AONB unit supported the restoration of the site to agricultural land. Such restoration would ensure that views of the site from the AONB to the north are in keeping with the surrounding landscape character.

With regard to visual impacts, it is considered that mitigation of the impacts using screening bunds would incur a visual impact by itself as would the movement of HGVs accessing the site, which would adversely impact on the openness of the Green Belt. However, the infilling activity is estimated to take place over five years and so such impacts would be relatively short-term.

The Environment Agency has noted the intention to restore the site by backfilling and has not raised any in principle objection to this activity in terms of impacts in the water environment including flood risk. Infilling activity involving waste material would require authorisation by the Environment Agency in the form of an Environment Permit and this would further ensure that adverse impacts to the water environment did not arise.

With regard to biodiversity, restoration of the site to existing ground levels would not cause

further impacts and could result in enhancements for example by replanting hedgerows.

In terms of impacts on historic environment, the DTA notes the presence of certain heritage assets but concludes that adequate mitigation could be employed to avoid unacceptable impacts.

Restoration of the site would take five years and impacts on the PROW crossing the site would remain during this period, however, restoration w=to existing ground levels would allow the PROW to be reinstated.

Other Considerations

On the basis of current information, the following matters are considered to be matters to be weighed as 'other considerations' in the determination of 'very special circumstances':

- a) Benefits of restoring the mineral excavation to agricultural land at existing ground levels including replacement of existing features such as hedgerows
- b) Need for management of inert waste by infilling

These matters are considered in turn below.

a) Benefits of restoring the mineral excavation to agricultural land

The restoration of the site in the manner proposed would result in a number of benefits as follows:

- amelioration of landscape and visual impacts
- reinstatement of existing Public Rights of Way (PROWs)
- amelioration of biodiversity impacts caused by extraction with potential for net gains in biodiversity

b) Need for management of inert waste by infilling

Materials resulting from excavation associated with other forms of development frequently require management off site and the infilling activity would provide an opportunity for such management. However, the Kent Minerals and Waste Local Plan notes that there is surplus capacity of the disposal of inert waste within Kent and so, while this activity could provide for a more convenient outlet for such wastes arising locally, overall there is no explicit need for the additional capacity.

Conclusion (Restoration by infilling with inert waste)

The activities associated with the restoration by infilling with inert waste are considered to be inappropriate development within the Green Belt. Inappropriate development is by definition harmful to the Green Belt and should not be approved except in very special circumstances. In decision making, local planning authorities are required to give substantial weight to any harm to the Green Belt and note that very special circumstances will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal is clearly outweighed by other considerations.

The harm to the Green Belt caused by the inappropriate development is assessed as that relating

to visual impacts related to openness caused by screening bunds and movement of HGVs accessing the site, however these would be temporary (approximately five years). There is no evidence that other impacts would result in significant harm. Significant benefits would result from the restoration activity which are considered to clearly outweigh the short-term harm and so it is considered that very special circumstances exist to override the presumption against inappropriate development within the Green Belt.

Overall Conclusion

Restoration of the mineral working by infilling to existing ground levels would constitute inappropriate development but it is considered that very special circumstances exist to override the presumption against inappropriate development within the Green Belt. However, activities associated with the mineral extraction activity also constitute inappropriate development and, by virtue of the fact that the need for the development (supply of soft sand) could currently be met at an alternative suitable site outside of the Green Belt, it is considered that very special circumstances to override the presumption against inappropriate development in the Green Belt do not exist and allocation of this site in this location would therefore be inconsistent with local and national Green Belt policy.

November 2018

Green Belt Prevailing Case Law

- 1 The most recent and pertinent case law relevant to this assessment, is the March 2018 Court of Appeal decision in the case of **R (Samuel Smith Old Brewery (Tadcaster) and Oxton Farm) v North Yorkshire County Council and Darrington Quarries Ltd [2018] EWCA Civ 489**. The case involved a challenge to a planning permission for a 6-hectare quarry extension in the Green Belt at Jackdaw Crag Quarry. The development would lead to an increase in the existing quarry area of approximately 24% and produce around 2 million tonnes of crushed rock over a period of 6-7 years.
- 2 In that case the applicant (Darrington Quarries Ltd) did not justify the development on the basis of there being 'very special circumstances' for the purposes of paragraphs 87 and 88 of the 2012 NPPF but contended that the proposal came within the 'mineral extraction' exception under paragraph 90, and was therefore not 'inappropriate development in the Green Belt'.
- 3 The officer's report to committee concluded that, when considering applications within the Green Belt, it is necessary to consider whether the proposed development would firstly preserve the openness of the Green Belt and secondly not conflict with the purposes of including land within the Green Belt. The officer concluded that openness is not defined but is commonly taken to be the absence of built development. Because the application site abutted an existing operational quarry, it would not introduce development of a scale considered to conflict with the aims of preserving the openness of the Green Belt. She concluded that proposed screening could protect the environment and residential receptors from potential landscape and visual impacts, and the restoration of the temporary quarry and the fact the proposal doesn't conflict with the aims of the Green Belt, meant that it would not materially harm the character and openness of the Green Belt.
4. The Appellant, Samuel Smith Old Brewery, challenged the permission, contending the Council had fundamentally misconstrued and misapplied paragraph 90 of the 2012 NPPF [now para. 146] including by failing to take into account visual impacts when considering whether a proposal would 'preserve the openness of the Green Belt' for the purposes of the proviso of paragraph 90. In the High Court, Justice Hickinbottom accepted that the Council had failed to take visual effects into account in the context of potential impacts on openness, but dismissed the claim on the basis that the Council had not been legally required to do so (or alternatively that had such effects been taken into account, the conclusion the openness would be preserved would have been the same).
- 5 The Appellant appealed and the Court of Appeal allowed their appeal. Lord Justice Lindblom held that:

"...when the development under consideration is within one of the five categories in paragraph 90 and is likely to have visual effects within the Green Belt, the policy implicitly requires the decision-maker to consider how those visual effects bear on the question of whether the development would 'preserve the openness of the Green Belt'. Where that planning judgement is not exercised by the decision maker, effect will not be given to the

policy. This will amount to a misunderstanding of the policy, and thus its misapplication, which is a failure to have regard to a material consideration, and an error of law.”

6 Lord Justice Lindblom went on to find that it was clear that the Council had committed such an error in this case. The Council had limited its consideration of the effects of the development on the openness of the Green Belt to spatial impact and nothing more, despite the fact that, on the Council’s own assessment of the likely effects of the development on the landscape, visual impact on openness was ‘quite obviously’ relevant to its effect on the openness of the Green Belt.

7 Previously, the Courts have grappled in some detail as to the meaning and effect of the policy in Paragraph 90 (now Paragraph 146). **In Europa Oil and Gas Ltd. V Secretary of State for Communities and Local Government [2013]** EWHC 2643 Justice Ouseley concluded that;

“...as Green Belt policies NPPF 89 and 90 demonstrate, considerations of appropriateness, preservation of openness and conflict with Green Belt purposes are not exclusively dependent on the size of building or structures but include their purpose...one factor that affects appropriateness, the preservation of openness and conflict with Green Belt purposes, is the duration of development and the reversibility of its effects...minerals can only be extracted where they are found...”

