amey consulting

Draft Sustainability Appraisal Report – Regulation 18 Consultation

Updates to the Kent Minerals Sites Plan

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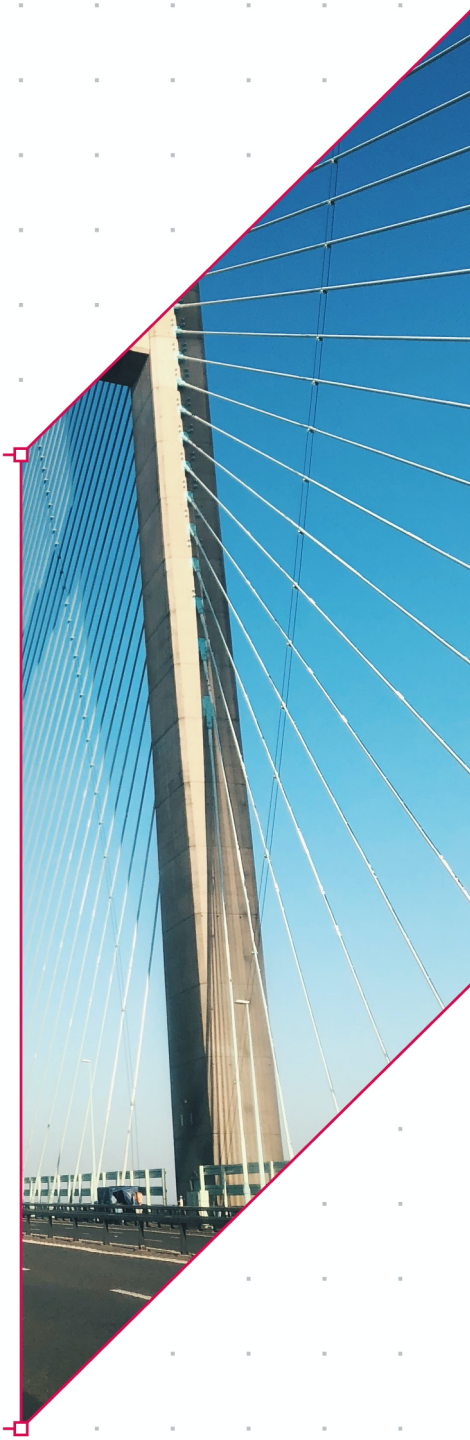

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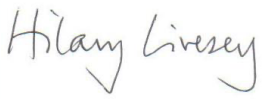
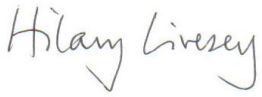
Rev 0 Reg 18 Consultation Draft for client comment	Name: Hilary Livesey Signature:  Date: 14/4/2023	Name: Jenefer Taylor Signature:  Date:	Name: Jenefer Taylor Signature:  Date:
Rev 1 Final for Consultation – Updated to include Client comments	Name: Hilary Livesey Signature:  Date: 9/5/23	Name: Jenefer Taylor Signature:  Date: 12/5/23	Name: Jenefer Taylor Signature:  Date: 12/5/23
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Executive Summary

Amey is commissioned to undertake Sustainability Appraisal (SA) in support of the preparation of an update to the Kent Mineral Sites Plan (MSP). This report presents the interim outcomes of this process up to Regulation 18 stage. The draft update to the MSP considers a new site nominated for allocation in the MSP for hard rock, alongside the three already allocated sites for soft sand and sharp sand and gravel.

Various environmental, social and economic issues have been identified through reviewing a wide variety of plans and strategies, collecting baseline information and identifying sustainability issues and problems. These issues have informed the development of the sustainability appraisal framework, which consists of a set of sustainable development policy objectives as set out in Table 1 of the report. The nominated new site and the existing sites allocated in the MSP as a whole have been appraised against this set of sustainability objectives. For the newly nominated site, the findings are as follows, while the findings for the MSP as a whole are set out in the main report which follows this summary.

Allocation of the nominated site would ensure the continued local supply of hard rock as a material to support economic growth, in particular via its use as a construction aggregate. It would provide support for local jobs within the mineral industry and help to avoid increased transport costs for hard rock. It would ensure the availability of Kentish ragstone for use in building restoration projects, which has qualities not available in stone from elsewhere.

There are some residential dwellings in proximity to the site nominated to the south and west of Hermitage Quarry and there is the potential for impacts on these nearby residential areas from dust, noise, blasting, visual intrusion and light. Adequate mitigation of the impacts must be incorporated into proposals for site operations in accordance with KMWLP Policy DM 11 Health and Amenity.

The southern part of the site is designated as Plantation on Ancient Woodland Soils (PAWS) which would be lost to development and potentially fragmenting the remaining woodland. The ancient woodland soil has biodiversity value. Conditions should be imposed on development so that: the sequence of working the site preserves connectivity within the woodland; translocation of important species is undertaken where possible; restoration of the site is to native deciduous woodland; and the existing soil is stockpiled and reused. Sufficient mitigation should be provided to avoid adverse impacts (if achievable) in accordance with the policies of the KMWLP. The agricultural land in the northern part of the site is grade 2 (very good). The soil from this area should be required to be stripped, stockpiled and used for restoration.

Public Right of Way path MR108 crosses the site and there are several tracks through Oaken Wood which may be used for recreation by walkers and riders. These would be subject to diversions which, in accordance with KMWLP policy, must preserve the connectivity of routes and made safe for all users.

The site is 3.9km from the Kent Downs AONB and it is likely that any visual impacts will be limited provided the site is worked sequentially with the existing operations. The Maidstone Landscape Character

Assessment[1] identifies Oaken Wood as a particular landscape and, although workings from extraction could be screened, this will not be a minor change and will not preserve the continuity of the feature, therefore adverse impacts are likely.

The 2022 planning permission imposes a daily maximum combined total of 800 HGV movements a day within a single calendar month, and no higher than 900 on any one day. If this is maintained over the life of the new site, then the proposal will not generate extra vehicle movements than the previous permission and impacts on the nearby AQMAs, the local road network and on greenhouse gas emissions are unlikely to increase. Any planning permission should require to be conditioned to similar levels of HGV movements.

There are listed buildings in proximity to the site. While it is possible that extraction at the site could have adverse impacts on one or more of these listed buildings, the separation distances would suggest that any impacts would be minor and any planning application should demonstrate that the impacts on landscape and on heritage assets in the vicinity of the nominated site can be appropriately mitigated, in accordance with KMWLP policy. There is some potential for Palaeolithic interest on the site and any planning application should be accompanied by an assessment of the archaeological value of the site and a proposed plan for preserving remains in situ where possible or removing and conserving remains offsite.

The site is underlain by principal and secondary bedrock and superficial aquifers. It is classed as having medium and medium-high groundwater vulnerability in the north of the site and high groundwater vulnerability in the south and east of the site and lies within a Source Protection Zone 3. There is the potential for impacts on water, although if conditions are imposed similar to the existing operations on the depth of working in relation to the water table, adverse impacts are unlikely.

The SA has made a number of recommendations for measures to prevent, reduce and as fully as possible offset any significant adverse effects of an updated MSP that included the nominated site.

The SA is required to appraise reasonable alternatives to an updated MSP that included the nominated site. No other site for the extraction of hard rock has been identified or was nominated during the Call for Sites undertaken in 2022, therefore there are no alternative sites within Kent that could be considered. However, an alternative could be not to allocate the nominated site but instead rely on imports of hard rock from outside of the county, which may come into Kent by sea, rail or road. Importation of hard rock to meet local needs will increase the need for the transport of mineral and associated emissions to air. If the mineral is transported by road, there is a greater likelihood of negative impacts on air quality and climate change, and negative impacts may be caused on congestion, noise and disturbance, depending on route and distance. The total distance transported is likely to lead to higher emissions overall. Importation of hard rock is also likely to have adverse economic impacts from increased transport costs and loss of jobs within Kent. Kentish ragstone would not be available for use in heritage restoration projects, therefore adverse impacts on the built historic environment are likely.

[1] Maidstone Landscape Character Assessment, Maidstone Borough Council and Jacobs, March 2012 amended July 2013

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1. Non-Technical Summary

1.1. Background

Amey is commissioned to undertake Sustainability Appraisal (SA) in support of the preparation of updates to the Kent Minerals Sites Plan (MSP). This report presents the interim outcomes of this process up to Regulation 18 stage. SA is a mechanism for considering and communicating the likely effects of a draft plan, and alternatives, with a view to avoiding and mitigating adverse effects and maximising positives

1.2. What is the Plan seeking to achieve?

The MSP is a land use plan produced by Kent County Council which identifies and allocates mineral sites within the county for the working and winning of minerals. Three sites are currently allocated within the adopted MSP for soft sand and sharp sand and gravel.

The main objective of the MSP is to ensure that Kent has enough permitted aggregate mineral reserves over the plan period (until 2039) and beyond to meet plan making requirements, which is 7 years for sand and gravel and 10 years for hard (crushed) rock.

The Kent Minerals and Waste Local Plan (KMWLP) was adopted in July 2016 and sets out the vision and objectives for Kent's minerals supply and waste management capacity from 2013 to 2030. The KMWLP did not allocate specific sites suitable for minerals and waste development except for two strategic sites - one for cement production (and related mineral reserves) at Holborough in the Medway Valley and one for hazardous waste disposal at Norwood Quarry on the Isle of Sheppey. The KMWLP identifies that the specific sites for minerals developments would be set out in the separate MSP.

In 2021, Kent County Council (KCC) completed a five year review of the KMWLP. This five year review identified the need for updates to the KMWLP including a change to the timeframe covered by the KMWLP, from 2024 to 2039 (currently 2013-30). It has become clear that, with this extended timeframe, there are not sufficient permitted reserves in the adopted Mineral Sites Plan[2] to maintain a 10 year landbank[3] for hard rock, as required by national policy, and there is therefore a need to identify new suitable reserves of hard rock in the form of one or more additional site allocations in the Mineral Sites Plan. A Call for Sites was therefore undertaken in October 2022, which resulted in an additional site nominated by the site promoter for inclusion in the MSP - Land to the South and West of Hermitage Quarry.

1.3. What's the situation now and how would it change without the plan (sustainability 'baseline')?

[2] Mineral Sites Plan, Kent County Council, September 2020
[3] A landbank is a stock of mineral reserves with planning permission for their winning and working.

The following is a summary of the sustainability baseline characteristics in Kent

Environmental baseline

- The amount of residual waste collected per household in Kent has generally fallen in recent years, to 554kg in 2021/22. 44% of household waste was reused, recycled or composted. Less than 1.5% is landfilled. Most of the remainder is incinerated with energy recovery.
- Some 7 million tonnes of waste of all kinds (the majority being construction and demolition waste) were reported as being managed at Kent waste management facilities in 2021. This compares with around 1.85 million tonnes of Kent waste managed outside the county. However, this export is more than offset by imports, so taking a simple balance, Kent remains net self-sufficient. Of the imports, just under 360,000 tonnes came from London, of which 126,000 tonnes was managed by Energy from Waste, and around 500 tonnes to non-inert landfill. 224,000 tonnes were managed at/by inert landfill/permanent deposit to land.
- Construction aggregates (sand, gravel and ragstone (a type of hard rock)) are the main types of economically important minerals extracted in Kent at this time, although brickearth (for stock brick manufacture), clay (for tile manufacture and engineering clay) and chalk (for engineering and agricultural lime applications) is also extracted. This is supplemented with imports and recycled aggregates.
- Kent is considered to be one the UK's most wildlife-rich counties. This is a result of its varied geology, long coastline, landscape history and southerly location / proximity to mainland Europe.
- Natura 2000 habitat is concentrated around the coast, particularly around the Thames Gateway (much within Medway UA), the Isle of Thanet, the Stour Estuary and Dungeness. Sites of Special Scientific Interest (SSSI) cover 8.5% of the county. The county contains c.11% of England's ancient woodland.
- The Thames Gateway is also acknowledged for its national importance due to 'brownfield' biodiversity.
- The last century has seen major losses and declines of species within Kent. Amongst the most important drivers of biodiversity loss in Kent are: the direct loss of land of value to wildlife to built-development or intensive farming, which has reduced and fragmented populations; and the effects of climate change.
- Kent is considered to be the most at risk lead local flood authority in England. Flooding has a significant impact on residents and the economy, with such effects predicted to worsen due to climate change.
- Since 2006 there has been a steady reduction in carbon dioxide emissions, to 4.6 tonnes per capita in 2019. This is slightly lower than national emission levels.

- In 2017 it is estimated that 922 early deaths occurred as a result of PM2.5 air pollution across Kent & Medway.
- Kent has the highest number of listed buildings in the South East, which is second only to the South West for numbers at regional level.
- The Kent Downs AONB covers nearly a quarter of the County, whilst the High Weald AONB is shared with East Sussex.
- Green Belt comprises the majority of Sevenoaks, Tonbridge and Malling and Gravesham Districts, as well as a proportion of Tunbridge Wells and Dartford Boroughs and a small part of Maidstone Borough.
- There are relatively extensive areas of high quality (grade one) agricultural land in Kent. This land tends to be concentrated in the north of the county, running in a band from Gillingham in the west through to Deal in the east. A pocket of high quality agricultural land can also be found in the area surrounding New Romney.
- Road traffic has grown fairly steadily over the decade from 2011, apart from 2020 when COVID-19 particularly affected car traffic. The effect on LGVs and HGVs was less marked, although still showed a decrease. Kent is a major gateway for the movement of international freight through the Channel Tunnel, the ports of Dover, Ramsgate and Sheerness. Road haulage is the dominant means of transport in this sector.
- In Kent there are many catchments where there is little or no water available for abstraction during dry periods. Pressures are particularly notable in Kent as it is one of the driest parts of England and Wales, coupled with high population density and household water use. Over the next few decades, there will be increasing pressures from the rising population and associated development. Looking further ahead, climate change could have a major impact on the water that will be available for consumption.

Social baseline

- Kent had an estimated population of 1,589,100 in mid-2020. By 2032, the population of Kent is projected to increase to 1,724,263, an increase of c. 8%.
- Although Kent is ranked within the least deprived 50% of upper-tier local authorities in England for 4 out of 5 summary measures of the IMD2019, significant areas within Kent are amongst England's most deprived 20% and levels of deprivation have increased in nine out of 12 local authorities in Kent.
- Life expectancy is 9 years lower for men and 6 years lower for women in the most deprived populations in Kent compared to the least deprived populations.

- Early death rates from cancer, heart disease and stroke have fallen and are better than the England average. A quarter of children aged 4-5 are classified as being obese, higher than the average for England. However, estimated levels of adult obesity are similar to the England average.
- Climate change projections highlight an increase in risk to people from flooding and hotter, drier summers leading to public health risks.

Economic baseline

- In 2018, the gross disposable household income in Kent was £22,164 per resident, 4.4% above the national average.
- Between 2010 and 2020, the number of active enterprises grew by 25.8%, to 70,815, which is below the national average of 27.7% growth.
- The overall employment rate in Kent has risen since the KMWLP was adopted, from 73.8% in 2016 to 78.4% in 2021.
- Apart from a slight decline in 2008-2009, GVA per head in Kent and Medway has risen steadily in the 21st century. In 2019 it was £24,877 per head, up from £14,029 in 2000, a rise of 77.3%. However, per capita GVA is lower than for the South East as a whole and lower than for England.
- The largest sector for employment is wholesale and retail trade at 17.6%, followed by human health and social work at 13.3% and education at 9.6%. The distribution sector generated the highest gross value added in Kent, a fifth of the total.

1.4. How would the baseline change without an updated MSP?

There is a degree of uncertainty about how the baseline might change without the adoption of an MSP updated to include the nominated site. Mineral sites will still come forward for development and these will be required to comply with the development management policies of the KMWLP. This includes policies on the protection and enhancement of: biodiversity value, landscape, Green Belt, heritage assets, the water environment, health and amenity (including air quality) and transportation. Long term trends in environmental quality are likely to continue.