8 **In Timmins and another v Gelding Borough Council [2014]** EWHC 654, Justice Green said that;

“...any construction harms openness quite irrespective of its impacts in terms of its obtrusiveness or its aesthetic attractions...there is a clear conceptual distinction between openness and visual impact...it is wrong in principle to arrive at a specific conclusion as to openness by reference to visual impact.”

9 **In R (on the application of Lee Valley Regional Park Authority) v Epping Forest District Council [2016]** EWCA Civ 404, when referring specifically to the broad and basic statement of national Green Belt Policy, with emphasis on the “essential characteristics of the Green Belt” as

... “openness and their permanence” Lord Justice Lindblom said that; “...the concept of ‘openness’ means the state of being free from built development, the absence of buildings – as distinct from the absence of visual impact.”

10 **In Goodman Logistics Developments (UK) Ltd v Secretary of State for Communities and Local Government and another [2017]** EWHC 947 the planning inspector, on appeal, found that development, simply by its physical impact, would have a significant adverse impact on the openness of the Green Belt. Having reached that conclusion, the inspector said that an assessment of the visual impact of the development was not relevant to the assessment of the impact of openness. The developer appealed, and the question for the court was whether the visual effect of development could be taken into account as reducing the harm that development would cause to the openness of the Green Belt. The judge in that instance decided that visual

harm and/or perception was an “obviously material” consideration and that the perceived effect upon openness could be less than might be expected because, for example, the development would have a limited effect upon people’s perception of openness from beyond the boundary of the site.

- 11 Important to understanding the extent of what is capable of being relevant to openness, in **Turner v Secretary of State for Communities and Local Government [2016]** EWCA Civ 466 Lord Justice Sales summed up the concept of openness in the following terms:

“The concept of ‘openness of the Green Belt’ is not narrowly limited to the volumetric approach suggested by [counsel]. The word ‘openness’ is open-textured and a number of factors are capable of being relevant when it comes to applying it to the particular facts of a specific case. Prominent among these will be factors relevant to how built up the Green Belt is now and how built up it would be if redevelopment occurs...and factors relevant to the visual impact on the aspects of openness which the Green Belt presents. The question of visual impact is implicitly part of the concept of ‘openness of the Green Belt’ as a matter of the natural meaning of the language used in para 89 of the NPPF [2012]...There is an important visual dimension to checking ‘the unrestricted sprawl of large built-up areas’ and the merging of neighbouring towns, as indeed the name ‘Green Belt’ implies. Greenness is a visual quality...Openness of aspect is a characteristic quality of the countryside, and ‘safeguarding the countryside from encroachment’ includes preservation of that quality of openness.”

- 12 **In the appeal decision (APP/M1900/A/14/2218970)** for mineral extraction and restoration to agriculture at Pynesfield, Maple Cross, Rickmansworth, the Inspector concluded that the infilling of the mineral void was inappropriate development. The decision recognised that the openness of the green belt would be preserved by the infilling activity and that it shared some characteristics with ‘engineering operations’, but it did not fall within this definition, nor that it was an integral part of mineral extraction. Whilst clearly consequent upon the extraction, the operation was necessitated by the chosen restoration strategy rather than the extraction itself.

Appendix 3 - Ryarsh Protection Group representation to Kent County Council, November 2018 - West Malling Sandpit (M8)



WHY RYARSH IS AN INAPPROPRIATE LOCATION FOR THE PROPOSED M8 QUARRY DEVELOPMENT



Photo: May 2018 – Public footpath leading through the undisturbed ancient woodland, identified as ‘The Roughetts’ in Ryarsh. All access to this tranquil area would be cut off and damaged if the proposed site were to be developed.

INTRODUCTION

The Ryarsh Protection Group (RPG) is an action group working alongside Ryarsh Parish Council and surrounding communities. It exists to help residents and local communities with local issues. Currently, the priority is to focus objection on the proposed site M8, also known as ‘West Malling Sandpit’ and ‘Ryarsh Quarry’.

This report which has been produced for the benefit of all stakeholders, including Kent County Council (KCC), and presents 32 justifications as to why the proposed M8 site is unsuitable for a sandpit/quarry. It has been compiled following discussions with residents and local communities. Further information has been sought from experts within their field.

WHY RYARSH IS UNIQUE AND AN INAPPROPRIATE LOCATION FOR THE M8 QUARRY DEVELOPMENT

1. The proposed site is located in the **centre of an ancient Saxon village** and community, situated very close to homes, three schools, four churches, three public houses/restaurants and other public establishments.



Photo: Duke of Wellington, Ryarsh – Originating circa 1516, this public house is a historical landmark

2. The quarry would seriously impact the local community and will have a detrimental effect on the everyday lives of residents and visitors - including **severe impact to their health and wellbeing.**

3. The proposed site is **adjacent to the Kent Downs, an Area of Outstanding Natural Beauty** (AONB).
4. The proposed site is on **elevated landscape**. A quarry would **destroy the openness of this landscape** and would be seen for miles around, including from the Kent Downs AONB.
5. The proposed quarry would be seen and heard from popular **walking routes including Pilgrims Way and North Downs Way** located on the North Downs ridge, blighting the surrounding area. The noise generated from quarry activities would impact these amenities. Recent studies show the **cumulative impact** of such noise, including that from the adjacent M20 motorway, has a detrimental impact on general health and wellbeing.
6. The quarry and its services – lights, noise, dust, fumes and vibration, etcetera, are adjacent to the locally and nationally important M20 motorway. The M20 is a major entry route into the UK by tourists and businesses from Europe, and forms part of European Route E15. If positioned here, the quarry operations will have a **huge visual impact on the Ryarsh environment and on the landscape character**. This applies even if a bund or mound is constructed around the site. The visual impact cannot be mitigated by earth constructions to disguise a huge quarry.
7. The proposed site is sandwiched in **between two major roads of both national and local importance**, the M20 and A20. Both of which already cause significant noise pollution, air quality and traffic issues for the Ryarsh community.
8. Ryarsh and its residents have compelling first-hand experience of repeated **breaches of operational procedures** by sandpit operators and although the operators may subsequently be fined, they often continue to disregard restrictions to the detriment of residents.



Photo: February 2018 – Residents were left devastated when a large number of trees were completely removed along the borders of the M20, causing many to have sleepless nights from the increased noise levels. The proposed quarry site is adjacent to this section of the motorway, with the AONB to the right. Two Emergency Refuge Areas (ERA's) are currently under constructed either side of the M20 at this location, bordering site M8.

9. Residents in Ryarsh that live near the motorway are **already exposed to shockingly high levels of consistent noise pollution**. The Environmental Study Report, conducted by Jacobs Atkins for the M20 Smart Motorway Programme in February 2017, revealed that numerous properties are subject to daytime noise levels in excess of 70 decibels (dB). These noise measurements were taken prior to the extensive tree removal which provided a natural sound buffer. The World Health Organization and the European Environment Agency report that anything above 55dB severely impacts health and wellbeing. Areas either side of Roughetts Road overbridge are also identified by the Department for Environment, Food & Rural Affairs (DEFRA) as Noise Important Areas. A quarry within the boundaries outlined by site M8 would expose these same residents to additional noise pollution and disruption.

The readings show an average decibel reading at Roughetts Row of 73dB over an

18-hour period. It also details that Roughetts Road on the coast bound carriageway endures 76dB on average over an 18-hour period.

The European Environment Agency when quoting the World Health Organization, state that *“During the night, high outdoor noise levels can cause sleep disturbance, such as body movements and wakening, starting at levels below 40dB, and with effects on the cardiovascular system that become apparent above 55dB. All these impacts can contribute to premature mortality”*.

Approving a noisy development such as a quarry, knowing that residents in proximity of both the M20 and the proposed M8 site are already blighted by noise above and beyond acceptable levels, would be considered negligent.

10. The road bordering the proposed site, namely **Roughetts Road, is narrow**. Lorries will have little option but to mount the pavement. **Access onto the A20 is uphill with heavy lorries accessing from a standing start**. Joining the A20 traffic under these circumstances is fraught with difficulty, especially in the darker winter months – see recent incident below:
 - a. 20 September 2018 – A20/Hawley Drive – Serious road traffic collision causing 2-hour delay.



Photo: 20 September 2018 - A20 / Hawley Drive accident



Photo: July 2018 – Ryarsh resident captures the moment three articulated lorries encountered another travelling in the opposite direction on the narrow roads of Workhouse Road and Park Farm Road.

11. There is already **substantial traffic pressure** on the surrounding area with the dramatic increase of large, heavy vehicles. With the recent approval of a refrigeration unit on Birling Road, additional HGV's are already accessing our local small roads.

12. The proposed site has **prevailing south-westerly winds and is positioned on higher ground** – the noise and air pollution, including silica dust, would be blown across the community, including Ryarsh Primary School, Ryarsh Park and Leybourne Chase. In the absence of baseline dust measurements the photo on the right provides evidence as to the amount of detectable pollution that is currently airborne in and around site M8. This vehicle pictured was parked on the boundary of the proposed site for one week.

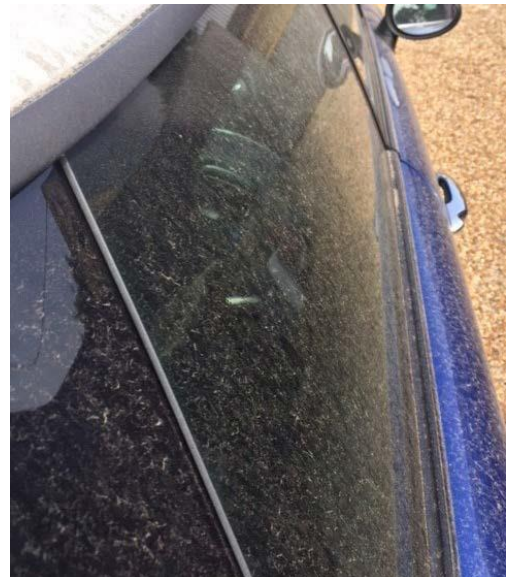


Photo: July 2018 - Layer of dust adhered to a car parked for one week on the boundary of the proposed site.



Photos: May 2018 - Resident encounters multiple quarry vehicles along the narrow lane of Woodgate Road and Trottiscliffe Road with dust being made airborne and taken by the wind. This is now a regular occurrence.

13. It is possible that the community is already impacted by pollution from the M20 and a new proposed quarry would only exacerbate this. As advised by Professor Frank Kelly, of King's College London, the Ryarsh Protection Group requested Kent County Council to undertake baseline particulate pollution measurements to establish the current ambient particulate matter (PM) concentrations in the community. If they are near any of the World Health Organization recommended limits, then the likelihood that the increased dust load from the quarry activity and/or lorry emissions transiting to, and from the quarry will push the particulate matter concentrations above these limit values.

At this time, the RPG have not received an update from Kent County Council on this subject – which was requested 9 April 2018.



Photo: May 2018 – Ancient trees and woodland are located within the proposed quarry boundaries

14. The quarry would remove key public rights of way, restricting access to and between the Kent Downs and the ancient woodland, 'The Roughetts'. These are precious amenities that residents and visitors rely on as the only walking routes linking the communities of Addington, Ryarsh, Ryarsh Park, Birling, Leybourne Chase and into West Malling. Ramblers, dog walkers and the like, will be forced to go elsewhere to enjoy open green landscape and to exercise and relax near their homes. This would lead to more car journeys, compounding stress for residents and visitors. These footpaths and the amenity they provide will be lost forever.

15. Ancient woodland and 'The Roughetts' are within the proposed quarry boundaries. The quarry would remove the opportunity to visit the untouched land and woodland. **This land would never be the same again.**

16. Additional **ancient trees** are located within the proposed site.
17. The proposed site and areas surrounding it are home to an **abundance of wildlife** such as species of newts, bats and owls, dormouse and buzzards. Sightings of deer and wild boar on the site have also been reported.
18. Disturbance of the untouched land could **contaminate the aquifer**. Local water flows into the brook close to the site which could impact wildlife and biodiversity downstream. Widely documented research on silica sand found in streams and brooks showed that it has the potential to kill marine wildlife.
19. **Aquifer and water table levels are high in this location**. Extracted sand may require processing on site – additional machinery required, would generate even more noise, dust, vibration, light and disruption.



Photo: April 2018 - The burst brook positioned south of site M8



Photo: April 2018 - Stagnant water on site M8

20. **Commitments made to our communities** during the original planning stages are **often amended and are perceived to favour the site operator**. The nearby Wrotham Quarry which is similar to the M8 proposal, has recently expanded their boundary, including going under roadways in order to obtain greater access. Another nearby quarry is currently being targeted for future housing under the Borough Green Garden City project, instead of the open green space restoration that was originally promised.

21. The cumulative impact and **disproportionate burden placed on the community from previous and current developments** is unreasonable, such as: quarries, landfills, the brickworks factory, creation of the M20 (subsequently splitting the village and community), the collapse of East Street bridge and delay of its reinstatement, the current M20 Smart Motorway construction works with two emergency refuge areas, a local existing quarry 800 metres away and other nearby developments. Ryarsh and the wider community should not have to suffer from what is clearly disproportionate burden.

22. **The site is close to historically significant buildings** including St. Martins Church which dates back to the Norman era, listed buildings and the home where a translator of the Doomsday Book once lived.

23. Ryarsh is a **unique Kent village and has a hard working, vibrant community whose residents contribute greatly to its success**, a fact Kent County Council can be proud of. The village:

- a. Dates back to Saxon times.
- b. Residents understand and respect the M20 that splits their village.
- c. It has embraced two new developments, Ryarsh Park and Leybourne Chase, which are intrinsically linked to the ancient parts of the village via the public footpaths and roads.
- d. Ryarsh residents contribute hugely to the wider economy.



Photo: March 2018 – St. Martin's Church in Ryarsh located just a few hundred metres from the proposed site. Public footpaths link the surrounding villages and the new developments; Ryarsh Park and Leybourne Chase, to the church.



Photo: February 2018 – Public footpath MR152 from Roughetts Road. This section of the footpath links Birling, Ryarsh, Ryarsh Park, Leybourne Chase, passed St. Martin's Church with the neighbouring village of Addington and beyond. Development of site M8 would bring an end to the connection between these communities.



Photo: February 2018 – The community congregated to demonstrate their firm opposition to the M8 proposal

24. **Unanimous objection to the proposed M8 development** has been lodged with Kent County Council by all local parishes including, Ryarsh Parish Council, Birling Parish Council, Addington Parish Council and Leybourne Parish Council, and over 1266 individual objections. Ryarsh residents have made clear their total objection to this quarry by their determination in writing letters of objection and organising public events designed to demonstrate their opposition to having a quarry in the midst of their community.