However, without an MSP updated to include the nominated site there will be less certainty that Kent would be able to provide enough hard rock to support the expected future demand for minerals from construction and industry, particularly for the restoration of historic buildings. In such an event, there would be a need to source minerals from elsewhere. This may mean importing minerals from other parts of the country and beyond, which will have adverse effects on transport networks and air quality and may be difficult to blend in with existing Kentish stone in buildings. It is unlikely that secondary and recycled aggregates or marine dredged aggregates would meet the specification required.

Without an MSP updated to include the nominated site, imports from other parts of the country will be required. This is likely to lead to increased carbon dioxide emissions associated with mineral transport and associated risks to people and communities.

The social baseline is unlikely to be affected without the adoption of an MSP updated to include the nominated site. Population, levels of deprivation and health are unlikely to be significantly different with or without such an updated MSP, although jobs will be lost at the existing operational quarry when the permitted resource is exhausted.

1.5. Characteristics of Areas Likely to be Significantly Affected

The nominated extension to Hermitage Quarry is on land designated as either grade 2 agricultural land (very good) or Plantation on Ancient Woodland Soils (PAWS). Some of the land is also designated as a Local Wildlife Site, some contains biodiversity priority habitats and some has local landscape significance. It is underlain by aquifers and has groundwater vulnerability, but low flood risk. There are some residential dwellings in proximity to the site and several listed buildings, and there may be below-ground palaeolithic interest. There is a Public Right of Way that crosses the site, and it is adjacent to a SSSI of geomorphological importance. Three AQMAs are fairly close to the site.

Site M3 (Chapel Farm) is a previously unworked site rather than an extension to an existing site, situated in countryside to the south east of Lenham between junctions 8 and 9 of the M20. The site is an area of open landscape rising from Lenham Heath Road towards the A20 and is within the setting of the Kent Downs AONB. The site is grade 2 agricultural land and is adjacent to ancient woodland, priority habitats with notable species, and two Local Wildlife Sites. Footpaths cross the site. There are a small number of residential dwellings and listed buildings in proximity to the site. The site overlies an aquifer and is partly in a Source Protection Zone 3 for a public water abstraction borehole. It also overlies a length of the River Stour. Sewerage infrastructure crosses the site, and a wastewater treatment works is adjacent. Any planning application must be accompanied by adequate proposals to show the sewerage infrastructure will not be adversely affected.

Site M10 (Moat Farm) is an extension to existing operations situated in countryside to the north of Five Oak Green near Tonbridge and the River Medway. It is predominantly arable fields (predominantly grade 3b) surrounded by hedgerows and ditches, potentially with notable species and with an area of ancient woodland to the north of the site. Footpaths cross the site and there is a residential property near the site. It is located in Green Belt and an area of flood risk. The site overlies an aquifer and lies partially within a groundwater source protection zone. The Alder Stream and smaller ditches run through the site.

Site M13 (Stonecastle Farm Quarry Extension) is in countryside to the north west of Five Oak Green near Tonbridge, adjacent to the River Medway. It is a large arable field (predominantly grade 3b) with hedgerows within and surrounding the site, adjacent to a Local Wildlife Site and ancient woodland. There are areas of biodiversity priority habitat within and adjacent to the site which have the potential to contain

notable species. A public right of way runs near to the site. The site is within the Green Belt and an area of flood risk and extends into groundwater source protection zones. There is a listed building near to the site access, and a low potential for archaeological or other historic remains onsite.

1.6. Areas of Particular Environmental Importance

Kent contains a number of designated sites of international nature conservation importance. In addition, there are further sites outside Kent but within 10km of the county boundary. There are two sites that are within 10km of the nominated additional site:

- North Downs Woodland SAC at 6.2km
- Peters Pit SAC at 6.5km

The importance of each of these sites is described in Section 3.7.

1.7. SA Framework and Sustainability Objectives

Various environmental, social and economic issues have been identified through reviewing a wide variety of plans and strategies, collecting baseline information and identifying sustainability issues and problems. These issues have informed the development of the sustainability appraisal framework, which consists of a set of sustainable development policy objectives (sustainability objectives) as set out in Table 1. The framework was published for consultation in the SA Scoping Report and the table below also incorporates an additional detailed criterion following comments received on the Scoping Report when it was published for consultation between October and December 2022.

Table 1 SA Framework

Sustainability Objectives		Detailed considerations
1	Biodiversity	Ensure that development will not impact on important elements of the biodiversity resource and where possible contributes to the achievement of the Kent BAP and other strategies – Add to the biodiversity baseline by creating opportunities for targeted habitat creation (which, ideally, contributes to local or landscape scale habitat networks). – Avoid hindering plans for biodiversity conservation or enhancement – Support increased access to biodiversity – Provide a net gain in biodiversity value
2	Climate change	Address the causes of climate change through reducing emissions of greenhouse gases through energy efficiency and energy generated from renewable sources – Promote sustainable design and construction of facilities and support wider efforts to reduce the carbon footprint of minerals and waste operations. Promote climate change adaptation

3	Community and well-being	Support efforts to create and sustain sustainable communities, particularly the improvement of health and well-being; and support the delivery of housing targets – Help to redress spatial inequalities highlighted by the Index of Multiple deprivation. – Help to tackle more hidden forms of deprivation and exclusion, such as that which is experienced in urban and coastal areas and particular socio-economic groups within communities. – Ensure that the necessary aggregates are available for building, and that the necessary waste infrastructure is in place to support housing and economic growth – Ensure that minerals and waste development does not contribute to poor air quality with particular reference to PM2.5 and NOx – Protect and enhance public rights of way and access – Protect local green space – Avoid loss of tranquillity
4	Sustainable economic growth	Support economic growth and diversification – Support the development of a dynamic, diverse and knowledge-based economy that excels in innovation with higher value, lower impact activities – Stimulate economic revival and targeted employment generation in deprived areas
5	Flood risk	Reduce the risk of flooding and the resulting detriment to public wellbeing, the economy and the environment – Ensure that development does not lead to increased flood risk on or off site – Seek to mitigate or reduce flood risk through developments that are able to slow water flow and promote groundwater recharge
6	Land	Make efficient use of land and avoid sensitive locations – Make best use of previously developed land – Avoid locations with sensitive geomorphology – Seek to safeguard the best and most versatile agricultural land and recognise its economic and other benefits - Prevent inappropriate development in the Green Belt
7	Landscape and the historic environment	Protect and enhance Kent's countryside and historic environment – Protect the integrity of the AONBs and their setting and other particularly valued or sensitive landscapes – Take account of the constraints, opportunities and priorities demonstrated through landscape characterisation assessments and other studies at the landscape scale. – Avoid light pollution – Protect important heritage assets and their settings, as well as take account of the value of the character of the wider historic environment
8	Transport	Reduce and minimise unsustainable transport patterns and facilitate the transport of minerals and waste by the most sustainable modes possible – Minimise minerals and waste transport movements and journey lengths; and encourage transport by rail and water.

		– Ensure that minerals and waste transport does not impact on sensitive locations, including locations already experiencing congestion and locations where planned growth or regeneration is reliant on good transport networks.
9	Water	Maintain and improve the water quality of the Kent's rivers, ground waters and coasts, and achieve sustainable water resources management – Ensure that minerals and waste development seeks to promote the conservation of water resources wherever possible with particular reference to abstraction. – Avoid pollution of ground or surface waters, particularly in areas identified as being at risk or sensitive
10	Waste	Ensure the sustainable management of waste – Manage waste in accordance with the waste hierarchy – Prevent adverse effects from waste on human health and the environment – Ensure waste is managed as near as possible to its place of production

1.8. Likely Significant Effects of an Updated MSP

The SA has appraised the nominated site for the likely impacts on sustainable development policy objectives. It has also reviewed and updated the appraisal of existing allocated sites in the adopted MSP. The methodology and assumptions used in undertaking the appraisal are set out in Section 5. The detailed findings of the SA of all the sites are set out in Appendix B. These are summarised below for the newly nominated site at Hermitage Quarry and for an MSP updated to include the nominated site as a whole.

Land South and West of Hermitage Quarry

Allocation of the nominated site would ensure the continued local supply of hard rock as a material to support economic growth, in particular via its use as a construction aggregate. It would provide support for local jobs within the mineral industry and help to avoid increased transport costs for hard rock. It would ensure the availability of Kentish ragstone for use in building restoration projects, which has qualities not available in stone from elsewhere.

There are residential dwellings in proximity to the site nominated to the south and west of Hermitage Quarry and there is the potential for impacts on these dwellings from dust, noise, blasting, visual intrusion and light. Adequate mitigation of the impacts must be incorporated into proposals for site operations in accordance with KMWLP Policy DM 11 Health and Amenity.

The southern part of the site is designated as Plantation on Ancient Woodland Soils (PAWS), which would be lost to development and potentially fragmenting the remaining woodland. The ancient woodland soil has biodiversity value. Plans are to restore the site to deciduous native woodland to achieve a net gain in biodiversity. Conditions should be imposed on development so that: the sequence of working the site preserves connectivity within the woodland; translocation of important species is undertaken where possible; restoration of the site is to native deciduous woodland; and the existing soil is stockpiled and reused.

Sufficient mitigation should be provided to avoid adverse impacts (if achievable) in accordance with the policies of the KMWLP. The agricultural land in the northern part of the site is grade 2 (very good). The soil from this area should be required to be stripped, stockpiled and used for restoration.

Public Right of Way path MR108 crosses the site and there are several tracks through Oaken Wood which may be used for recreation by walkers and riders. These would be subject to diversions which, in accordance with KMWLP policy, must preserve the connectivity of routes and made safe for all users.

The site is 3.9km from the Kent Downs AONB and it is likely that any visual impacts will be limited provided the site is worked sequentially with the existing operations. The Maidstone Landscape Character Assessment[4] identifies Oaken Wood as a particular landscape and, although workings from extraction could be screened, this will not be a minor change and will not preserve the continuity of the feature, therefore adverse impacts are likely.

The 2022 planning permission states that there should be a daily maximum combined total of 800 HGV movements a day within a single calendar month, and no higher than 900 on any one day. If this is maintained over the life of the new site, then the proposal will not generate extra vehicle movements than the previous permission and impacts on the nearby AQMAs, the local road network and on greenhouse gas emissions are unlikely to increase. Any planning permission should require to be conditioned to similar levels of HGV movements.

There are listed buildings in proximity to the site. While it is possible that extraction at the site could have adverse impacts on one or more of these listed buildings, the separation distances would suggest that any impacts would be minor and any planning application should demonstrate that the impacts on landscape and on heritage assets in the vicinity of the nominated site can be appropriately mitigated, in accordance with KMWLP policy. There is some potential for palaeolithic interest on the site and any planning application should be accompanied by an assessment of the archaeological value of the site and a proposed plan for preserving remains in situ where possible or removing and conserving remains offsite.

The site is underlain by principal and secondary bedrock and superficial aquifers. It is classed as having medium and medium-high groundwater vulnerability in the north of the site and high groundwater vulnerability in the south and east of the site and lies within a Source Protection Zone 3. There is the potential for impacts on water, although if conditions are imposed similar to the existing operations on the depth of working in relation to the water table, adverse impacts are unlikely.

The SA has made a number of recommendations for measures to prevent, reduce and, as fully as possible, offset any significant adverse effects of an MSP updated to include the nominated site.

[4] Maidstone Landscape Character Assessment, Maidstone Borough Council and Jacobs, March 2012 amended July 2013

MSP Updated to Include the Nominated Site

Each of the sites contain or are adjacent to some form of biodiversity asset or biodiversity value and impacts are possible in each case. Planning applications are required to fully assess the impacts on biodiversity, to provide mitigation to ensure no unacceptable adverse impacts and to provide a net gain in biodiversity. Restoration proposals at three of the sites aim to restore the site to biodiversity habitat which will help to mitigate any potential loss.

If sites allocated in the Minerals Sites Plan are developed in parallel to existing sites then this is likely to increase emissions of greenhouse gases overall by generating additional HGV movements and increasing the energy requirements for mineral processing on site. However, these are insignificant when considered in the context of emissions from the county as a whole.

Some negative impacts are possible on community wellbeing, mainly due to the potential for negative impacts on residential amenity from operations and transport, and also on the diversion of footpaths and loss of tranquillity. However, development management criteria require mitigation to adequately minimise impacts from dust, noise, vibration, light and visual impacts and cumulative impacts are not likely to be significant.

The Minerals Sites Plan will help to contribute to economic growth by providing a supply of minerals to support construction and potentially other economic sectors that depend on aggregates, and by supporting jobs in the mineral industry in Kent. By facilitating the extraction of primary aggregates, the Minerals Sites Plan is exploiting a non-renewable resource, which cannot be considered sustainable.

Two of the mineral sites lie within Flood Zone 3. In these cases, it must be demonstrated that development can take place without adversely affecting flood risk and where possible contributing to a reduction in overall flood risk.

Two of the mineral sites contain soil which is classed as the best and most versatile agricultural land, although restoration to agricultural land is proposed for one of these and therefore the impact on soil quality is not likely to be significant for this site. The nominated site at Hermitage Quarry contains very good quality agricultural land, which is likely to be lost in the medium term. Two of the sites lie within the Metropolitan Green Belt, in which case it must be demonstrated that operations will not constitute inappropriate development or constitute very special circumstances. Given that the sites will be restored to wetland habitat, lasting cumulative impacts on the Green Belt are not envisaged.

There is the potential for the sites to have limited impacts on landscape and on the historic environment. However, it will be possible to provide mitigation such that the significance of impacts is minimised. Adverse impacts on the AONBs are not likely to be significant.

Minerals sites generate vehicle movements accessing and leaving the sites. The majority of these are HGV movements and it is estimated that these will range between 4 movements per hour to 8 movements per

hour depending on the site. In addition, staff vehicles will access the sites, around an estimated 10 movements per day. For sites M10 and M13, operations are planned to run sequentially with existing extraction in the locality so that the impacts from vehicles are likely to be no greater than existing impacts. If the new site at Hermitage Quarry is worked sequentially with the existing operations, vehicle movements are likely to be no greater than existing. The scale of the overall cumulative impact of an MSP updated to include the nominated site is not expected to be great given the predicted number of movements and the context of all traffic movements in the county. Due to the location of the allocated sites and the nominated site it is unlikely that an updated MSP which included these sites would support the use of sustainable modes of transport for minerals, although the KMWLP safeguards railheads and wharves to support rail and water transport of minerals.

Each of the currently allocated mineral sites have the potential for significant impacts on hydrology/hydrogeology and water quality. The nominated site at Hermitage Quarry is unlikely to affect hydrology/hydrogeology or quality. Restoration to wetland could affect local hydrology. However, development management criteria for the sites require assessment and mitigation of impacts and the cumulative impacts from all sites in the Minerals Sites Plan are not expected to be significant for the county as a whole.

1.9. Recommendations for Mitigating Adverse Effects

The SA has considered whether there is scope for making recommendations for measures to prevent, reduce and, as fully as possible, offset any significant adverse effects of an MSP updated to include the nominated site. A series of recommendations are made which are summarised in section 6.1 and set out in detail in Appendix B.

1.10. Reasons for Selecting Alternatives Dealt With

The SA is required to appraise reasonable alternatives to an MSP updated to include the nominated site. No other site for the extraction of hard rock has been identified or come forward in the Call for Sites undertaken in 2022, therefore there are no alternative sites within Kent that could be considered. However, an alternative could be not to allocate the site but instead rely on imports of hard rock from outside of the county, which may come into Kent by sea, rail or road. This has therefore been appraised as a reasonable alternative to the nominated site.

Importation of hard rock to meet local needs will increase the need for the transport of mineral and associated emissions to air. If the mineral is transported by road, there is a greater likelihood of negative impacts on air quality and greenhouse gas emissions, and negative impacts may be caused on congestion, noise and disturbance, depending on route and distance. The total distance transported is likely to lead to higher emissions overall. Importation of hard rock is also likely to have adverse economic impacts from increased transport costs and loss of jobs within Kent. Kentish ragstone would not be available for use in heritage restoration projects, therefore adverse impacts on the built historic environment are likely.

Importation from elsewhere may have adverse impacts on communities and the environment in proximity to the sites where extraction takes place, but this is dependent on where the mineral comes from and the conditions at those sites. The control of impacts at those sites is a matter for the relevant Mineral Planning Authorities.