25. Thoroughly detailed letter of **response from our MP Tom Tugendhat urging KCC to reconsider** the proposal and the impact on the wider community:

“With a long history of quarrying in Ryarsh, I would be grateful if Kent County Council would look closely at the numerous issues which come into question regarding this site”

“I cannot emphasise enough how this issue has engaged the community and I hope that this will be recognised by Kent County Council”

– Tom Tugendhat MP
7 February 2018

26. The Ryarsh Protection Group believe the **environmental reports** produced by the site’s promotor have not been executed correctly and are therefore **not fit for purpose**:

- a. The mats supposedly for the use of carrying out fauna investigations, were discovered draped over fences around the site.
- b. The noise monitoring survey conducted by contractors on behalf of the sandpit promotor was also flawed. MP Tom Tugendhat requested assurance that Kent County Council would not apply great weight to the results:



Photo: July 2018 – Resident encountered the fauna recording equipment hanging over fencing

“I am concerned that this equipment, however well intentioned, will not be able to provide a fair analysis of the noise situation in Ryarsh and shall provide evidence which can be easily challenged should KCC look to use it as part of its evidence base. I’d like your assurance in this regard that you won’t be applying great weight to its results”

– Tom Tugendhat MP
3 August
2018

27. Kent has an abundance of sand according to KCC. The RPG **encourage KCC to seek alternative sites, away from homes, schools and village communities.**

28. **Ryarsh is being sacrificed** because unlike other parts of the south east, such as Sussex and Surry, Kent does not enjoy national park status even though sand baring typography is similar.

Site	Estimated Workable Reserve
Chapel Farm, Lenham	4mt
West Malling Sandpit, Ryarsh	3.1mt

2.12 These sites would provide a surplus of around 5mt over the Plan period. This 'surplus' is necessary as it would give flexibility to account for: sites not coming forward as anticipated; yields being lower than anticipated, or demand increasing over the Plan period. Furthermore, the adopted KMWLP recognises that soft sand supplies in Kent are relatively abundant, whereas they are scarce in other parts of the south east of England⁵ and so additional reserves may help meet increasing demand in other areas and potential for export of materials to serve wider soft sand markets. This may become increasingly the case in the South East as soft sand resources are limited in distribution and potentially constrained by protective designations, such as National Parks.

Image: Point 2.12 of Kent County Council's Minerals and Waste Local Plan indicating Ryarsh would "provide a surplus".

29. **A quarry would provide no benefits**, economic or otherwise, to the community - the development would only benefit the quarry operator and two land owners at the expense of residents and the local community.

30. The recent introduction of the **M20 Smart Motorway Programme has occurred due to the increased quantity of traffic** using this major road. The scheme will result in a permanent running lane being created from the current hard shoulder on either side. **Ongoing maintenance will be required on the M20**, adjacent to the proposed M8 site. This maintenance would be taking place throughout the life of the proposal. These simultaneous activities would place significant pressure on the rural area.

31. Residents are extremely concerned about **increased pollution from slow-moving vehicles**. The World Health Organization (WHO) has placed outdoor air pollution among the top ten health risks faced by humans, linking with seven million premature deaths a year. WHO classified outdoor air pollution as being carcinogenetic to humans in 2013, as smoking was in 1985. Pollution levels inside

cars were found to be up to 40% higher while in traffic jams or at a red traffic light compared to free-flowing traffic conditions.

Additionally, residents are concerned with **traffic delays** and **congestion on local infrastructure**, especially roads being unable to cope with current demand that impact home and business life. Recent examples include:

- a. 4 October 2018 – M20 J4-5 – Serious road traffic collision causing 2-hour+ delay. Caused traffic to use surrounding roads including A20 and local roads such as Roughetts Road and Offham Road.
- b. Potential risk of increased M20 congestion and pollution resulting from Operation Brock (M26), Operation Stack (M20) and Brexit.



Photo: 4 October 2018 – View of Offham Road / A20 junction traffic build up from M20 accident



Photo: 4 October 2018 - A20 / Roughetts Road congestion causing two hour + delay



Photo: 4 October 2018 – View of M20 gridlock from Roughetts Road overbridge. Disruption causes congestion on A20 & surrounding roads

32. A recent article published on the front-page of **The Times**, **19 September 2018** - ***“Living in a polluted area increases the risk of dementia by up to 40 per cent, the first British study of its kind has found. Polluted air is known to cause lung and heart problems as tiny soot particles and chemicals such as nitrogen dioxide (NO₂) pass deep into the body. Research is also increasingly linking traffic fumes to thinking problems. Last year a Canadian study of 2.2 million people concluded that those who lived continuously near a busy road were 12 per cent more likely to get dementia. Professor Frank Kelly, of King’s College London, senior author of the study said it was “very likely that high air pollution alone does not cause dementia but rather it increases the risk of an individual developing it”.***



Photo: February 2018 – Local children created a banner using their own initiative to display their disapproval to the proposal as it is their future

CONCLUSION

The Ryarsh Protection Group appreciate Kent County Council’s obligation to provide for a ‘need for sand’ within the local plan. We urge KCC to seek sites away from homes, schools and public buildings with reduced impact on residents and businesses.

Ryarsh and its neighbouring areas support an incredible community, which over the years has embraced significant change; most recently through new developments in Ryarsh Park, Leybourne Chase and the M20.

The cumulative impact of previous works has seen a disproportionate burden placed on the community. The proposed location of the M8 quarry in the immediate vicinity of homes, schools and public buildings would have a serious and detrimental effect on the everyday

lives of residents and visitors, impacting their health and wellbeing. As Professor Dame Sally Davies, England's Chief Medical Officer, highlighted in her report of March 2018 "*People are being exposed to a daily cocktail of pollution that may be having a significant impact on their health*".

The project would further destroy the openness of the landscape, in close proximity to the Kent Downs, Area of Outstanding Natural Beauty. Access to this amenity, including public rights of way, would be removed and lost forever.

We respectfully request that decision makers within Kent County Council consider the enormous, negative effect this project will have on our village and surrounding communities whilst noting the universal condemnation our residents have submitted in objection to this proposal.

October 2018



Appendix 4 – Natural England’s Advice to KCC - Lydd Quarry

(M2)

Date: 10 October 2018
Our ref: DAS/2340/255496

Dear Alice Short

Discretionary Advice Service (Charged Advice) Contract reference: 3890 Development proposal and location: Extension of Lydd Quarry, Lydd, Kent

Thank you for seeking advice under Natural England’s Discretionary Advice Service for the above proposal. Kent County Council has sought advice on:

- Advice in relation to impacts and mitigation measures that may result from the proposed allocation of Lydd Quarry within the partial review of the Kent Minerals and Waste Plan to the Dungeness, Romney Marsh and Rye Bay Site of Special Scientific Interest (SSSI), Special Protection Area (SPA) and Wetland of International Importance under the Ramsar Convention (Ramsar Site)
- In addition, during the meeting, it was agreed that this advice note would also include initial advice on the scope of the Appropriate Assessment to accompany the Minerals Plan submission.

This advice is provided in accordance with the Quotation dated 15 August 2018 which was signed on the 10 September 2018. The advice within this letter is based upon the following:

- Meeting with Alice Short and Bryan Geake (Kent County Council), Ian Blake (BPP Consulting), Rachel Barker (Ecus Ltd), Jo Dear and Sean Hanna (Natural England) on the 19 September 2018
- Preliminary Assessment of Potential Hydrogeological and Hydrological Impacts Report (prepared by SLR dated September 2018)
- An outline written scheme of investigation for a programme of geoarchaeological and geomorphological work prior to and during quarry operations at Lydd Quarry, Kent (prepared by Archaeology South East dated September 2018)
- Email from Rachel Barker (Ecus Ltd dated 20 September 2018)
- Email from Bryan Geake of Kent County Council dated 25 September 2018

Impacts to the designated sites

I understand from Bryan Geake’s email dated 25 September that the Council has a 7.8 year landbank of sand and shingle which exceeds the seven year minimum required by the National Planning Policy Framework (NPPF). This email also highlighted that in addition to this 7.8 year supply, there are ‘others [sites] (Lydd being one of them) in the pipeline as potentially acceptable sites’.

Paragraph 204(f) of the NPPF requires minerals plans to:

‘set out criteria or requirements to ensure that permitted and proposed operations do not have unacceptable adverse impacts on the natural and historic environment or human health, taking into account the cumulative effects of multiple impacts from individual sites and/or a number of sites in a locality’

In addition, Paragraph 205(b) of the NPPF states minerals authorities when considering applications should

‘ensure that there are no unacceptable adverse impacts on the natural and historic environment, human health or aviation safety, and take into account the cumulative effect of multiple impacts from individual sites and/or from a number of sites in a locality’

The NPPF also states in Paragraph 175 that

‘When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest’

The Spatial Vision for Minerals Planning in Kent detailed within the adopted Kent Minerals and Waste Plan 2013-30 states that:

‘Throughout the plan period 2013-2030, minerals and waste development will:... Embrace the naturally and historically rich and sensitive environment of the plan area and ensure that it is conserved and enhanced for future generations to enjoy.’

The adopted Plan also states that:

‘Planning for minerals in Kent will: ... Facilitate the processing and use of secondary and recycled aggregates and become less reliant on land-won construction aggregates.’

As we discussed during our meeting, the extraction of minerals will result in the direct loss of the geomorphological interest from this area of the Dungeness, Romney Marsh and Rye Bay Site of Special Scientific Interest. Ditch and other wetland habitats from within the SSSI, SPA and Ramsar Site are also likely to be directly impacted as a result of this proposed minerals allocation (although understandably the detailed working proposals have yet to be finalised so the full extent of the impacts is not yet known). In addition to these direct impacts, based upon the best currently available information, there are potential indirect impacts to the wetland habitats surrounding the proposed allocation site from changes to the hydrology (including saline incursion), water quality and availability together with loss of supporting land for species associated with the SPA and Ramsar Site and the issue of disturbance are also likely to result from the proposal.

Given the significant direct and indirect impacts that this allocation would have for the designated sites, the Council needs to undertake a full and independent consideration of whether there are alternative sites or sources of material which will avoid or result in lesser environmental effects. As mentioned above the Council have confirmed that there are other sites in the pipeline in addition to Lydd Quarry, yet, no further details have been provided as to whether these are also being progressed or whether these would provide sufficient mineral resource for the lifespan of the Plan. I note that the Sustainability Appraisal¹ accompanying the adopted Minerals and Waste Plan confirms in Section 10.1.1 that ‘There is a widespread availability of alternatives to sharp sand and gravel in Kent including marine dredged aggregates and secondary/recycled aggregates’ suggesting that the allocation of Lydd Quarry is not necessary to maintain the mineral landbank; a

position that appears to also be supported in the email from Bryan Geake dated 25 September 2018.

The proposed allocation of Lydd Quarry would appear to be contrary to the NPPF since the Council's own documents confirm there are alternative sources to meet the demand. The allocation would also appear contrary to Policy CSM1 of the adopted Minerals and Waste Plan since Paragraph 177 of the NPPF confirms that 'the presumption in favour of sustainable development does not apply where development requiring appropriate assessment because of its potential impact on a habitats site is being planned or determined.' Policy CSM2 of the adopted plan also confirms that alternative sources will be able to meet the demand by stating that if additional sites are not brought forward 'Demand will instead be met from other sources, principally a combination of recycled and secondary aggregates, landings of MDA, blended materials and imports of crushed rock through wharves and railheads. The actual proportions will be decided by the market'.

During our recent meeting, you sought comments from Natural England on the report prepared by the site promoter, Brett Aggregates, on the needs and alternatives to the Lydd site being promoted. As Jo and I explained during the meeting, we consider the Council should undertake its own independent, impartial and comprehensive assessment of alternative sources of minerals as part of the Minerals Plan review and we would be pleased to provide advice on this once it is available. It appears from the information within the Sustainability Appraisal for the adopted Plan that much of this information may already be available. This assessment should include alternative land based sites and alternative sources such as recycled material and marine won material (in accordance with the approach detailed within Policy CSM2 of the adopted Plan). This assessment should include landscape, nature conservation and geological conservation interests in addition to the socio-economic impacts. Without such an assessment, the Minerals Plan may be unsound if it is not in accordance with the NPPF.

Mitigation measures

During our meeting, and the subsequent email from Bryan Geake of the 25 September, we discussed the 'mitigation' measures suggested by the site promoter for the geomorphological interest within the SSSI at Lydd Quarry. Given the permanent direct loss of the buried (and in part surface) geomorphology, the proposed 'mitigation' in the form of an investigation of deposits prior to extraction to me does not appear to be mitigation since it does not reduce the severity or impact of the mineral removal, it merely provides a limited record of the deposits and prevents any future study of the area.

The proposed geomorphological survey detailed within the outline written scheme of investigation appears similar to the approach undertaken for the previous extraction of minerals at Lydd Quarry. However, as Jo and I explained during our meeting, these previous phases had extant permission at the time the SSSI was notified. This current proposal does not benefit from any permission, allocation or safeguarding and as such the implications of the site allocation need to be fully considered in light of the impacts to the designated sites and the requirements of the NPPF. This geomorphological investigation proposed as 'mitigation' should very much be considered as a last option once all alternative sources of securing the mineral need have been fully exhausted in accordance with the 'avoid, mitigate, compensate' hierarchy of the NPPF and Policy CSM2 of the

¹ http://www.kent.gov.uk/data/assets/pdf_file/0016/15415/Kent-Minerals-and-Waste-Plan-2013-30-Sustainability-Appraisal.pdf

adopted Minerals and Waste Plan. Should the Council, having undertaken the assessment of alternative sources of material (and also undertaken its appropriate assessment in relation to the SAC, SPA and Ramsar Site), allocate the site and this is confirmed by the Plan Inspector, then it is likely Natural England would expect a detailed 'rescue and record' strategy to be secured. The detail of this would need to be agreed ahead of the mineral works commencing rather than at this

stage as advances in technology may provide new opportunities that are not currently available.

Notwithstanding the above, I would advise that the 'mitigation strategy' for the geomorphological interest within the SSSI should not be considered as a justification for allocating Lydd Quarry for mineral extraction when the Council's own documents supporting the adopted Minerals and Waste Plan and more recently the email from Bryan Geake confirm that there are alternative sources which avoid the direct impacts to the SSSI.