1.11. Methodology

The SA is required to undertake an appraisal of an MSP updated to include the nominated site. The nominated new site and associated reasonable alternative have been subject to assessment using the SA framework set out in section 1.7 (see table 1), making a largely qualitative assessment with reference to available baseline data. Assessment matrices have been drafted and are presented in Appendix B and the results are summarised in Section 6.1.

The SA must also appraise the existing allocated sites as these would also be included in an MSP updated to include the nominated site. These sites were appraised in the SA of the currently adopted MSP during its development, the results of which were set out in the SA Report accompanying that Plan, published in November 2020. This appraisal work has been reviewed and updated where appropriate, including to incorporate the more recent additions to the appraisal framework highlighted in table 7.

In reporting the results of the appraisal, the following symbols have been used to indicate the broad nature of the predicted effect:

Table 2 Effect Symbols

Nature of effect	**Symbol**
Significant positive effect	++
Some positive effect	+
No effect	0
Some negative effect	-
Significant negative effect	--
Uncertain effect	?

Further details on the methodology, including assumptions made, are given in Section 5 of the main report. Information on the difficulties encountered is provided in Section 4 of the main report. These relate to the lack of available data in some instances, lack of operational detail and uncertainties about the scale and nature of some impacts.

1.12. Monitoring Recommendations

The sustainability appraisal has developed a set of recommendations for monitoring the predicted and unforeseen impacts of implementation of an MSP updated to include the nominated site. These are set out as a series of indicators related to the sustainability appraisal framework based on the likely and possible impacts of such an updated MSP. The recommended indicators should be incorporated into the Annual Monitoring Report for the KMWLP and are set out in Section 7.

2. Introduction

2.1. Background

Amey is commissioned to undertake a Sustainability Appraisal (SA) in support of the updates being made to the adopted Kent Mineral Sites Plan (MSP). These updates are required as a result of a five year review of the Kent Minerals and Waste Local Plan 2013-30 (KMWLP). This five year review, a legal requirement for all local plans under the Town and Country Planning (Local Planning) (England) (Amendment) Regulations 2017, has identified the need for updates to the KMWLP including a change to the timeframe covered by the KMWLP, from 2024 to 2039 (currently 2013-30). It has become clear that, with this extended timeframe, there are not sufficient permitted reserves in the adopted Mineral Sites Plan[5] to maintain a 10 year landbank[6] for hard rock, as required by national policy, and there is therefore a need to identify new suitable reserves of hard rock in the form of one or more additional site allocations in the Mineral Sites Plan. Hard rock can be used as an aggregate (often high quality) when it is crushed (crushed rock) and used as such e.g. in concrete.

SA is a mechanism for considering and communicating the likely effects of a draft plan, and reasonable alternatives, with a view to avoiding and mitigating adverse effects and maximising positives. This report presents the outcomes of this process up to Regulation 18 stage.

2.2. The SA Process

It is a legal requirement that SA is undertaken in line with the procedures prescribed by the Environmental Assessment of Plans and Programmes Regulations 2004, which transpose into national law the requirements of the retained EU Strategic Environmental Assessment (SEA) Directive. The 2004 Regulations require that a report – which for the purposes of SA is known as the 'SA Report' – is prepared which appraises the effects of a plan on sustainable development objectives and is taken into account in any update of the MSP prior to its adoption. Essentially, the SA Report must 'identify, describe and evaluate' the likely significant effects of implementing 'the plan, and reasonable alternatives'.

In line with regulatory requirements, SA has already been undertaken throughout the drafting and adoption of the KMWLP and MSP. Kent County Council are considering updating their Minerals Sites Plan to reflect the need to maintain a landbank of 10 years for crushed rock. The MSP must be in conformity with the overarching KMWLP policies and identify sites which meet with the KMWLP's requirements and aspirations. The nominated new mineral site was the only site submitted following the Call for Sites undertaken in October 2022. In addition to KCC's own site assessment process, the SA has appraised this additional site to inform the Regulation 18 public consultation.

[5] Mineral Sites Plan, Kent County Council, September 2020
[6] A landbank is a stock of mineral reserves with planning permission for their winning and working.

Prior to this SA Report being compiled, a Scoping Report was produced which set out the scope and rationale of the SA process and was used to consult the views of the three statutory consultees on that scope, namely the Environment Agency, Natural England and Historic England.

This SA Report has been produced in order to address the statutory appraisal questions as detailed in Table 3, to ensure that an MSP updated to include the nominated site has been assessed, any matters of significance noted and mitigation proposed if appropriate.

Table 3 Questions that must be answered (sequentially) within the SA Report

APPRAISAL QUESTION	CORRESPONDING REQUIREMENT OF THE SEA DIRECTIVE (The report must include...)
1) What is the plan seeking to achieve?	"**an outline of the contents, main objectives of the plan** or programme and relationship with other relevant plans and programmes" (Annex I(a))
2) What's the sustainability context?	"an outline of the contents, main objectives of the plan or programme and **relationship with other relevant plans and programmes**" (Annex I(a)) "**the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan** or programme and the way those objectives and any environmental considerations have been taken into account during its preparation" (Annex I(e))
3) What's the situation now?	"**the relevant aspects of the current state of the environment** and the likely evolution thereof without implementation of the plan or programme" (Annex I(b)) "**the environmental characteristics of areas likely to be significantly affected**" (Annex I(c))
4) What would the situation be without the plan?	"the relevant aspects of the current state of the environment and **the likely evolution thereof without implementation of the plan** or programme" (Annex I(b))
5) What are the key issues that should be a particular focus of the appraisal?	"**any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance**, such as areas designated pursuant to Directives 79/409/EEC [Special Protection Areas under the Birds Directive] and 92/43/EEC" (Annex I(d)) (Note impacts on European sites will be specifically addressed through Habitats Regulations Assessment)
6) How has the plan developed up to this point (including the influence of SA)?	"**an outline of the reasons for selecting the alternatives dealt with**, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information" (Annex I(h)) "the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and **the way those objectives and any environmental considerations have been taken into account during its preparation**" (Annex I(e))
7) How has the appraisal at this current stage been undertaken?	"an outline of the reasons for selecting the alternatives dealt with, and **a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered** in compiling the required information" (Annex I(h))
8) What are the appraisal findings / recommendations at this current stage?	"**the likely significant effects (1) on the environment**, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors" (Annex I(f)) "**the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment** of implementing the plan or programme" (Annex I(g))
9) How might we monitor the plan's impacts?	"**a description of the measures envisaged concerning monitoring...**" (Annex I(i))

2.3. Compliance with the SEA Directive and Regulations

The process of preparing an MSP is subject to the requirements of the European Union's Directive on the Environmental Assessment of Certain Plans & Programmes 2001/42/EC (the SEA Directive) and the domestic legislation through which the Directive has been transposed into law in England and Wales (the

Environmental Assessment of Plans & Programmes Regulations 2004 – Statutory Instrument 2004 No. 1633).

This SA was designed and undertaken so as to meet the legal requirements for the environmental assessment of plans. Throughout the report the term 'Sustainability Appraisal' should be interpreted as encompassing the SA process as required under the Planning & Compulsory Purchase Act 2004 and the Strategic Environmental Assessment process as required under the European Directive and domestic Regulations on the environmental assessment of plans and programmes.

The following table indicates the components of the SA Report that make up the Environmental Report, as required by domestic and European law on the environmental assessment of plans.

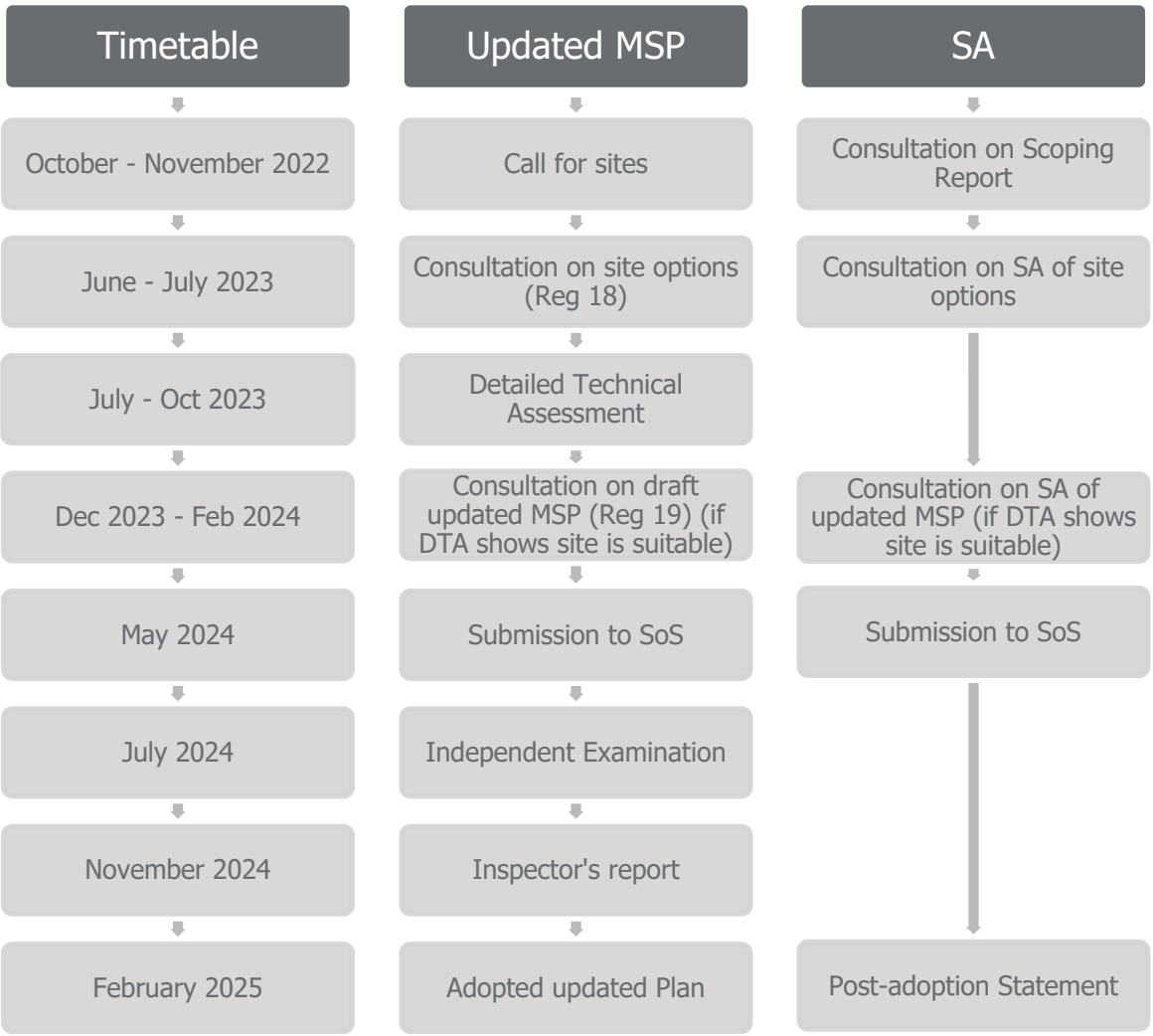
Table 4 Requirements of SEA Directive and Compliance of SA Report

Requirements for Environmental Report	**Component of SA Report**
a) An outline of the contents, main objectives of the plan or programme, and relationship with other relevant plans and programmes;	Section 3.1
b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme;	Sections 3.3 and 3.4
c) The environmental characteristics of areas likely to be significantly affected;	Section 3.6
d) Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC;	Sections 3.3, 3.5 and 3.7
e) The environmental protection objectives, established at international, Community or national level, which are relevant to the plan or programme and the way those objectives and any environmental, considerations have been taken into account during its preparation;	Section 3.2
f) The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors;	Section 6 and Appendices B and C

Requirements for Environmental Report	Component of SA Report
g) The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme;	Appendix B
h) An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information;	Sections 4 and 5
i) a description of measures envisaged concerning monitoring in accordance with Art. 10;	Section 7
j) a non-technical summary of the information provided under the above headings	Section 1

The key steps in the preparation of an updated MSP and an associated SA are set out in Figure 1.

Figure 1 Updating MSP and SA Preparation Process



3. The Scope of the Sustainability Appraisal

3.1. What is the Plan seeking to achieve?

The MSP is a land use plan produced by Kent County Council which identifies and allocates mineral sites within the county for the working and winning of minerals. The following sites are currently allocated within the adopted MSP:

- M3 Chapel Farm
- M10 Moat Farm
- M13 Stonecastle Farm Quarry Extension

The main objective of the MSP is to ensure that Kent has enough permitted mineral reserves over the plan period (until 2039) and 7 years beyond to meet plan making requirements. Sites M3 is a soft sand site and M10 and M13 are sharp sand and gravel sites.

The Kent Minerals and Waste Local Plan (KMWLP) was adopted in July 2016 and sets out the vision and objectives for Kent's minerals supply and waste management capacity from 2013 to 2030. The KMWLP did not allocate specific sites suitable for minerals and waste development except for two strategic sites – one for cement production (and related mineral reserves) at Holborough in the Medway Valley and one for hazardous waste disposal at Norwood Quarry on the Isle of Sheppey. The KMWLP identifies that the specific sites for minerals developments would be set out in the separate MSP. The selection of sites was based on the policies of the KMWLP and sites proposed for development are required to comply with the policies of the KMWLP.

The KMWLP is a high-level document which:

- sets out the vision and strategy for mineral provision and waste management in Kent;
- contains a number of development management policies for evaluating minerals and waste planning applications;
- considers strategic site provision for all minerals and waste management facilities; and identifies two areas where key (strategic) mineral and waste development should take place. These have been fully assessed previously and therefore are not subject to this SA.

KCC are currently undertaking a five year review of the KMWLP. This five year review has identified the need for updates to the KMWLP including a change to the timeframe covered by the KMWLP, from 2024 to 2039 (currently 2013-30). It has become clear that, with this extended timeframe, there are not sufficient permitted reserves in the adopted Mineral Sites Plan[7] to maintain a 10 year landbank[8] for hard rock, as

[7] Mineral Sites Plan, Kent County Council, September 2020
[8] A landbank is a stock of mineral reserves with planning permission for their winning and working.

required by national policy, and there is therefore a need to identify new suitable reserves of hard rock in the form of one or more additional site allocations in the Mineral Sites Plan. A Call for Sites was therefore undertaken in October 2022, which resulted in the following additional site being nominated by the site promoter for inclusion in the MSP:

- Land to the South and West of Hermitage Quarry

In addition to the change to the timeframe of the KMWLP, a number of other changes are being made to the policies and supporting text of the KMWLP as part of the five year review. The KMWLP as amended by the five year review is subject to a separate, parallel SA process. At the time of writing, a Regulation 18 consultation has been undertaken for the five year review, accompanied by an SA Report[9], issued for public consultation between October and December 2022.

The government has published the National Planning Policy Framework (July 2021), which sets out planning policies for achieving sustainable development. Emphasis has been placed on the importance of ensuring that Local Plan policies contribute to achieving sustainable development. The MSP needs to be prepared in compliance with the National Planning Policy Framework (NPPF).

The current piece of work is to undertake SA of an MSP updated to include the nominated site to inform a Regulation 18 consultation on the draft, which must be in conformity with the overarching KMWLP. Rather than being a strategy document, the MSP identifies sites which meet with the KMWLP's aspirations and which can be demonstrated to meet social, economic and environmental criteria. The MSP and associated SA do not replace the statutory need for Environmental Impact Assessment, nor does it remove the need for applicants to apply for detailed planning permission.

3.2. What's the sustainability context?

This section sets out a review of the national policy context relevant to the MSP. It describes the policy objectives relating to sustainable development in the key policy documents and which have relevance to the MSP. Other relevant policy documents were reviewed for the SA Scoping Report and are set out in Appendix A to that report.

National Planning Policy Framework

The National Planning Policy Framework (NPPF) sets out the government's planning policies for England and how these should be applied by local planning authorities. At the heart of the framework is the presumption of sustainable development (Paragraph 11). Achieving sustainable development means that the planning system has three overarching objectives – economic, social and environmental – which should be delivered through the KMWLP and MSP.