In addition to the concerns regarding the loss of the nationally important geomorphology from this proposed site, based upon the currently available information significant ecological impacts to the designated site are also likely to result. Such impacts may result from:

- Direct loss of habitat from the SPA and Ramsar Site from the allocations around Lydd town
- Changes to the hydrology of the wetlands within the SSSI, SPA and Ramsar Site as a result of changes in land form and/or dewatering activities which could have implications for the availability of water within the ditches and other waterbodies, including low lying ground prone to flooding in winter within the designated sites
- Changes to the salinity of water bodies as a result of altered hydrological regimes
- Impacts to species associated with the SSSI, SAC, SPA and Ramsar Site as a result of direct habitat loss, changes to hydrology and salinity
- Direct and indirect impacts to land supporting species associated with the SPA and Ramsar Site which are out with the boundary of the sites (often referred to as supporting habitat or functionally linked land)

Scope of the appropriate assessment

Following our meeting on the 19 September 2018, Rachel Barker kindly sent through a proposed scope of the appropriate assessment to accompany the formal minerals plan consultation. Given the potential for direct and indirect impacts to the SPA, SAC and Ramsar Site the allocation will result in a likely significant effect and as such an appropriate assessment of the plan will be required. In my opinion, the scope of the broad scope of appropriate assessment proposed by Ecus Ltd in their email of the 20 September appears to be acceptable. I would however recommend that additional considerations should also be scoped in - for ease I have copied the scope recommended

by Ecus Ltd below and included my suggested additions in italics.

Description of designated sites screened in for LSE as a result of Lydd Quarry and Allens Bank:

- Dungeness, Romney Marsh and Rye Bay Special Protection Area (SPA) and Wetland of International Importance under the Ramsar Convention (Ramsar Site)
- Dungeness Special Area of Conservation (SAC)

Description of proposed/likely activities at Lydd Quarry and Allens Bank:

- Tonnage and area (m²) of extraction and likely habitats at these areas (link to habitats and species below)
- De-watering process and footprint (scale, timing and duration)
- Wet-working process and footprint (scale, timing and duration)
- Access to and from the Areas and likely number of movements
- Lighting (if any)
- Anticipated noise levels
- Description of characteristics of any other existing/proposed activities that could result in in-combination (cumulative) effects on the designated sites (e.g. Little Cheyney Court windfarm). *I would also recommend that plans and projects that the Environment Agency are implementing should be considered along with the expansion of Lydd Airport (which has been consented but not implemented) as part of the in-combination assessment.*

Additional activities that I would recommend are considered as part of the assessment are:

- *Impacts from any additional infrastructure requirements to facilitate the minerals extraction;*

- for example additional or modified haul routes, discharge pipelines and conveyor belts*
- *Site decommissioning and restoration*

Information about the features of the designated sites:

- Baseline ecology (habitats and species) recorded at and surrounding Lydd Quarry and Allens Bank Areas (including designated features of prostrate broom and blackthorn at Dungeness SAC)
- Key attributes of these habitats and species
- Structure, function and supporting processes of habitats (including those which qualifying species rely on)
- Vulnerability/sensitivity of features and any seasonal influences (link to below if necessary)

Description of potential impacts:

- *Direct habitat loss - I would advise this should include habitat within the SPA and Ramsar Site and land which SPA and Ramsar Site species rely on for feeding and roosting which may be outwith the designated site boundaries (often referred to as supporting habitat or functionally linked land)*
- *Direct and indirect habitat changes (e.g. as a result of hydrological, salinity and geological changes along with habitat connectivity/severance impacts.)*
- *Disturbance (visual/noise) to species*
- *Barrier to species movement*
- *Introduction of invasive non-native species*
- *Air and water pollution*
- *Implications of the above habitat loss and alterations for all of the species of interest within the SPA, SAC and Ramsar Site including birds, aquatic plants and invertebrates, prostrate broom, blackthorn and water voles*

Description of possible mitigation measures and how these will be implemented and monitored:

- *E.g. details of the avoidance measures and consideration of alternative sources of securing the County's mineral needs such as alternative sites or off-shore resources.*
- *E.g. wet working on all areas*
- *E.g. discharging water to lakes to retain water levels*
- *E.g. screens around works to minimise disturbance*
- *E.g. Restrictions to working times – dawn/dusk, seasonal restrictions on working, ensuring water levels are maintained across the marsh throughout the working*

Other advice

There are also other possible impacts resulting from this proposal that you should consider when assessing the implications of this allocation on the natural environment, in accordance with the NPPF and Policy CSM1 of the adopted Minerals and Waste Plan. The proposal may have implications for local landscape along with protected and/or priority species and we recommend you consult your in-house specialists in relation to the potential impacts that may arise from the proposed site allocation at Lydd Quarry.

For clarification of any points in this letter, please contact Sean Hanna on 0208 0266 064 or by email to sean.hanna@naturalengland.org.uk. This letter concludes Natural England's Advice within the Quotation and Agreement dated 10 September 2018.

The advice provided in this letter has been through Natural England's Quality Assurance process

The advice provided within the Discretionary Advice Service is the professional advice of the Natural England adviser named below. It is the best advice that can be given based on the information provided so far. Its quality and detail is dependent upon the quality and depth of the information which has been provided. It does not constitute a statutory response or decision, which

will be made by Natural England acting corporately in its role as statutory consultee to the competent authority after an application has been submitted. The advice given is therefore not binding in any way and is provided without prejudice to the consideration of any statutory consultation response or decision which may be made by Natural England in due course. The final judgement on any proposals by Natural England is reserved until an application is made and will be made on the information then available, including any modifications to the proposal made after receipt of discretionary advice. All pre-application advice is subject to review and revision in the light of changes in relevant considerations, including changes in relation to the facts, scientific knowledge/evidence, policy, guidance or law. Natural England will not accept any liability for the accuracy, adequacy or completeness of, nor will any express or implied warranty be given for, the advice. This exclusion does not extend to any fraudulent misrepresentation made by or on behalf of Natural England.

Yours sincerely

Sean Hanna

Sean Hanna
Lead Adviser
Sussex and Kent Team

Appendix 5 - Alternative Supply of Aggregates and Socio-economic Considerations – Lydd Quarry (M2)

Alternative Supplies

Natural England (see Appendix 1 - letter dated 10th October ref. DAS/2340/255496) have raised the issue of a potential adverse impact (including direct and indirect in type) on the SPA/Ramsar, from loss of habitat (parcel 19) and essentially hydrological impacts. This requires the County Council (as a competent body) to consider alternatives to the landwon aggregate supply as part of the overall AA process, in accordance with the Habitat Regulations (stage 3: Habitat Regulations Assessment Handbook).