[9] Sustainability Appraisal Report – Regulation 18 Consultation, Amey Consulting, August 2022

The extracts below from the NPPF summarises policies that are most relevant to the assessment, allocation and development of mineral sites.

Economy

Significant weight should be placed on the need to support economic growth and productivity. Planning policies should positively and proactively encourage sustainable economic growth, allow for new and flexible working practices, and enable a rapid response to changes in economic circumstances.

Open space

Planning policies and decisions should protect and enhance public rights of way and access, including taking opportunities to provide better facilities for users.

Transport

Transport issues should be considered from the earliest stages of plan-making and development proposals, so that the potential impacts of development on transport networks and the environment can be addressed, including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains.

In assessing sites that may be allocated for development in plans, it should be ensured that: appropriate opportunities to promote sustainable transport modes can be taken up; safe and suitable access to the site can be achieved for all users; and any significant impacts from the development on the transport network or on highway safety can be cost effectively mitigated to an acceptable degree.

Green Belt

Certain forms of development are not inappropriate in the Green Belt provided they preserve its openness and do not conflict with the purposes of including land within it, including mineral extraction. Planning policies and decisions should recognise that some undeveloped land can perform many functions, such as for wildlife, recreation, flood risk mitigation, cooling/shading, carbon storage or food production.

Flood risk

Plans should take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating from rising temperatures. Policies should support appropriate measures to ensure the future resilience of communities and infrastructure to climate change impacts. New development should be planned for in ways that avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure.

Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere.

Development should only be allowed in areas at risk of flooding where it can be demonstrated that:

- within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;
- the development is appropriately flood resistant and resilient;
- it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;
- any residual risk can be safely managed; and
- safe access and escape routes are included where appropriate, as part of an agreed emergency plan.

Natural environment

Planning policies and decisions should contribute to and enhance the natural and local environment by:

- protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

Planning policies and decisions should ensure that a site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination.

Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:

- mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;
- identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason; and
- limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.

Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement.

Heritage assets

Great weight should be given to the conservation of heritage assets. Any harm to, or loss of, the significance of a designated heritage asset should require clear and convincing justification.

Minerals

Planning policies should:

- provide for the extraction of mineral resources of local and national importance, but not identify new sites or extensions to existing sites for peat extraction;
- so far as practicable, take account of the contribution that substitute or secondary and recycled materials and minerals waste would make to the supply of materials, before considering extraction of primary materials, whilst aiming to source minerals supplies indigenously;
- safeguard mineral resources by defining Mineral Safeguarding Areas; and adopt appropriate policies so that known locations of specific minerals resources of local and national importance are not sterilised by non-mineral development where this should be avoided (whilst not creating a presumption that the resources defined will be worked);

- set out policies to encourage the prior extraction of minerals, where practical and environmentally feasible, if it is necessary for non-mineral development to take place;
- safeguard existing, planned and potential sites for: the bulk transport, handling and processing of minerals; the manufacture of concrete and concrete products; and the handling, processing and distribution of substitute, recycled and secondary aggregate material;
- 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;
- when developing noise limits, recognise that some noisy short-term activities, which may otherwise be regarded as unacceptable, are unavoidable to facilitate minerals extraction; and
- ensure that worked land is reclaimed at the earliest opportunity, taking account of aviation safety, and that high quality restoration and aftercare of mineral sites takes place.

Waste

The NPPF should be read in conjunction with the Government's separate National Planning policy for Waste.

Environmental Improvement Plan 2023

The 25 Year Environment Plan[10] (25YEP) published in 2018 set out the Government's vision for action to help the natural world regain and retain good health. This Environmental Improvement Plan 2023 is the first review of the 25YEP. It reinforces the intent of the 25YEP: where the 25YEP set out the framework and vision, this document sets out the plan to deliver.

To achieve its vision, the 25YEP set ten goals. These continue to provide the basis for the 2023 Plan. The apex goal is for thriving plants and wildlife. In order to achieve this, the Government will aim to achieve the following.

Air quality:

- Cut overall air pollution by tackling the key sources of emissions
- Tackle specific air quality hotspots by challenging councils to improve air quality more quickly
- Reduce ammonia emissions

Water quality:

[10] A Green Future: Our 25 Year Plan to Improve the Environment, Defra, 2018

- Tackle nutrient pollution, including by upgrading wastewater treatment works and supporting a shift to sustainable agricultural techniques.
- Restore 400 miles of river through the first round of Landscape Recovery projects and establish 3,000 hectares of new woodlands along England's rivers.
- Roll out water efficiency labelling across appliances and ensure water companies deliver a 50% reduction in leakages by 2050.

Chemical exposure:

- Develop a new Chemicals Strategy to establish our regulatory approach and priorities for the sustainable use of chemicals.
- Help farmers transition to Integrated Pest Management utilising nature to tackle pests and reducing reliance on manufactured pesticides.

Use of resources:

- Work with business to implement packaging extended producer responsibility from 2024 so that polluters pay to recycle packaging.
- Introduce a deposit return scheme for plastic and metal drinks containers from October 2025 to drive higher recycling rates.
- Implement consistent recycling between different councils, to boost recycling rates.
- Ban the supply of single-use plastics from October 2023 and explore options for the production of coffee cups and behavioural science in how they are used.
- Grow a sustainable and long-term UK timber supply by investing in tree planting, skills, innovation and capacity, as well as improving regulatory processes.
- Publish a baseline map of soil health for England by 2028 and bring at least 40% of England's agricultural soil into sustainable management by 2028.
- Tackle illegal deforestation in our supply chains.

Climate change:

- Update on our progress and plans to reach net zero.
- Publish a Land Use Framework in 2023, setting out how we will balance multiple demands on our land including climate mitigation and adaptation.

- Publish the third National Adaptation Programme in 2023 that will set out our five year strategy to build the UK's climate resilience.
- Continue our role as a global leader in tackling climate change, biodiversity loss and land degradation and push for an integrated approach to international action.

Environmental hazards:

- Deliver our investment plan to improve coastal and flood defences, including £100 million on the most frequently flooded areas.
- Reward farmers for actions to reduce risks and impacts from floods, droughts, and wildfires through our new future farming schemes.

Biosecurity:

- Deliver the five-year action plan of the 2023 Plant Biosecurity Strategy
- Tailor border import controls with a new targeted and risk-based model.

Nature, heritage and engagement:

- Fulfil a commitment that everyone should live within 15 minutes walk of a green or blue space.
- Continue our delivery of the England Coast Path and the Coast to Coast National Trail.
- Identifying key areas for nature restoration within the Green Belt.
- Invest in a new national landscapes partnership for National Parks, Areas of Outstanding Natural Beauty and National Trails.
- Extend the delivery of our Farming in Protected Landscapes programme.
- Invest in active travel, with a vision for half of all journeys in towns and cities to be cycled or walked by 2030.

Our Waste, Our Resources: A Strategy for England, 2018

The Strategy recognises that natural capital is one of our most valuable assets and sets out how the government plans to preserve the stock of material resources by minimising waste, promoting resource efficiency and moving towards a circular economy. The Strategy also sets out the aim to minimise damage to the natural environment and is aligned to the UK Government's 25 Year Environment Plan.

The government will address information barriers to the use of secondary materials as one element of the strategy.

Planning Practice Guidance – Minerals, MHCLG, 2014

The guidance sets out how mineral planning authorities should develop planning policies for the management of mineral extraction, supply, processing and transport and the issues that must be taken into consideration. It states that mineral planning authorities should plan for the steady and adequate supply of minerals in one or more of the following ways (in order of priority):

1. Designating Specific Sites – where viable resources are known to exist, landowners are supportive of minerals development and the proposal is likely to be acceptable in planning terms. Such sites may also include essential operations associated with mineral extraction;
2. Designating Preferred Areas, which are areas of known resources where planning permission might reasonably be anticipated. Such areas may also include essential operations associated with mineral extraction; and/or
3. Designating Areas of Search – areas where knowledge of mineral resources may be less certain but within which planning permission may be granted, particularly if there is a potential shortfall in supply.

The suitability of each proposed site, whether an extension to an existing site or a new site, must be considered on its individual merits, taking into account issues such as:

- need for the specific mineral;
- economic considerations (such being able to continue to extract the resource, retaining jobs
- , being able to utilise existing plant and other infrastructure), and;
- positive and negative environmental impacts (including the feasibility of a strategic approach to restoration).
- the cumulative impact of proposals in an area.

Planning authorities should also safeguard existing, planned and potential storage, handling and transport sites to:

- ensure that sites for these purposes are available should they be needed; and
- prevent sensitive or inappropriate development that would conflict with the use of sites identified for these purposes.

The principal issues that mineral planning authorities should address, bearing in mind that not all issues will be relevant at every site to the same degree, include:

- noise associated with the operation;
- dust;

- air quality;
- lighting;
- visual impact on the local and wider landscape;
- landscape character;
- archaeological and heritage features;
- traffic;
- risk of contamination to land;
- soil resources;
- geological structure;
- impact on best and most versatile agricultural land;
- blast vibration;
- flood risk;
- land stability/subsidence;
- internationally, nationally or locally designated wildlife sites, protected habitats and species, and ecological networks;
- impacts on nationally protected landscapes (National Parks, the Broads and Areas of Outstanding Natural Beauty);
- nationally protected geological and geo-morphological sites and features;
- site restoration and aftercare;
- surface and, in some cases, ground water issues;
- water abstraction.

Climate Change Act 2008 (2050 Target Amendment) Order 2019

The Act sets out a legal framework to commit the government to tackling climate change, including through the setting of five-yearly carbon budgets to drive decarbonisation. Climate change adaptation is also covered in the Act as it provides a legal framework for adaptation policy. The amendment introduces the

national target for net zero carbon emissions by 2050, which increases the required percentage reduction of greenhouse gas emissions from at least 80% to at least 100% from the 1990 baseline in the UK by 2050.

Planning and Compulsory Purchase Act 2004

Section 19 of the Planning and Compulsory Purchase Act requires local planning authorities to include in their Local Plans policies designed to secure that the development and use of land in the local planning authority's area contribute to the mitigation of, and adaptation to, climate change.

The Environment Act 2021

The Environmental Governance Part of the Environment Act (Part 1) includes provisions to:

- allow the government to set long-term targets (of at least 15 years duration) in relation to the natural environment and people's enjoyment of the natural environment via statutory instrument;
- require the government to meet long-term targets, and to prepare remedial plans where long-term targets are not met;
- require the government to set, by October 2022, at least one long-term target in each of the priority areas of air quality, water, biodiversity, and resource efficiency and waste reduction;
- require the government to set and meet an air quality target for fine particulate matter in ambient air (PM2.5);
- require the government to set and meet a target relating to the abundance of species;
- require the government to have, and maintain, an Environmental Improvement Plan, a plan to significantly improve the natural environment;
- require the publication of a policy statement on environmental principles setting out how environmental principles specified under the Act are to be interpreted and applied by Ministers of the Crown during the policymaking process;

The Waste and Resource Efficiency Part of the Environment Act (Part 3) includes provisions to:

- require producers to pay the full net cost of managing their products at end of life to incentivise more sustainable use of resources;
- allow deposit return schemes to be established, whereby a deposit is included in the price of an in-scope item (such as a drink in a bottle or can);
- enable producer responsibility obligations to be applied at all levels of the waste hierarchy to, for example, facilitate the prevention of food waste and increase the redistribution of food surplus;
- enable charges to be applied to specified single-use items;

- require local authorities in England to collect the same range of materials for recycling from households;
- ensure households have a weekly separate food waste collection;
- ensure businesses and public bodies in England present recyclable materials for separate collection and arrange for its separate collection;
- allow the Environment Agency to be more flexible and responsive in managing exempt waste sites and ensure proportionate controls are in place to avoid environmental harm or illegal activity as waste market practices change;
- fill a gap in existing powers to ensure that waste can be collected and disposed of when normal processes fail;
- enable the Secretary of State to regulate the import, export or transit of waste for export, and hazardous waste.

The Air Quality and Environmental Recall Part of the Environment Act (Part 4) includes provisions to:

- amend Part 4 of the Environment Act 1995 (which creates the Local Air Quality Management Framework) to strengthen the requirements in respect of the National Air Quality Strategy;
- amend the Local Air Quality Management Framework to clarify duties and enable greater cooperation between different levels of local government, and other relevant public bodies, in the preparation of Local Air Quality Action Plans;

The Water Part of the Environment Act (Part 5) includes provisions to:

- change the procedural requirements for Water Resources Management Plans and Drought Plans, and enable increased collaboration between different water undertakers to better manage water resources;
- place new duties on government, the Environment Agency and sewerage undertakers to require actions for reducing the frequency and harm of discharges from storm overflows on the environment;
- enable future updates to the lists of priority substances in water quality legislation.

The Nature and Biodiversity Part of the Environment Act (Part 6) includes provisions to:

- amend section 40 of the Natural Environment and Rural Communities Act 2006 to strengthen and improve the duty on public bodies to conserve and enhance biodiversity;

- mandate net gain in biodiversity through the planning system, requiring a 10% increase in biodiversity after development, compared to the level of biodiversity prior to the development taking place;
- require the preparation and publication of Local Nature Recovery Strategies, a tool to direct action for nature, and place an emphasis on supporting local leadership of nature improvement;
- provide for Species Conservation and Protected Site Strategies to improve the conservation and protection of the most vulnerable species and habitats;
- provide powers to amend Regulation 9 and Part 6 of the Conservation of Habitats and Species Regulations 2017 to re-focus the Regulations to support delivery of domestic biodiversity priorities.

Climate Emergency Statement, KCC, 2019

"We recognise the UK environment and climate emergency and will continue to commit resources and align its policies to address this. Through the framework of the Energy and Low Emissions Strategy, we will facilitate the setting and agreement of a target of net zero emissions by 2050 for Kent and Medway.

"We will, by May 2020, set an accelerated target with associated action plan for its own estate and activities including those of its traded companies using appropriate methodologies. In addition, we will deliver a Kent and Medway Climate Change Risk and Impact Report and develop and facilitate adoption of a subsequent Kent and Medway Climate Change Adaptation Implementation Plan by the end of March 2020."

Kent and Medway Low Emissions Strategy, 2020

The strategy has four strategic aims:

1. Evidence: Provide an ongoing evidence and intelligence base; linking data sets to identify hot spots and opportunities, and to build the business case for action across Kent and Medway
2. Policy and strategy: Facilitate the development of evidence-based policy and strategy to future-proof economic recovery, tackle emerging issues and realise opportunities
3. Leadership: Support the public sector across Kent and Medway to play a strong leadership role with regards to challenges and opportunities
4. Action: Facilitate increased and accelerated action and implementation across Kent and Medway

The strategy has ten priorities, including the following relevant to the MSP:

- Priority 1: Emission reduction pathways to 2050: Set five-year carbon budgets and emission reduction pathways to 2050 for Kent and Medway, with significant reduction by 2030.
- Priority 2: Public sector decision making: Develop a consistent approach across Kent and Medway, to assess, manage and mitigate environmental impacts (both positive and negative), resulting from public sector policies, strategies, service delivery, commissioning and procurement.

- Priority 3: Planning and development: Ensure climate change, energy, air quality and environmental considerations are integrated into Local Plans, policies and developments, by developing a clean growth strategic planning policy and guidance framework for Kent and Medway, to drive down emissions and incorporate climate resilience.
- Priority 6: Transport, travel and digital connectivity: Set up a smart connectivity and mobility modal shift programme – linking sustainable transport, transport innovations, active travel, virtual working, broadband, digital services, artificial intelligence and behaviour change.
- Priority 8: Green infrastructure: Develop a multi-functional, natural capital opportunity and investment programme – focusing on environmental projects that store carbon, increase climate change resilience, improve air quality and soil health and increase biodiversity.

Kent Environment Strategy: a Strategy for Environment, Health and Economy Implementation Plan, KCC, 2017

The strategy and associated implementation plan seek to provide support to decision makers in ensuring that the county of Kent remains the highly desirable location of choice for visitors, residents and businesses. The strategy seeks to build on past successes and learn from experiences; evaluating progress, bridging gaps in knowledge and delivering activities that have positive benefits for the environment, health and economy.