The matter was discussed with the site promoter and in response a report was submitted that has, from the perspective of the promoter, examined the potential for alternatives to further landwon extraction of aggregates at Lydd Quarry and Allens Bank. The report, entitled '*An examination of the viability of meeting the demand for Lydd sharp sand and gravel from alternative sources*' was prepared by Davies Planning in September 2018. It addresses the matter by covering the following areas:

- Current activities at Lydd Quarry, the nature of the aggregate deposit and other mineral products
- Other landwon resources as alternatives to continued Lydd production
- Potential for recycled aggregates to substitute landwon aggregate production at Lydd
- Potential for marine dredged aggregate to be a sustainable alternative source of supply utilising Kent, East Sussex and West Sussex importation points (wharves) and distribution (railheads and road network)
- Environmental and economic implications of using marine dredged materials
- Socioeconomic benefits of the continuation of quarrying operations into the promoted Option site Lydd Quarry and Allens bank (M2)

In light of the above points, the report concludes that though there is the alternative of marine dredged materials (given that further landwon resources are in general decline in Kent and elsewhere in the South East). However, the environmental impact of using the poorly distributed importation (wharf) points would have a unacceptable impact upon the economics of current supply (costs would increase to the end user); and that the increased carbon loading effect of having to transport the equivalent amount of material over greater distances would have a detrimental effect on the sustainability of supply. Also, the report pointed out that the site produces a number of minerals and mineral related products that are both increasingly scarce (the sharp sands and gravel that can be used in high specification concrete manufacture and beach replenishment at Dungeness) and that are unique to Lydd (brick mould facing sand and grinding cobbles).

The availability of a suitable landwon alternative resource to the Lydd material in the South East appears to be in decline. This is evidenced by the published Local Aggregate Assessment reports available from the web sites of the respective Mineral Planning Authorities in the region (as collated by the annual report produced by SEEAWP for the Ministry of Housing, Communities & Local Government (see link <https://www.gov.uk/government/collections/aggregates-working-parties-monitoring-reports>). The landwon alternative to continued Lydd extraction to maintain a steady and adequate supply may be unavailable. This may particularly be the case for the high quality 'flint' sands and gravel that have been the subject of extensive past mineral extraction operations in Kent's

principle river valleys. The upper Medway sandstone sand and gravels are deposits that are mineralogically distinct from the 'flint' type (such as the Taplow Formation in the River Darent valley) and though they may still be generally available as potential reserves, they are characterised as lower grade materials (being composed of Chalcedony and being angular to sub-angular in shape) and of less importance given their more restricted application in construction product specification. Although, it should be noted that the importance of the two types are not distinguished in the Kent Minerals and Waste Local Plan in Policy CSM 2.

With regard to the available marine resources, it would appear that the two materials (land-won storm beach sand and gravel and marine dredged sand and gravel) are essentially analogous, though it is possible that there are variations between materials from an ancient barrier (storm) beach shingle ridge complex (the promoted site material) and material from the marine sedimentary basin of the East English Channel and North Sea areas in terms of exact characteristics. Though this is not explored by the report. The materials are also in relative abundance, the Crown Estates stated in 2012 (to the then Mineral Sites Plan, Preferred Options Consultation May 2012) the following:

- *Over 900 million tonnes of marine sand and gravel (aggregate) has been dredged from offshore seabed over the last 50 years and at least 1,250 million tonnes is available for sustainable supply of construction aggregate over the next 50 years and beyond. Currently marine sand and gravel supply some 20% of the county's demand.*
- *The marine aggregate resource available in the East Coast, Thames Estuary and East English Channel areas and which are used to supply Kent wharves is 994 million tonnes of which 31.25 million tonnes is permitted for extraction per annum. Kent wharves only received some 1.3 million tonnes (4.2% of total permitted per annum) in 2010 but increased in 2011 with 1.55 million tonnes (5%). There is therefore a long term viable and sustainable supply of marine dredged aggregate both for construction uses and for direct beach nourishment by vessel delivery.*
- *The current rate of extraction by all companies to all marine aggregate wharves in the UK and on the European mainland is some 45% of the quantities permitted per annum thus reinforcing the sustainability and long term viability and requirement of marine aggregate wharves in Kent.*

Kent's wharves have 7.30mtpa overall importation capacity that is not being fully utilised (see published LAA2017 (see page 26, *Table 12: Total sales and Estimated Productive Capacity, 2016 (Million tonnes, Mt)* [to be updated by LAA2018]) with some 58% capacity remaining to be utilised. The Davies Planning report estimates that, given the poor distribution of wharves in Kent (significantly in the lower Thames reaches at Dartford, Gravesham and in Medway and elsewhere [e.g. Folkestone, Ridham and Whitstable]) and in East Sussex at Rye (limited capacity) Shoreham and Newhaven (non-operational aggregate terminal), for the same quantity of material currently being supplied to the Lydd market, wharf imported material substitution would result in an additional average of 30 HGV miles per tonne of material transported.

This would result in an additional 13-17,000 tonnes of carbon dioxide over the life of the promoted Lydd Quarry and Allen's Bank Option site. Also, additional costs (£150.00 per tonne) to the end user would be incurred due to the increased transportation. It is also contended that this situation would not be relieved by increased use of Kent's aggregate railheads as these are again limited in number, of low capacity and again poorly distributed overall (notable exception of Sevington at Ashford, though this is considered now unavailable for aggregate importation due to recent planning permission for Network Rail for rail track ballast importation). However, these matters have to be weighed against the need to satisfy the Appropriate Assessment tests of the consideration of the

availability of alternatives as set out in the Habitats Regulations Assessments Handbook; Section c.13 Alternative solutions, Part 10 states:

The alternative solutions should be financially, legally and technically feasible. An alternative should not be ruled out simply because it would incur greater inconvenience or cost. However, there will come a point where an alternative is so very expensive or technically or legally difficult, that it would be unreasonable to consider it a feasible alternative solution.

In terms of the assessment of alternatives, the materials that the promoter is claiming to be important are:

- sand and gravel,
- a specialist brick making sand and
- large cobbles stones.

The cobble stones are purportedly used as a grinding media and specialised construction projects are found both in marine deposits and in other localities extracting Storm Beach materials. They form some 1-2% of the overall deposit and are a marginal material in the commercial sense. Moreover, are a material that is an industrial, and not an aggregate mineral that requires to have landbanks maintained by site allocation in the Kent Mineral Sites Plan. Therefore, the consideration of alternatives is not relevant in this instance.

The specialist sand mineral described as unique to Lydd, is used in brick manufacture as a facing sand and does appear to be an important material. It reportedly has been used since the 1950's from the locality and is of a type that is not apparently readily substituted. However, while the Lydd deposit sands may be a source of suitable facing sand used in brick making, this is an industrial mineral application and thus not an aggregate mineral for which allocations in the Mineral Sites Plan are required. The consideration of alternatives is therefore not relevant in this instance.

The bulk of the resource available in the site as promoted are a sand and gravel aggregate suitable for high specification concrete production. Alternative supply is available in the form of other high quality 'flint' sands and gravel materials from the land. This is opposed to river terrace sand and gravel that often are more angular in shape, iron mineral stained, and have a lower tensile strength (given that they are mineralogically different than the 'flint' aggregates that have a purer quartz chemistry rather than a being Chalcedony in type, this being a mixture of two quartz polymorphs and are of lower strength). Making the material less suitable for high specification concrete production. The land based 'flint' sands and gravels are now, as has been stated above, of limited occurrence given the significant extraction of past decades. The River Darent valley in North Kent may be the last source of material that is comparable to the land-based Lydd sands and gravels.

The main alternative source of material found in marine sands and gravels that are present in significant quantity on the sea floor of the East English Channel and North Sea. The Crown Estate are responsible for licensing extraction from the sea bed in these areas and have stated "*1,250 million tonnes is available for sustainable supply of construction aggregate over the next 50 years and beyond*". Clearly, the materials are available as an alternative source of supply to meet objectively identified needs.

Sourcing increased importation into the Lydd market area (reportedly up to Bexhill in the west, Canterbury in the north and Dover in the east) would have to incur an average of another 30 HGV road miles per tonne of aggregate it is stated, due to the poor distribution of wharves in Kent and East Sussex in relation to the Lydd market area. This is expected to load the environment with

between 13-17,000 tonnes of carbon dioxide and increase costs by as much as £150.00 per 21 tonne delivered load. The contention being that though an alternative supply exists it is not a sustainable or economically viable alternative.

It is recognised that wharves and railhead importation is not evenly distributed around the county and also are not equal in their suitability and capacity (railheads) to take up the demand increases. Increased importation via the significant new facility at Newhaven (once access matters are addressed) and potentially from Kent's northerly situated wharves would cause effects as reportedly outlined by the promotor of the site. Though the adopted policy of the Kent Minerals and Waste Local Plan 2013-30 recognises that future land-won supply will not address all the identified need over the Plan period, and thus it is established in policy that the increased importation is part of Kent's future sustainable plan to maintain a steady and adequate supply of aggregates.

The issue with regard to the impacts (direct and indirect) on the SPA is that they remain essentially uncertain. The Habitat Regulations make it clear that if there are alternative solutions that would have a lesser effect or avoid an adverse effect on the integrity of the designated site, then that alternative should be pursued. Clearly, there is an alternative to the continuation of the Lydd supply of high-quality aggregates that essentially meets the test, as set out in the Habitats Regulations Assessments Handbook, Section c.13 Alternative solutions, Part 10:

The alternative solutions should be financially, legally and technically feasible. An alternative should not be ruled out simply because it would incur greater inconvenience or cost. However, there will come a point where an alternative is so very expensive or technically or legally difficult, that it would be unreasonable to consider it a feasible alternative solution.

The increased use of wharf capacity (that is lawfully available) can be achieved without any recourse to any tests of legality or technical assessment. With only around some 42% of the operating capacity of Kent wharves being taken up demonstrates that there is ample head room for expansion, to address the potential loss of the landwon Lydd produced material with a suitable alternative marine aggregate material. The impact on the wider environment (increased carbon loading) from increased use of importation is an understood position reflected in adopted Policy CSM 2 of the Kent Minerals and Waste Local Plan 2013-30. This policy makes clear that landwon resources are to be provided for, while resources allow. After which, importation substitution would increasingly occur. This position has been subject to Sustainability Appraisal and Independent Examination and has been found sound in Policy CSM 2. The increased costs associated with increased transportation are an inevitable consequence of this position, given established markets and the uneven distribution of importation points (wharves and railheads). Therefore, there is not an imperative need to allocate the site in accordance with Policy CSM 2 Supply of Land-won Minerals in Kent of the Kent Minerals and Waste Local Plan 2013-30.

Socio-economic benefits

In support of the allocation the promoter submitted a report¹⁸ setting out the socio-economic benefits of continued working of aggregates from Lydd and Allens Bank. Consideration of this matter is undertaken in the context of NPPF Part 6 section 8 that states:

'Planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development.'

¹⁸ Hatch Regeneris report of August 2018

The approach taken should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future. This is particularly important where Britain can be a global leader in driving innovation, and in areas with high levels of productivity, which should be able to capitalise on their performance and potential.'

Furthermore, NPPF policy (paragraph 175) on the protection of SSSIs states (with emphasis):

*“development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where **the benefits of the development in the location proposed** clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;”*

Therefore, the economic potential of the site has some bearing on its acceptability for allocation. The socio-economic benefits of the site in terms of its gross value addition (GVA) potential to the wider Lydd area have been assessed by engaged consultants (Hatch Regeneris). Their submitted report examines the headline economic benefits of the site by comparing the current GVA value to the locality of the site up to the end of the current reserve life (2 years) and projecting on until 2034, to coincide with the life of the extension area currently being promoted.

The model employed (by Hatch Regeneris) uses the national median wage of £28.8k (ONS data) and then uses a 55% multiplier on that wage level to create a GVA figure of £52.6k per employee that benefits the local economy. This concludes that the current reserves (being worked in East Sussex) will give a £2.8 million GVA to the overall locality. If the Kent promoted Option site (parcels 16-23) were to come forward, the effect would be a GVA of £44.8 million over 15 years to 2034.

The use of ONS statistics to determine local wages are not considered to be very representative of wages in the area. A breakdown of the current jobs employed (as given by the promoter both direct and indirect) and applying comparable age rates found in job advertisements as set out in the table below shows that the site produces an average (not median) wage of around about the £23.8k mark.

Jobs type Lydd Quarry	FTE (Full Time Equivalent) Posts	Salary in Pounds per annum
Manager	1	50K
Foreman	1	30K
Weighbridge clerk	1	15K
Fixed and mobile plan operatives	5	5x20K=100K
Contract earthmoving	1	20K
Maintenance	1	30K
Mechanical and electrical maintenance	1	30K
Company HGV divers	7	7x26K=182K

Contracted HGV drivers	2	2x26K=52K
Customer HGV drivers	2	2x26K=52K
Sub-total	22	531K
Ready-mix concrete Production		
Plant operative	1	25K
Truck drivers	2	2x26K=52K
Sub-total	3	77K
Aggregate Bagging Operation		
Bagging operatives	11	11x18K=180K
HGV drivers	8	8x26K=208K
Contracted HGV drivers	7	7x26K=182K
Customer HGV drivers	3	3x26K=78K
Sub-Total	29	648K
Total FTE employment	54	1286K divided 54 FTE gives 23.8K average salary

Using the consultant's £55% GVA multiple methodology this gives the following result;

GVA Based on Wages at 55%

	GB	Folkestone and Hythe
Annual by FTE	£52,217	£43,273
Annual at 54FTE	£2,819,742.55	£2,336,727.27
2 Year NPV at 3.5% DR	£5,356,649	£4,439,067
16 Year NPV at 3.5% DR	£34,102,296	£28,260.653

The adjusted GVA to the wider economy is considered to be more in the region of £28.3 million if the site extension areas, as promoted, were to gain planning permission and be implemented successfully. Not the £44.8 million as suggested by the Hatch Regeneris report. This also analysis did not look at the wider economy of the Folkestone and Hythe District in terms of its value to that economy. If this is done, the following becomes apparent:

- Folkestone and Hythe District has 48,000 jobs (includes self-employed and armed forces) 36,000 employed jobs 24,000 of which are full time
- 54 jobs as a percentage of just the full time (24k) available jobs is 0.225%, or lower if you compare to employed jobs at 0.15% and even lower when compared to all jobs.

Based on the Hatch Regeneris methodology for calculating GVA, every job produces the same, no matter the industry, so the % of GVA would be the same as the jobs. Giving the following tabulated data.

Annual GVA Folkestone and Hythe	
36,000 jobs	£1,557,818,182
54 additional jobs FTE	£2,336,727
As a %	0.15%

(based on £23,800 annual salary per FTE)

The 54 FTE direct and indirect jobs that would be supported by the site is equivalent to approximately 0.15% of the average GVA in the Folkestone and Hythe District. The data does not give a Lydd Town GVA figure as ONS employment data to this local level is unavailable.