The strategy is split into three themes, each of which has several policy priorities identified under it. Challenges, learning and opportunities underpin the priorities identified in the themes of the strategy. Relevant to the MSP are the following:

Theme 2 Making best use of existing resources, avoiding or minimising negative impacts:

- Priority 5 Conserve and enhance the quality and supply of the county of Kent's natural and historical resources and assets
- Priority 6 Improve our resource efficiency such as energy, water and land
- Priority 7 Ensure sustainable access and connectivity for businesses and communities

Theme 3 Toward a sustainable future

- Priority 8: Influence future sustainable growth for the county of Kent
  - Sub-priority 8.1: Ensure that key environmental risks such as flooding, water scarcity and heat are informing policy decisions and development
  - Sub-priority 8.2: Address the environmental challenges and ambitions identified in the Growth and Infrastructure Framework and local plans, such as sustainable and alternative transport options, green infrastructure, energy, water and flooding

- Priority 9: Improve the county of Kent's environmental, social and economic resilience to environmental change
  - Sub-priority 9.2: Ensure that public sector services have assessed key environmental and severe weather risks and opportunities and are taking action accordingly
- Priority 10: Supporting growth in the rural economy and low carbon and environmental services sector
  - Sub-priority 10.2: Maximise opportunities for the rural sector

Framing Kent's Future: Our Council Strategy 2022-2026, Kent County Council, May 2022

The new Council Strategy was adopted in May 2022 and includes the following commitments.

- To support the Kent economy to be resilient and successfully adapt to the challenges and opportunities it faces over the coming years.
- To see significant improvements in the economy, connectivity, educational attainment, skills and employment rates and public health outcomes in deprived communities in coastal areas so that they improve faster than the rest of Kent to reduce the gaps.
- To work with our partners to hardwire a preventative approach into improving the health of Kent's population and narrowing health inequalities.

To ensure that new development provides the appropriate physical and social infrastructure necessary to support new and existing communities' quality of life.

- To support our rural communities and businesses in meeting the distinctive challenges and opportunities that they face.
- To ensure residents have access to viable and attractive travel options that allow them to make safe, efficient and more sustainable journeys throughout Kent.
- To help all Kent's communities benefit from having a strong social fabric which underpins family, community and personal resilience.
- To consider Kent's environment as a core asset that is valued, strengthened and protected.
- To work towards Kent being Net Zero by 2050.
- To support Kent to become a leading county for carbon zero energy production and use.
- To ensure the county is well placed to adapt to climate change.

A review of other key policy documents at county, national and international level was undertaken and the findings of this were included in Appendix A of the Scoping Report.

The key conclusions drawn from this review are that the appraisal framework which was used to assess the draft updated KMWLP in August 2022 is appropriate for appraising an MSP updated to include the nominated site.

3.3. What's the situation now and how would it change without the plan (sustainability 'baseline')?

The following is a summary of the sustainability baseline characteristics described in the Scoping Report. This has been informed by the previous SA work on the KMWLP and the review of baseline data undertaken for the Scoping Report.

Environmental baseline

- The amount of residual waste collected per household in Kent has generally fallen in recent years, to 554kg in 2021/22. 44% of household waste was reused, recycled or composted. Less than 1.5% is landfilled. Most of the remainder is incinerated with energy recovery.
- Some 7 million tonnes of waste of all kinds (the majority being construction and demolition waste) were reported as being managed at Kent waste management facilities in 2021. This compares with around 1.85 million tonnes of Kent waste managed outside the county. However, this export is more than offset by imports, so taking a simple balance, Kent remains net self-sufficient. Of the imports, just over 360,000 tonnes came from London, of which 126,000 tonnes were managed by Energy from Waste, and around 500 tonnes to non-inert landfill. 224,000 tonnes were managed at/by inert landfill/permanent deposit to land.
- Construction aggregates (sand, gravel and ragstone) are the main types of economically important minerals extracted in Kent at this time, although brickearth (for stock brick manufacture), clay (for tile manufacture and engineering clay) and chalk (for engineering and agricultural lime applications) is also extracted. This is supplemented with imports and recycled aggregates.
- Kent is considered to be one the UK's most wildlife-rich counties. This is a result of its varied geology, long coastline, landscape history and southerly location / proximity to mainland Europe.
- Natura 2000 habitat is concentrated around the coast, particularly around the Thames Gateway (much within Medway UA), the Isle of Thanet, the Stour Estuary and Dungeness. Sites of Special Scientific Interest (SSSI) cover 8.5% of the county. The county contains c.11% of England's ancient woodland.
- The Thames Gateway is also acknowledged for its national importance due to 'brownfield' biodiversity.
- The last century has seen major losses and declines of species within Kent. Amongst the most important drivers of biodiversity loss in Kent are: the direct loss of land of value to wildlife to built-development or intensive farming, which has reduced and fragmented populations; and the effects of climate change.

- Kent is considered to be the most at risk lead local flood authority in England. Flooding has a significant impact on residents and the economy, with such effects predicted to worsen due to climate change.
- Since 2006 there has been a steady reduction in carbon dioxide emissions, to 4.6 tonnes per capita in 2019. This is slightly lower than national emission levels.
- In 2017 it is estimated that 922 early deaths occurred as a result of PM2.5 air pollution across Kent & Medway.
- Kent has the highest number of listed buildings in the South East, which is second only to the South West for numbers at regional level.
- The Kent Downs AONB covers nearly a quarter of the County, whilst the High Weald AONB is shared with East Sussex.
- Green Belt comprises the majority of Sevenoaks, Tonbridge and Malling and Gravesham Districts, as well as a proportion of Tunbridge Wells and Dartford Boroughs and a small part of Maidstone Borough.
- There are relatively extensive areas of high quality (grade one) agricultural land in Kent. This land tends to be concentrated in the north of the county, running in a band from Gillingham in the west through to Deal in the east. A pocket of high quality agricultural land can also be found in the area surrounding New Romney.
- Road traffic has grown fairly steadily over the decade from 2011, apart from 2020 when COVID-19 particularly affected car traffic. The effect on LGVs and HGVs was less marked, although still showed a decrease. Kent is a major gateway for the movement of international freight through the Channel Tunnel, the ports of Dover, Ramsgate and Sheerness. Road haulage is the dominant means of transport in this sector.
- In Kent there are many catchments where there is little or no water available for abstraction during dry periods. Pressures are particularly notable in Kent as it is one of the driest parts of England and Wales, coupled with high population density and household water use. Over the next few decades, there will be increasing pressures from the rising population and associated development. Looking further ahead, climate change could have a major impact on the water that will be available for consumption.

Social baseline

- Kent had an estimated population of 1,589,100 in mid-2020. By 2032, the population of Kent is projected to increase to 1,724,263, an increase of c. 8%.

- Although Kent is ranked within the least deprived 50% of upper-tier local authorities in England for 4 out of 5 summary measures of the IMD2019, significant areas within Kent are amongst England's most deprived 20% and levels of deprivation have increased in nine out of 12 local authorities in Kent.
- Life expectancy is 9 years lower for men and 6 years lower for women in the most deprived populations in Kent compared to the least deprived populations.
- Early death rates from cancer, heart disease and stroke have fallen and are better than the England average. A quarter of children aged 4-5 are classified as being obese, higher than the average for England. However, estimated levels of adult obesity are similar to the England average.
- Climate change projections highlight an increase in risk to people from flooding and hotter, drier summers leading to public health risks.

Economic baseline

- In 2018, the gross disposable household income in Kent was £22,164 per resident, 4.4% above the national average.
- Between 2010 and 2020, the number of active enterprises grew by 25.8%, to 70,815, which is below the national average of 27.7% growth.
- The overall employment rate in Kent has risen since the KMWLP was adopted, from 73.8% in 2016 to 78.4% in 2021.
- Apart from a slight decline in 2008-2009, GVA per head in Kent and Medway has risen steadily in the 21st century. In 2019 it was £24,877 per head, up from £14,029 in 2000, a rise of 77.3%. However, per capita GVA is lower than for the South East as a whole and for England.
- The largest sector for employment is wholesale and retail trade at 17.6%, followed by human health and social work at 13.3% and education at 9.6%. The distribution sector generated the highest gross value added in Kent, a fifth of the total.

3.4. How would the baseline change without an MSP updated to include the nominated site?

There is a degree of uncertainty about how the baseline might change without the adoption of an MSP updated to include the nominated site. Proposals for development of new mineral sites could still come forward and these will be required to comply with the policies of the KMWLP. This includes development management policies on the protection and enhancement of: biodiversity value, landscape, Green Belt, heritage assets, the water environment, health and amenity (including air quality) and transportation. Long term trends in environmental quality are likely to continue.

However, without an MSP updated to include the nominated site there will be less certainty that Kent would be able to provide enough hard rock to support the expected future demand for minerals from construction

and industry, particularly for the restoration of historic buildings. In such an event, there would be a need to source minerals from elsewhere. This may mean importing minerals from other parts of the country, which will have adverse effects on transport networks and air quality and may be difficult to blend in with existing Kentish stone in buildings. It is unlikely that secondary and recycled aggregates or marine dredged aggregates would meet the specification required.

Without an MSP updated to include the nominated site, imports from other parts of the country will be required. This is likely to lead to increased carbon dioxide emissions from mineral transport and associated risks to people and communities.

The social baseline is unlikely to be affected without the adoption of an MSP updated to include the nominated site. Population, levels of deprivation and health are unlikely to be significantly different with or without an MSP updated to include the nominated site, although jobs will be lost at the existing operational quarry when the permitted resource is exhausted.

3.5. What are the key sustainability issues?

Following review of context and baseline, the SA Scoping Report set out the key sustainability issues in Kent as follows.

Biodiversity

- Ambitious BAP targets have been set, including for habitat creation and for reducing fragmentation and improving connectivity. Landscape scale projects are underway with biodiversity conservation and access to biodiversity as central components.
- It is possible to increase the connectivity between important habitat patches by incorporating habitat creation as part of new development. There is a particular need to maximise the biodiversity benefits associated with restoration of minerals sites.
- Biodiversity benefits relate to the minerals and waste development management strategy, which is set to ensure that negative effects associated with minerals extraction and waste management are avoided or mitigated, and the potential for minerals and waste development to contribute to biodiversity objectives is realised.

Climate change

- There is the potential to promote technologies that increase the carbon efficiency of minerals and waste operations, including increased reuse and recycling of both waste and minerals.
- Transport is a significant contributor to greenhouse gas emissions that should be addressed through the plan.

Community and well-being

- Clear spatial variation across Kent exists in terms of income, employment and health deprivation.
- The highest levels of deprivation can be seen in both coastal regions and urban areas.
- Deprivation is focused amongst particular socio-economic groups.
- Community impacts associated with the proximity of quarries and also lorry movements is an issue of strategic importance.
- Traffic on the motorway and A-road network is the cause of the majority of designated Air Quality Management Areas (AQMAs).
- Future development at existing population centres is likely to put further pressure on the road network and lead to new and worsened occurrences of poor air quality.
- There remain instances where point source air pollution is a strategic issue.

Sustainable economic growth

- There are ambitious plans for economic growth and regeneration, for example in East Kent and the Kent Thames Gateway.
- There are local disparities in economic activity (including problems of 'rurality')
- Economic benefits relate to the targeted measures that are proposed as part of the minerals strategy; in particular, around ensuring supply of materials for strategically important industries / economic activities.

Flood risk

- There is extensive flood risk in Kent, and this situation is set to become worse with climate change.

Land

- There is a need to make best use of previously developed land and avoid the loss of the County's best and most versatile agricultural land. There is also a need to avoid conflict with coastal geomorphology.
- 'Land' and 'landscape' benefits relate to the support that is provided for construction and demolition waste recycling (i.e. aggregate recycling), which reduces the need to extract primary aggregates. There is also a focus on ensuring that the non-recyclable fraction of this inert waste is targeted at quarry restoration projects as a priority.

Landscape and the historic environment

- There is a need to protect the integrity of the most valued and sensitive landscapes as well as to avoid damage to the landscape character more widely (signs of change inconsistent with countryside character have been identified in several areas).
- Along with a loss of the distinctiveness of the landscape character there has been a noticeable decrease in the tranquillity of landscapes and landscapes that are genuinely 'wild and remote' and an increase in levels of light pollution.
- Specific landscape impacts can be associated with minerals and waste development. Appropriate restoration should be sought to mitigate effects.
- There is a need to take account of designated heritage assets and their settings as well as undesignated assets and wider historic character.
- Heritage / historic environment benefits (which are relatively small magnitude and hence of unclear significance) relate to the support that is provided by extraction of minerals for heritage building products with a view to maintaining a diverse supply.
- There remains ongoing debate about the potential for impacts to the AONB, e.g. from silica sand extraction, but the stringency of policy has been strengthened and so effects are now unlikely.

Transport

- Much of the primary road network operates at, or above, capacity and there is a shortage of freight paths on the rail network.
- There is a need to adhere to the proximity principle wherever possible.
- There is a need to increase the amount of waste and, in particular, minerals transported by alternatives to road.
- A regional strategy is in place to improve the transport infrastructure within and to Kent. The related Investment Plan, currently still draft, proposes several packages for investment in Kent relating to improving rail infrastructure and bus and ferry services, creating a Lower Thames Crossing and providing highway improvements.
- 'Transport' (and hence also climate change mitigation) benefits relate to the fact that the waste strategy is geared towards ensuring strict adherence to the 'proximity principle', i.e. a situation whereby waste is managed close to the source of production. It is also the case that the minerals strategy includes a focus on the safeguarding of wharves and railheads across the County to enable the ongoing importation of marine dredged aggregates, crushed rock and other minerals by sea and rail, rather than by road.

Water

- Water scarcity is set to become a greater problem in coming years as a result of population growth, climate change and the need to comply with the requirements of the Water Framework Directive.
- Groundwater and surface water pollution from a range of sources is evident across much of Kent.

Waste

- Amounts of household waste generated in Kent have fallen steadily over the last few years. Almost half (47%) is recycled, but the 50% target in 2021 was not quite met. The target for landfill reduction (no more than 2%) continued to be surpassed. The remainder of Kent's Local Authority Collected Waste was incinerated with energy recovery.
- It is anticipated that Commercial and Industrial waste will continue to increase.
- Kent remains net self-sufficient in waste management capacity.
- Illegal waste disposal continues to be an issue across Kent, creating major health and safety issues.

3.6. Characteristics of Areas Likely to be Significantly Affected

The SEA Directive requires that the appraisal describes the characteristics of areas likely to be significantly affected by an MSP updated to include the nominated site. In this case, areas likely to be affected are in the vicinity of each of the four nominated or allocated sites.

The nominated extension to Hermitage Quarry is on land designated as either grade 2 agricultural land (very good) or ancient replanted woodland. Some of the land is also designated as a Local Wildlife Site, some contains biodiversity priority habitats and some has local landscape significance. It is underlain by aquifers and has groundwater vulnerability, but low flood risk. There are a number of residential dwellings in proximity to the site and several listed buildings, and there may be below-ground palaeolithic interest. There is a Public Right of Way that crosses the site, and it is adjacent to a SSSI of geomorphological importance. Three AQMAs are fairly close to the site.

Site M3 (Chapel Farm) is a previously unworked site rather than an extension to an existing site, situated in countryside to the south east of Lenham between junctions 8 and 9 of the M20. The site is an area of open landscape rising from Lenham Heath Road towards the A20 and is within the setting of the Kent Downs AONB. The site is grade 2 agricultural land and is adjacent to ancient woodland, priority habitats with notable species, and two Local Wildlife Sites. Footpaths cross the site. There are a small number of residential dwellings and listed buildings in proximity to the site. The site overlies an aquifer and is partly in a Source Protection Zone 3 for a public water abstraction borehole. It also overlies a length of the River Stour. Sewerage infrastructure crosses the site, and a wastewater treatment works is adjacent. Any planning application must be accompanied by adequate proposals to show the sewerage infrastructure will not be adversely affected.

Site M10 (Moat Farm) is an extension to existing operations situated in countryside to the north of Five Oak Green near Tonbridge and the River Medway. It is predominantly arable fields (predominantly grade 3b) surrounded by hedgerows and ditches, potentially with notable species and with an area of ancient woodland to the north of the site. Footpaths cross the site and there is a residential property near the site. It is located in Green Belt and an area of flood risk. The site overlies an aquifer and lies partially within a groundwater source protection zone. The Alder Stream and smaller ditches run through the site.

Site M13 (Stonecastle Farm Quarry Extension) is in countryside to the north west of Five Oak Green near Tonbridge, adjacent to the River Medway. It is a large arable field (predominantly grade 3b) with hedgerows within and surrounding the site, adjacent to a Local Wildlife Site and ancient woodland. There are areas of biodiversity priority habitat within and adjacent to the site which have the potential to contain notable species. A public right of way runs near to the site. The site is within the Green Belt and an area of flood risk and extends into groundwater source protection zones. There is a listed building near to the site access, and a low potential for archaeological or other historic remains onsite.

3.7. Areas of Particular Environmental Importance

Kent contains a number of designated sites of international nature conservation importance. In addition, there are further sites outside Kent but within 10km of the county boundary. These sites are listed in the SA Scoping Report. There are two sites that are within 10km of the nominated additional site:

- North Downs Woodland SAC at 6.2km
- Peters Pit SAC at 6.5km

The importance of each of these sites is described below.

North Downs Woodland SAC

This site consists of mature beech forests and yew woods on steep slopes. The stands lie within a mosaic of scrub, other woodland types and areas of unimproved grassland on thin chalk soils. The beech and yew woodland is on thin chalk soils and where the ground flora is not shaded dog's mercury predominates. Associated with it is stinking iris and several very scarce species such as lady orchid and stinking hellebore. The chalk grassland, on warm south-facing slopes, is dominated by upright brome and sheep's-fescue but supports many other plants which are characteristic of unimproved downland, including the nationally rare ground pine.

Peters Pit SAC

Peter's Pit is an old chalk quarry with adjoining soil-stripped fields on the North Downs, with scattered ponds situated amongst grassland, scrub and woodland. The ponds have widely fluctuating water levels and support large breeding populations of great crested newt. The site has an undulating terrain in which many rain-fed ponds, of various sizes, have developed. Those which dry up early in the season are of less

interest, but five ponds are sufficiently large to support very substantial populations of amphibians, particularly the great crested newt. The value of the site for newts is enhanced by the presence, around the edges and between the ponds, of areas of scrub with loose rock which serve as day and winter refuges. Aquatic vegetation provides shelter in the pond environment.

Habitats Regulations Assessment

Given the distance of the nominated additional mineral site from each of these SACs, it is not likely to have any impacts on either SAC and therefore a Habitats Regulations Assessment is not considered necessary.

Regarding the three already allocated sites, these were subject to a Habitats Regulations Assessment prior to their allocation within the adopted MSP. This concluded that none of the three sites were likely to have significant effects on any Natura 2000 site and therefore were screened out from any further assessment.

4. How has the Plan developed up to this point?

4.1. The History of the KMWLP, MSP and SA

The KMWLP was adopted in 2016, following the legally required stages of drafting, consultation and review. The KMWLP is a high-level document which describes:

- the overarching strategy and planning policies for mineral extraction, importation and recycling, and the waste management of all waste streams that are generated or managed in Kent, and
- the spatial implications of economic, social and environmental change in relation to strategic minerals and waste planning.

The adopted KMWLP identifies and sets out the following subjects for the period up to, and including, the year 2030:

- the long-term Spatial Vision and Strategic Objectives for Kent's minerals and waste;
- the delivery strategy for minerals and waste planning that identifies how the objectives will be achieved in the plan period;
- two areas where strategic mineral and waste development may occur;
- the development management policies that will be used when the County Council makes decisions on planning applications; and
- the framework to enable annual monitoring of the policies within the Plan.

Alongside the process of the development of the 2016 KMWLP, an SA was undertaken. As part of this process, a series of reports were published, including a Scoping Report and a final SA Report:

- Kent Minerals and Waste Development Framework SA Scoping Report, Scott Wilson, March 2010
- Sustainability Appraisal of the Kent Minerals and Waste Local Plan: SA Report, URS, July 2014[11]

The Scoping Report set out an appraisal framework to be used to assess the effect of the KMWLP and the reasonable alternatives to its proposals on sustainable development in Kent and beyond, the results of which were set out in the SA Report.

Following the adoption of the KMWLP in July 2016, further assessments suggested that the level of waste management capacity required to maintain net self-sufficiency had changed. It was therefore expedient to undertake an early partial review of the KMWLP to amend several of the policies relating to waste management. At the same time policy concerned with safeguarding mineral resources and waste and

[11] https://www.kent.gov.uk/__data/assets/pdf_file/0016/15415/Kent-Minerals-and-Waste-Plan-2013-30-Sustainability-Appraisal.pdf

mineral infrastructure was amended to ensure its effectiveness. Alongside the Early Partial Review of the KMWLP, a separate but linked Mineral Sites Plan was developed, which identified and allocated a number of sites for mineral extraction.

Both of these documents – the Early Partial Review and the Mineral Sites Plan - were subject to SA. Separate Scoping Reports and SA Reports were produced for each of the Early Partial Review and the Mineral Sites Plan as follows:

- Sustainability Appraisal of the Kent MWLP Partial Review: Scoping Report, Amey, November 2017;
- Sustainability Appraisal of the Kent Minerals Sites Plan-Making Process, Amey, November 2017;
- Sustainability Appraisal Report – SA of the draft Early Partial Review of the Kent Minerals and Waste Plan: Main Modifications Consultation, Amey, November 2019;
- Sustainability Appraisal Report – SA of the draft Kent Mineral Sites Plan: Main Modifications Consultation, Amey, November 2019.

The Scoping Reports for these SA processes adapted the SA framework used in the earlier SA of the adopted 2016 KMWLP. This was to reflect updates to the policy context relevant to the plans since the KMWLP was adopted and changes in the baseline data describing sustainability conditions in Kent.

4.2. The Current Review of the KMWLP

The National Planning Policy Framework (2021) (NPPF) and legislation require that Local Plans should be reviewed to assess whether they need updating at least once every five years. Having been adopted five years ago, the Kent Minerals and Waste Local Plan has been reviewed to assess whether updates to the Plan are required.

The review considered whether the Vision, Strategic Objectives and policies of the Plan are still consistent with national policy and local context and whether the policies have been effective in achieving the intended outcomes relating to the use of land for minerals and waste development in Kent.

National Planning Practice Guidance (PPG) states that "The review process is a method to ensure that a plan and the policies within remains effective". The PPG also sets out what authorities should consider when determining whether a Plan or policies should be updated. Information relevant to this KMWLP Review includes:

- Conformity with national planning policy;
- changes to local circumstances;
- success of policies against indicators in the KMWLP;
- significant economic changes that may impact on viability; and,

- whether any new social, environmental or economic priorities may have arisen.

The review considered each of the Vision, the Strategic Objectives and the 52 policies within the KMWLP in turn. It identified the need for changes to the wording of both the Vision and some of the Strategic Objectives to ensure that these remain current and reflective of recent changes. The majority of policies within the KMWLP are also proposed for amendments of different kinds and for various reasons, as well as various amendments to the supporting text and contextual chapters (1 and 2).

Alongside the preparation of the updated KMWLP, an SA process has commenced, beginning with the preparation of a Scoping Report[12]. The proposed updates to the KMWLP were published for a Regulation 18 consultation in December 2021 and the Scoping Report was also published for consultation at the same time.

As a result of the consultation, it became clear that the timeframe covered by the KMWLP needed to be extended to ensure it continues to cover a 15 year period (to 2038). The extended time period means that additional permitted reserves of crushed rock are needed in order to maintain a 10 year landbank. In addition, some other amendments to the KMWLP were incorporated at that time.

A second Regulation 18 consultation was undertaken on the updated KMWLP to incorporate the extended timeframe and additional amendments in December 2022. An SA was carried out of the amended KMWLP and an SA Report[13] published alongside this second (2022) Regulation 18 consultation.

Following the second Regulation 18 consultation, some further small amendments are proposed to the draft updated KMWLP, on London's waste and policy CSW5. A third Regulation 18 consultation is being carried out concurrently with this Regulation 18 consultation on a draft MSP updated to include the nominated site and is accompanied by an SA Report[14] of the draft updated KWMLP as at April 2023.

4.3. The Draft Updates to the MSP

Updates to the adopted MSP, which would allocate one or more additional sites need to be considered as this would provide greater certainty that additional permitted reserves of crushed rock will be secured and the 10 year landbank can be maintained. An SA is required to be carried out on a draft MSP updated to include a site (or sites) for hard rock, the first stage of which was a Scoping Report[15] published for consultation in October 2022.

A number of comments on the Scoping Report were received from consultees, which have been taken into account in the SA process. Appendix A summarises these comments and the response of the SA to them.

[12] Sustainability Appraisal of Updates to the Kent Minerals and Waste Local Plan 2013-30 in Light of the Five Year Review: Scoping Report, Amey, October 2021
[13] Sustainability Appraisal of Updates to the Kent Minerals and Waste Local Plan 2013-30 in Light of the Five Year Review: Sustainability Appraisal Report, Amey, August 2022
[14] Sustainability Appraisal of Updates to the Kent Minerals and Waste Local Plan 2013-30 in Light of the Five Year Review: Sustainability Appraisal Report, Amey, April 2023
[15] Updates to the Kent Mineral Sites Plan: Sustainability Appraisal Scoping Report, Amey, August 2022

Alongside the consultation on the Scoping Report, a Call for Sites was undertaken by SCC, seeking proposals for sites for inclusion within an updated MSP. One site was submitted during the Call for Sites, an extension to the existing permitted quarry at Heritage Quarry. This site is nominated for inclusion in the MSP by the site promoter and this draft SA has been undertaken of an MSP updated to include the nominated site. This report presents the process, findings and recommendations arising from the SA of an MSP updated to include the nominated site to accompany the Regulation 18 public consultation on these updates.

4.4. Difficulties Encountered

A number of difficulties were encountered in undertaking the appraisal:

- **Data.** A common problem affecting SA is the availability and reliability of data. Although data has been collected to illustrate a number of the conditions and trends relevant to the SA of the updated KMWLP, some data sets are more useful than others, and some data sets are known to be old, incomplete or unreliable. In some cases, no data is available. It is therefore almost impossible to quantify effects with certainty. The SA has relied on technical assessments produced by other organisations, either by the promoter of a site or their agents/consultants or on information provided by consultees in previous applications for development at Hermitage Quarry, and on information provided in the Inspector's Report[16] on the inquiry into the application for the Westerly Extension to Hermitage Quarry which was subsequently approved by the Secretary of State in 2013. It is understood that the Council intends to undertake Detailed Technical Assessment of the site and information obtained from these assessments will be used to update this SA.
- **Uncertainty.** Until planning applications are submitted and full operational details and an Environmental Statement are provided, it is not possible to be certain how significant the impacts will be, what measures are proposed for mitigating those impacts and whether impacts can be successfully mitigated. For a site to be allocated in the MSP it will be required to be compliant with the policies in the KMWLP, but it has not been assumed that this will be sufficient to guarantee no adverse impacts. The SA makes recommendations for mitigation of such impacts, including where this should be addressed within planning applications when sufficient technical detail will need to be made available.

[16] Report to the Secretary of State for Communities and Local Government, The Planning Inspectorate, March 2013

5. How has the appraisal at this current stage been undertaken [Sustainability Appraisal Methodology]

5.1. SA Framework and Sustainability Objectives

Following due diligence in terms of the context and baseline conditions, the framework and sustainability objectives for this draft SA of an MSP updated to include the nominated site have been developed from the frameworks used for earlier SAs of the KMWLP and MSP, most recently the SA of the Regulation 18 draft of the KMWLP five year review and update in 2022. The framework was published for consultation in the SA Scoping Report and is shown in table 5 below. This incorporates several additions to the SA Framework, shown in italics in table 5, which were added for the SA of the updates to the KMWLP in light of the five year review or in response to comments on the SA Scoping Report.

Table 5 SA Framework

Sustainability Objectives		Detailed considerations
1	Biodiversity	Ensure that development will not impact on important elements of the biodiversity resource and where possible contributes to the achievement of the Kent BAP and other strategies – Add to the biodiversity baseline by creating opportunities for targeted habitat creation (which, ideally, contributes to local or landscape scale habitat networks). – Avoid hindering plans for biodiversity conservation or enhancement – Support increased access to biodiversity – *Provide a net gain in biodiversity value*
2	Climate change	Address the causes of climate change through reducing emissions of greenhouse gases through energy efficiency and energy generated from renewable sources – Promote sustainable design and construction of facilities and support wider efforts to reduce the carbon footprint of minerals and waste operations. *Promote climate change adaptation*
3	Community and well-being	Support efforts to create and sustain sustainable communities, particularly the improvement of health and well-being; and support the delivery of housing targets – Help to redress spatial inequalities highlighted by the Index of Multiple deprivation. – Help to tackle more hidden forms of deprivation and exclusion, such as that which is experienced in urban and coastal areas and particular socio-economic groups within communities. – Ensure that the necessary aggregates are available for building, and that the necessary waste infrastructure is in place to support housing and economic growth – Ensure that minerals and waste development does not contribute to poor air quality with particular reference to PM2.5 and NOx – Protect and enhance public rights of way and access – Protect local green space

		– *Avoid loss of tranquillity*
4	Sustainable economic growth	Support economic growth and diversification – Support the development of a dynamic, diverse and knowledge-based economy that excels in innovation with higher value, lower impact activities – Stimulate economic revival and targeted employment generation in deprived areas
5	Flood risk	Reduce the risk of flooding and the resulting detriment to public wellbeing, the economy and the environment – Ensure that development does not lead to increased flood risk on or off site – Seek to mitigate or reduce flood risk through developments that are able to slow water flow and promote groundwater recharge
6	Land	Make efficient use of land and avoid sensitive locations – Make best use of previously developed land – Avoid locations with sensitive geomorphology – Seek to safeguard the best and most versatile agricultural land and recognise its economic and other benefits - Prevent inappropriate development in the Green Belt
7	Landscape and the historic environment	Protect and enhance Kent's countryside and historic environment – Protect the integrity of the AONBs *and their setting* and other particularly valued or sensitive landscapes – Take account of the constraints, opportunities and priorities demonstrated through landscape characterisation assessments and other studies at the landscape scale. – *Avoid light pollution* – Protect important heritage assets and their settings, as well as take account of the value of the character of the wider historic environment
8	Transport	Reduce and minimise unsustainable transport patterns and facilitate the transport of minerals and waste by the most sustainable modes possible – Minimise minerals and waste transport movements and journey lengths; and encourage transport by rail and water. – Ensure that minerals and waste transport does not impact on sensitive locations, including locations already experiencing congestion and locations where planned growth or regeneration is reliant on good transport networks.
9	Water	Maintain and improve the water quality of the Kent's rivers, ground waters and coasts, and achieve sustainable water resources management – Ensure that minerals and waste development seeks to promote the conservation of water resources wherever possible particular reference to abstraction. – Avoid pollution of ground or surface waters, particularly in areas identified as being at risk or sensitive
10	*Waste*	*Ensure the sustainable management of waste* *– Manage waste in accordance with the waste hierarchy* *– Prevent adverse effects from waste on human health and the environment* *– Ensure waste is managed as near as possible to its place of production*

5.2. Applying the Framework

5.2.1. How the Appraisal Has Been Carried Out

The SA is required to undertake an appraisal of an MSP updated to include the nominated site. The nominated new site has been subject to assessment using the SA framework set out in section 5.1 (see table 5). An assessment matrix has been drafted and is presented in Appendix B and the results are summarised in Section 6.1.

The SA must also appraise the existing allocated sites as these would also be included in an update to the MSP. These sites were appraised in the SA of the currently adopted MSP during its development, the results of which were set out in the SA Report accompanying that Plan, published in November 2020. This appraisal work has been reviewed and updated where appropriate, including to incorporate the more recent additions to the appraisal framework highlighted in table 5.

The appraisal of sites has considered a range of different types of effects as required by Annex I of the SEA Directive. The type of effects identified are indicated in the tables in Appendix B. Factors taken into consideration were:

- the expected scale of the effects or the degree to which the effects are likely to contribute to the achievement of the SA objective in the county overall;
- the certainty or probability that the effect is likely to occur as a consequence of the development of the site;
- whether the effects would be permanent or reversible;
- whether the effect will occur as a direct result of the MSP or not, in other words whether the MSP is key for achieving or controlling effects;
- whether the effect is more strongly dependent on other interventions or other factors; and
- how important the objective is to the scope of the MSP.

The SA identifies whether effects are positive, negative, nil or uncertain. The following symbols are used in this report to indicate the impact or impacts and their relative significance. Where more than one effect is predicted, multiple symbols are given separated by '/'. In order to determine the significance of effects, the appraisal has followed the criteria for determining significance as set out in Annex II of the SEA Directive.

Table 6 Effects Symbols

Type of impact	Symbol
significant positive effect	++
some positive effect	+
no effect	0
some adverse effect	-
significant adverse effect	- -
uncertain effect	?

Effects are identified in the short, medium and long term. To make this assessment, the short term has been chosen as being within the first 5 years of adoption of an updated MSP, the medium term is considered to be the remainder of the Plan period for an updated MSP and the long term is after the end of the Plan period of an updated MSP.

An assessment has also been made of the probability of the identified effect occurring (low, medium or high), whether the effect is direct or indirect (i.e. primary or secondary), and whether the effect is temporary or permanent indicated by whether or not the effect could be reversed.

Cumulative and synergistic effects are discussed in Section 6.3.

The appraisal has assessed the likely effects arising from adoption of an updated MSP and considered whether there is scope to make recommendations for measures to prevent, reduce and as fully as possible offset any significant adverse effects of implementing an MSP updated to include the nominated site. These recommendations are made in the tables in Appendix B of this report.

Any planning applications for the development of sites on land allocated in the MSP will be required to comply with policies in the KMWLP if they are to be granted planning consent. These include development management policies in the KMWLP to manage and mitigate the impacts of development. For the allocated sites, development management criteria have been imposed in the adopted MSP to mitigate or avoid adverse impacts of development in these locations. In undertaking the appraisal, it has been assumed that any mitigation that has already been required by these criteria will be implemented to address the potential impacts of development. For the nominated site at Hermitage Quarry, it is assumed that any mitigation already proposed by the site proposer will be implemented. It is further assumed that if no mitigation is required for the allocated sites or has been proposed for the nominated site, then the potential effects are unmitigated at this stage. In order to comply with development management policies in the KMWLP, it is expected that sites will be required to provide additional mitigation where necessary or desirable, but no assumptions have been made as to what that mitigation would be and whether it would be sufficient to address impacts.

5.2.2. SA of Alternatives to an MSP Updated to Include the Nominated Site

The SA is required to appraise reasonable alternatives to an MSP updated to include the nominated site, including the possibility of a 'do nothing' option. No other site for the extraction of hard rock has been identified or was nominated during the Call for Sites undertaken in 2022, therefore there are no alternative sites within Kent that could be considered. However, an alternative could be not to allocate the site but instead rely on imports of hard rock from outside of the county, which may come into Kent by sea, rail or road. This has therefore been appraised against the SA framework, as an alternative to allocating the nominated site. The detailed results are set out in Appendix C and summarised in Section 6.2.

6. Sustainability Appraisal Findings and Recommendations

6.1. SA of an MSP Updated to Include the Nominated Site

The SA has appraised the nominated site for the likely impacts on sustainable development policy objectives. It has also reviewed and updated the appraisal of existing allocated sites in the adopted MSP. The methodology and assumptions used in undertaking the appraisal are set out in Section 5.

The appraisal has assessed the likely effects arising from development at each of the sites. The detailed findings of the SA of sites are set out in Appendix B. Where appropriate, for each individual site and each effect identified, mitigation is recommended to address the effects and where possible avoid or minimise potential adverse effects. The findings of this SA of draft updates to the MSP, including the nominated extension to the existing site at Hermitage Quarry and the existing three allocated sites, are set out in table 7. Discussions of the findings of the SA of draft updates to the MSP follow table 7, along with recommendations for mitigation of effects. Further detail on mitigation is provided in Appendix B.

Table 7: Summary of Findings of SA of draft MSP Overall

	Sustainability Objective									
Site	1 Biodiversity	2 Climate change	3 Community and wellbeing	4 Sustainable economic growth	5 Flood risk	6 Land	7 Landscape and the historic environment	8 Transport	9 Water	10 Waste
Land to the south and west of Hermitage Quarry	-/+	?	0/?	++/-	0	-/0	-/?/+	?	?	+
M3 Chapel Farm	+	-	-/?	++/-	0	-	-/0	?	0	0
M10 Moat Farm	+	0	0/-	++/-	?	?	-/0	0/?	-	0
M13 Stonecastle Farm Quarry	+	0	0	++/-	?	0/?	?	0/?	0	0
Overall impacts	**+**	**-/?**	**-/?**	**++/-**	**?**	**-/?**	**-/?/+**	**?**	**0**	**+**

Impacts of New Site

Allocation of the nominated site would ensure the continued local supply of hard rock as a material to support economic growth, in particular via its use as a construction aggregate. It would provide support for local jobs within the mineral industry and help to avoid increased transport costs for hard rock. It would

ensure the availability of Kentish ragstone for use in building restoration projects, which has qualities not available in stone from elsewhere.

There are some residential dwellings in proximity to the site nominated to the south and west of Hermitage Quarry, the closest being 100-150m away along North Pole Road, on Sweets Lane and at Manor Farm to the north of the site. There are more dwellings to the east of the site, to the south west and to the west. There is the potential for impacts on these nearby dwellings from dust, noise, blasting, visual intrusion and light. Adequate mitigation of the impacts must be incorporated into proposals for site operations in accordance with KMWLP Policy DM 11 Health and Amenity.

The southern part of the site is designated as ancient replanted woodland, which would be lost to development. The biodiversity value of such ancient woodland principally resides in the soil[17] and therefore restoration plans should include stripping and stockpiling of the soil and its use in restoration. The agricultural land in the northern part of the site is grade 2 (very good). The soil from this area should be required to be stripped, stockpiled and used for restoration.

There are multiple patches of deciduous woodland priority habitat within the southern part of the site and the wooded part of the site forms part of Oaken Wood Local Wildlife Site (LWS), which would be lost to development, also potentially fragmenting remaining parts of the woodland and any woodland created as part of the restoration of existing workings. Plans are to restore the site to native deciduous woodland to provide a net gain in biodiversity value. Conditions should be imposed on development so that: the sequence of working the site preserves connectivity within the woodland; translocation of important species is undertaken where possible; and restoration of the site is to native deciduous woodland. Sufficient mitigation should be provided to avoid adverse impacts (if achievable) in accordance with KMWLP Policies DM 2 Environmental and Landscape Sites of International, National and local Importance, Policy DM 3 Ecological Impact Assessment and DM 19 Restoration, Aftercare and After-use. In the policies of the emerging updated KMWLP, a net gain in biodiversity will be required.

Public Right of Way path MR108 crosses the site, running for about 2km across the site. In addition, there are several tracks through Oaken Wood which may be used for recreation by walkers and riders. These would be subject to diversions which, in accordance with KMWLP policy DM 11 Health and Amenity, must preserve the connectivity of routes and made safe for all users.

The site is 3.9km from the Kent Downs AONB. Although the site is visible from the AONB, it is likely that any visual impacts will be limited. If the site is worked sequentially with the existing operations, impacts are unlikely to be significantly greater than current impacts, and in the long term will be nil. Conditions should be imposed such that the site is worked sequentially with existing operations.

[17] Inspector's report on Westerly Extension, para 7.37

The Maidstone Landscape Character Assessment[18] identifies Oaken Wood as a particular landscape type providing a strong sense of place and local distinctiveness. Landscape impacts from extraction could be screened but will not be minor change and will not preserve the continuity of the coppice, therefore adverse impacts are likely.

The 2022 planning permission states that there should be a daily maximum combined total of 800 HGV movements a day within a single calendar month, and no higher than 900 on any one day. If this is maintained over the life of the new site, then the proposal will not generate extra vehicle movements than the previous permission and impacts on the nearby AQMAs, the local road network and on greenhouse gas emissions are unlikely to increase. Any planning permission should require to be conditioned to similar levels of HGV movements.

There are listed buildings in proximity to the site, the closest approximately 350m from the site and a further 14 within 1km. It is possible that extraction at the site could have adverse impacts on one or more of these listed buildings, although the separation distances would suggest that any impacts would be minor. In accordance with KMWLP DM 5 Heritage Assets any planning application should demonstrate that the impacts on landscape and on heritage assets in the vicinity of the nominated site can be appropriately mitigated.

Although there are no designated heritage assets within the nominated site, there is potential for significant archaeology to be present. Specialist geo-archaeological and palaeolithic assessments should be required with any planning application and the historic environment should be part of any EIA. In accordance with KMWLP DM 6 Historic Environment Assessment, any planning application should be accompanied by an assessment of the archaeological value of the site and a proposed plan for preserving remains in situ where possible or removing and conserving remains offsite.

The site is underlain by principal and secondary bedrock and superficial aquifers. It is classed as having medium and medium-high groundwater vulnerability in the north of the site and high groundwater vulnerability in the south and east of the site and lies within a Source Protection Zone 3. There is the potential for impacts on water, although if conditions are imposed similar to the existing operations on the depth of working in relation to the water table, adverse impacts are unlikely.

Impacts of an MSP Updated to Include the Nominated Site

Each of the sites contain or are adjacent to some form of biodiversity asset or biodiversity value and impacts are possible in each case. Planning applications are required to fully assess the impacts on biodiversity, to provide mitigation to ensure no unacceptable adverse impacts and to provide a net gain in biodiversity. Restoration proposals at three of the sites aim to restore the site to biodiversity habitat which will help to mitigate any potential loss.

The Minerals Sites Plan is likely to increase emissions of greenhouse gases overall by generating additional

[18] Maidstone Landscape Character Assessment, Maidstone Borough Council and Jacobs, March 2012 amended July 2013

HGV movements and increasing the energy requirements for mineral processing on site. However, these are insignificant when considered in the context of emissions from the county as a whole.

Some negative impacts are possible on community wellbeing, mainly due to the potential for negative impacts on residential amenity from operations and transport, and also on the diversion of footpaths and loss of tranquillity. However, development management criteria require mitigation to adequately minimise impacts from dust, noise, vibration, light and visual impacts and cumulative impacts are not likely to be significant.

The Minerals Sites Plan will help to contribute to economic growth by providing a supply of minerals to support construction and potentially other economic sectors that depend on aggregates and by supporting the retention of jobs in the mineral industry within Kent. By facilitating the extraction of primary aggregates, the Minerals Sites Plan is exploiting a non-renewable resource, which cannot be considered sustainable.

Two of the minerals sites lie within Flood Zone 3. In these cases, it must be demonstrated that development can take place without adversely affecting flood risk and where possible contributing to a reduction in overall flood risk.

Two of the minerals sites contains soil which is classed as the best and most versatile agricultural land, although restoration to agricultural land is proposed for one of these and therefore the impact on soil quality is not likely to be significant for this site. Two of the sites lie within the Metropolitan Green Belt, in which case it must be demonstrated that operations will not constitute inappropriate development or constitute very special circumstances. Given that the sites will be restored to wetland habitat, lasting cumulative impacts on the Green Belt are not envisaged.

There is the potential for the sites to have limited impacts on landscape and on the historic environment. However, it will be possible to provide mitigation such that the significance of impacts is minimised in most instances. However, the site at Hermitage Quarry will have impacts on local landscape character that are unlikely to be mitigated. Adverse impacts on the AONBs are not likely to be significant.

Minerals sites generate vehicle movements accessing and leaving the sites. The majority of these are HGV movements and it is estimated that these will range between 4 movements per hour to 8 movements per hour depending on the site. In addition, staff vehicles will access the sites, around an estimated 10 movements per day. For sites M10 and M13, operations are planned to run sequentially with existing extraction in the locality so that the impacts from vehicles are likely to be no greater than existing impacts. If the new site at Hermitage Quarry is worked sequentially with the existing operations, vehicle movements are likely to be no greater than existing. The scale of the cumulative impact of an MSP updated to include the nominated site overall is not expected to be great given the predicted number of movements and the context of all traffic movements in the county. Because of the location of the existing sites allocated, and the site nominated for allocation, it is unlikely that a Minerals Sites Plan that included these sites would support the use of sustainable modes of transport for minerals, although the KMWLP safeguards railheads

and wharves to support rail and water transport of minerals.

Each of the currently allocated mineral sites have the potential for significant impacts on hydrology/hydrogeology and water quality. The nominated site at Hermitage Quarry is unlikely to affect hydrology/hydrogeology or quality. Development management criteria for the allocated sites require assessment and mitigation of impacts and the cumulative impacts from all allocated and nominated sites in the Minerals Sites Plan are not expected to be significant for the county as a whole.

6.2. SA of the Alternative to Site Allocation

The alternative to allocation of the land south and west of Hermitage Quarry would be to rely on imports of hard rock from outside of Kent. This alternative has been appraised against the SA framework and an assessment made of the likely impacts on sustainability objectives. The detailed results are set out in Appendix C and summarised below.

Table 8: Summary of Appraisal of Alternative

	Sustainability Objective									
	1 Biodiversity	2 Climate change	3 Community and wellbeing	4 Sustainable economic growth	5 Flood risk	6 Land	7 Landscape and the historic environment	8 Transport	9 Water	10 Waste
Impacts of alternative	?	-	?	-	?	?	-/?	-	?	0

Discussion

Data from the Aggregate Minerals Survey 2019[19] indicates that all of the hard rock sourced from Kent is destined for markets in the south east of England, with 40-50% of that within Kent and Medway. Hard rock consumed within Kent and Medway is also imported from elsewhere, with 50-60% of that coming from outside England and Wales. As an alternative to sourcing hard rock from within Kent, clearly importation of hard rock to meet local needs in Kent and Medway the wider South East of England will increase the need for the transport of mineral and associated emissions to air. Minerals may be transported by rail, sea or road, the likelihood of which will vary with the source of the mineral. If the mineral is transported by road, there is a greater likelihood of negative impacts on air quality and negative impacts may be caused on congestion, noise and disturbance, depending on route and distance. The overall balance of impacts is not

[19] https://www.gov.uk/government/collections/minerals

known, as the likely sources and modes of transport are also unknown, but the balance is likely to be negative.

Importation of hard rock to meet local needs in Kent and the wider south east of England is likely to have impacts on climate change from the increased need for transport of mineral. If this is imported by rail or sea, the amount of greenhouse gas emissions emitted per tonne/km will be less than if it comes by road[20]. Whilst emissions per tonne/km are lower for maritime and rail transport, the total distance transported is likely to lead to higher emissions overall, although the overall balance of emissions is not known with certainty as the quantities of mineral likely to be sourced from different locations is unknown.

Importation of hard rock from elsewhere in the UK is likely to have adverse economic impacts from increased transport costs affecting the cost of the mineral. Around 60 direct jobs would be lost in Kent with the closure of Hermitage Quarry, with loss of indirect support for a further 100 jobs.

Kentish ragstone is used in heritage restoration projects, with qualities not available from imported stone, therefore adverse impacts on the built historic environment are likely.

Importation from elsewhere in the UK may have adverse impacts on communities and their wellbeing in proximity to the sites where extraction takes place, from impacts on amenity and potentially also from impacts on air quality, but this is dependent on where the mineral comes from and the conditions at those sites. The control of impacts at those sites is a matter for the relevant Mineral Planning Authorities.

Similarly, importation of hard rock from elsewhere in the UK may have impacts on biodiversity and geodiversity, flood risk, land and soil quality, landscape, historic assets and water quality, but all of these impacts are dependent on where the mineral comes from and the conditions at those sites. The control of impacts at those sites is a matter for the relevant Mineral Planning Authorities.

6.3. Cumulative Effects and Inter-Relationship Between Effects

The SEA Directive requires assessment of an additional level of impacts in addition to straightforward direct impacts. These are specified as "secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative". The following approach has been taken to identifying such impacts.

A number of different types of impact are set out in European Commission guidance:

- separate developments causing the same impact – cumulative;
- different impacts acting together on a receptor e.g. air pollution and land take – cumulative;
- plan impacts which give rise to other indirect impacts – secondary; and
- different impacts which together give rise to yet another impact – cumulative and secondary.

There is therefore a need to consider both secondary and cumulative impacts in the appraisal. Secondary

[20] https://www.eea.europa.eu/publications/rail-and-waterborne-transport

impacts were considered as an integral part of the main appraisal work, and this is indicated in the appraisal matrices in Appendix B where impacts are either direct or indirect i.e. secondary. Certain other attributes are common to all types of impact: these are timescales (i.e. short, medium and long-term impacts), reversibility (i.e. permanent or temporary impacts) and whether the impacts are positive or negative. These attributes were also all considered as integral aspects of impact assessment, and this is similarly indicated in the appraisal matrices in Appendix B. Cumulative impacts are discussed in this section of the SA Report.

There are two types of situation that could give rise to cumulative impacts:

- the same effect arising from two or more different sources; and
- different effects where there is a relationship between the effects and potentially an interaction.

Synergistic effects are a type of cumulative impact. These are effects where the cumulative impact may be greater or smaller than the sum of the separate effects. Cumulative impacts were considered in the appraisal in two ways:

- the potential for different developments to give rise to the same type of effect; and
- the potential for interaction between different types of effect.

In order to assess the cumulative impacts arising from an updated MSP that included the existing allocated sites and the nominated site, the appraisal considered the overall effect of these sites as a whole on each of the SA objectives. The results of this are summarised in table 7 and discussed in section 6.1.

Cumulative Impacts in Combination with Other Plans and Strategies

The appraisal has considered the potential for effects arising from other plans and strategies which, in combination with effects arising from an updated MSP that included the existing allocated sites and the nominated site, may give rise to significant impacts. The results of the review of other plans and strategies and their potential to give rise to cumulative effects is set out below.

The following key plans/programmes have been identified that could give rise to significant cumulative impacts together with the updated KMWLP:

- Kent Minerals Sites Plan 2013-30, Kent County Council, September 2020
- Kent Joint Municipal Waste Management Strategy 2018/19 to 2020/21, Kent Resource Partnership, 2019
- Local Transport Plan 4: Delivering Growth Without Gridlock 2016-2031, Kent County Council
- Core Strategy Review, Folkestone and Hythe District Council, March 2022
- Maidstone Borough Local Plan, Maidstone Borough Council, October 2017
- Local Plan Review: Draft Plan for Submission (Regulation 19), Maidstone Borough Council, October 2021

- Lenham Neighbourhood Plan 2017-31, Lenham Parish Council, July 2021
- Adopted Local Plan 2030, Ashford Borough Council, February 2019
- Core Strategy, Tonbridge and Malling Borough Council, September 2007
- Core Strategy DPD, Tunbridge Wells Borough Council, June 2010
- Submission Local Plan 2020-2038, Tunbridge Wells Borough Council, October 2021
- Dartford Core Strategy, Dartford Borough Council, September 2011
- Dartford Local Plan to 2037: Pre-Submission (Publication) Document, Dartford Borough Council, September 2021
- Canterbury District Local Plan, Canterbury City Council, July 2017
- Draft Canterbury District Local Plan, Canterbury City Council, October 2022
- Core Strategy, Dover District Council, February 2010
- Dover District Local Plan to 2040: Regulation 19 Submission, Dover District Council, October 2022
- Gravesham Local Plan Core Strategy, Gravesham Borough Council, September 2014
- Core Strategy, Sevenoaks District Council, February 2011
- The Swale Borough Local Plan, Swale Borough Council, July 2017
- Local Plan, Thanet District Council, July 2020
- The London Plan 2021, London Assembly, March 2021

The relevant sections of each of these with the potential to give rise to cumulative effects is summarised in Appendix D, noting the relevant minerals sites affected. An assessment has been made of the potential contribution to significant cumulative effects in combination with the Minerals Sites Plan and this is discussed below.

The main area where there is the potential for cumulative effects to arise in combination with the Minerals Sites Plan is in relation to impacts on the road network and in some cases also on air quality. All minerals sites are near to areas proposed for housing and economic growth, in some cases significant levels of growth. The growth provided for in plans and strategies will give rise to additional demands for access to road space with related impacts on air quality, noise, congestion and reduced amenity for communities near the road network. In most cases, plans are also in place for measures to manage this demand, including through infrastructure improvements and promotion of more sustainable modes of transport, although the degree to which such measures will offset the increased demand is uncertain. In all cases, it is likely that the demand for access to the road network from planned housing and economic growth will be significantly greater than the demand from minerals developments.

There is synergy between an MSP that included the existing allocated sites and the nominated site and local plans and strategies, in that all local plans provide for significant amounts of housing and employment growth and this will be assisted by an MSP that included the existing allocated sites and the nominated site as this would help ensure that there are sufficient available reserves of the minerals required by the construction sector and for other economic uses.

There are likely to be cumulative pressures on biodiversity due to the development of some greenfield sites for housing and economic uses and the loss of sites of biodiversity value to minerals developments, but it is uncertain what the scale of these cumulative impacts will be and what their significance is.

Proposed measures in the Local Transport Plan are likely to increase capacity on the M20 and M26 and promote greater use of the rail network. Together these measures are likely to reduce the potential for cumulative impacts on the M20 and potentially alleviate air quality impacts on the AQMA. The balance of effects in combination with the transport impacts of an updated MSP that included the existing allocated sites and the nominated site is not known.

KCC maintains a list[21] of existing operational and inactive waste and minerals sites. Some of these could contribute to cumulative effects in combination with the nominated site and existing allocated sites in the MSP. Impacts are most likely to be on the road network, with the potential for adverse effects on air quality, congestion and amenity for communities in the vicinity of the roads. There could be related cumulative impacts on biodiversity in the locality from reduced air quality and disturbance. However, there is no evidence to suggest that the activities at these sites would have any significantly different impact from other commercial and industrial operations in the vicinity of the nominated site and allocated sites. In any event, none of the existing waste and mineral sites will generate significant vehicle movements on the local road network and therefore significant cumulative impacts are not expected in combination with the nominated site and existing allocated sites in the MSP.

Interrelationship Between Effects

The SEA Directive requires the appraisal to consider the interrelationship between the significant effects of an MSP updated to include the nominated site. This has been done as an integral part of the appraisal of the policies and options, and examples of this can be found throughout Section 6 and Appendix B of this report. The main interrelationships found through the appraisal are highlighted below.

Impacts on biodiversity can arise through habitat loss, disturbance from noise and human activity, changes to the water environment, reductions in air quality and deposition of dust and other pollutants. These impacts have the potential to act in synergy with each other such that multiple pressures have a greater total impact than the sum of individual impacts. These impacts also have the potential to negatively affect human amenity, along with visual impacts.

Restoration of mineral sites will be of benefit to biodiversity by ensuring connectivity and protection and enhancement of green infrastructure. It will also help to protect landscape quality and help to promote the wellbeing of communities.

Changes in air quality can have significant consequences for human health and biodiversity, while

[21] https://www.kent.gov.uk/about-the-council/strategies-and-policies/environment-waste-and-planning-policies/planning-policies/minerals-and-waste-planning-policy/monitoring-and-assessment

improvements in air quality arising from more sustainable transport patterns will benefit human health and vulnerable species and ecosystems.

Management of flood risk and avoiding increases can have economic benefits by protecting homes and businesses from having to deal with the financial consequences of flooding.

The promotion of sustainable economic growth through provision of minerals will help to sustain jobs and incomes and the wellbeing of communities. The economy and communities will be supported by the securing of mineral resources for construction and industry prior to other development.

7. How might we monitor the Plan's impacts?

As required by the SEA Directive, a number of recommendations are made for indicators to monitor the likely significant impacts of an MSP updated to include the nominated site. These are set out in Table 9 corresponding to the relevant impacts identified and summarised in the preceding chapters of this report.

One of the aims of monitoring as specified by the SEA Directive is to identify unforeseen adverse effects in order to be able to take appropriate remedial action. To enable this to be done, recommendations are also made in Table 9 for monitoring potential sustainability impacts that are not expected to occur as foreseen by the appraisal.

An Annual Monitoring Report is produced to monitor the implementation of the KMWLP, and the recommendations given below for monitoring should be incorporated within this.

Table 9 Monitoring Recommendations

Sustainability Objectives		Recommended Indicators
1	Biodiversity	Area of land of biodiversity value lost to minerals development, by significance (international, national, local) Area of land proposed for habitat creation through mineral site restoration Area of land of biodiversity value created through restoration. % net gain in biodiversity value achieved through minerals and waste development
2	Climate change	No practical indicators identified.
3	Community and well-being	Metres/number of public rights of way lost to minerals development Metres/number of public rights of way proposed through restoration of minerals sites. Hectares of designated open space lost to minerals development. Hectares of accessible open space proposed for creation in mineral site restoration. Hectares of accessible open space created by mineral site restoration.

4	Sustainable economic growth	Sales (tonnage) of minerals by type and end use
5	Flood risk	Number of flood events near to mineral sites Number of restoration plans proposing restoration to wetland/open water
6	Land	Hectares of good quality agricultural land lost to minerals development Hectares of good quality agricultural land proposed in restoration plans. Hectares of good quality agricultural land created by restoration. Hectares of Green Belt lost to development Area of land of geodiversity value lost to minerals development, by significance
7	Landscape and the historic environment	Hectares of land of landscape value taken for minerals development Number of heritage assets lost to development, by type
8	Transport	Tonnage of minerals transported by road Tonnage of minerals transported by rail Accidents on road network involving mineral site traffic. Imports and exports (tonnages) of minerals across county boundary.
9	Water	No of water pollution events linked to mineral sites.
10	Waste	No practical indicators identified

8. References

Related to SA of KMWLP (adopted 2016):

AECOM, July 2016 – Sustainability Appraisal (SA) of the Kent MWDF – SA Adoption Statement

Scott Wilson, March 2010 – SA Scoping Report – Introductory Paper URS, 2011 – Interim SA Report (Assessment of Preferred Options)

URS, November 2013 – Sustainability Appraisal (SA) of the Kent Minerals and Waste Local Plan - SA Report (Consultation Draft)

URS, July 2014 – Kent County Council: Draft Minerals and Waste Local Plan 2013-30 - Habitats Regulations Assessment

URS, July 2014 – Sustainability Appraisal (SA) of the Kent Minerals and Waste Local Plan – SA Report Non-Technical Summary

Related to SA of Minerals Sites Plan and Early Partial Review (adopted 2020):

Scoping Report: Sustainability Appraisal of the Kent Minerals Sites Plan-Making Process, Amey, November 2017

Sustainability Appraisal Report: SA of the draft Early Partial Review of the Kent Minerals and Waste Plan 2013-30 Main Modifications Consultation, November 2019

Sustainability Appraisal Report: SA of the draft Minerals Sites Plan Main Modifications Consultation, November 2019

Other references:

UK Government (2004) Environmental Assessment of Plans and Programmes Regulations 2004

UK Government (2012) The Town and Country Planning (Local Planning) (England) Regulations 2012

UK Government (2018) The National Planning Policy Framework

Kent County Council (2016) Kent Minerals and Waste Local Plan 2013-30

Kent County Council (2020) Kent Minerals and Waste Local Plan 2013-30

Kent County Council (2020) Minerals Sites Plan 2013-30

Kent Resource Partnership (2019) Joint Municipal Waste Management Strategy (KJMWMS) 2018/19 to 2020/21

Kent County Council (no date), Local Transport Plan 4: Delivering Growth Without Gridlock 2016-2031

Ashford Borough Council (2019) Ashford Local Plan;

Canterbury City Council (2017) Canterbury District Local Plan;

Canterbury City Council (2022) Draft Canterbury District Local Plan;

Dartford Borough Council (2011); Dartford Core Strategy;

Dartford Local Plan to 2037: Pre-Submission (Publication) Document, Dartford Borough Council, September 2021

Dover District Council (2010) Core Strategy;

Dover District Council (October 2022) Dover District Local Plan to 2040: Regulation 19 Submission;

Gravesham Borough Council (2014) Gravesham Local Plan Core Strategy;

Maidstone Borough Council (2017) Maidstone Borough Local Plan;

Local Plan Review: Draft Plan for Submission (Regulation 19), Maidstone Borough Council, October 2021

Lenham Neighbourhood Plan 2017-31, Lenham Parish Council, July 2021

Sevenoaks District Council (2011) Core Strategy;

Folkestone and Hythe District Council (2022) Core Strategy Review;

Swale Borough Council (2017) The Swale Borough Local Plan

Local Plan, Thanet District Council, July 2020

Core Strategy, Tonbridge and Malling Borough Council, September 2007

Tunbridge Wells Borough Council (2010) Core Strategy Development Plan Document;

Submission Local Plan 2020-2038, Tunbridge Wells Borough Council, October 2021

The London Plan 2021, London Assembly, March 2021

Appendix A: SA Scoping Report Consultation Responses

Consultee	Comment	Response
Tunbridge Wells Borough Council	TWBC has the following comments to make on the SA scoping report: 1. Section 3.2. Considering the context of the plan, the minerals and waste data from 2018 appears to be older than is perhaps necessary. Is there any more recent data to report? 2. Sections 3.10 and 3.13 – the hyperlinks are missing (as a side note, it is uncertain whether this format of presenting hyperlinks will pass accessibility checks) 3. Section 4.2 (National Policy) is missing reference to the Environment Act 2021 which has elements relevant to waste disposal. It is noted this is referenced in the KMWLP itself such as under Policy CSW4 4. Section 4.3 (Local Policy) – it is suggested that references should be made to the AONB Management Plan, South-East Water Resource Management Plan, and the Kent Biodiversity Strategy in this section 5. Sections 5.1 and 5.2 – it is suggested that reference should be made to climate change adaptation as well as mitigation	The most recent data available is for 2020 and this is included in this section of the Scoping Report. The hyperlinks appear to be working in the published report. Comment on accessibility is noted and will be addressed in future published reports. Section 4.2 includes a summary of the Environment Act 2021. The Kent Biodiversity Strategy is included in Appendix A. The other two strategy documents have been reviewed and taken into account in defining the policy context. Climate change adaptation has now been added to the Appraisal Framework.
Tunbridge Wells Borough Council	Section 3.3 – it is suggested that references should be made to the AONB Management Plan, South-East Water Resource Management Plan, and the Kent Biodiversity Strategy in this section.	The Kent Biodiversity Strategy is included in Appendix A. The other two strategy documents have been reviewed and taken into account in defining the policy context.
Environment Agency	Within Section 4 on Policy Context, the paragraph describing flood risk mitigation, we encourage the inclusion of 'nature based solutions' as well as 'green infrastructure' to	Section 4 summarises policy documents, including in this case the NPPF, which does not make reference to nature-based solutions. Also note Planning Practice

Consultee	Comment	Response
	cover a broad set of options and to help meet carbon-reduction targets as well as reduce flood risk.	Guidance does not make reference to 'nature based solutions' in the context of flooding.
Tunbridge Wells Borough Council	TWBC is generally supportive of the information set out in both the Draft Site Identification and Selection Methodology and Sustainability Scoping Reports. However, for clarity, consider it would be beneficial to define and give examples of what is meant by 'hard or crushed rock' aggregates as this is not very clear in either the Site Selection Methodology nor the Kent Mineral and Waste Local Plan itself (including the glossary).	Definition of the term has been included in the SA Report.

Appendix B: Detailed Findings and Recommendations of SA of Sites

Key:

Impacts	Probability of effects	Direct or indirect effects	Reversibility
++ significant positive effect	L low probability	D direct effect	Y reversible effect
+ some positive effect	M medium probability	I indirect effect	N not reversible i.e. permanent effect
0 no effect	H high probability		
- some adverse effect			
- - significant adverse effect			
? uncertain effect			
Where multiple symbols are shown separated by '/', this is to indicate that more than one type of effect is predicted.			

Land to the South and West of Hermitage Quarry

	Sustainability Objective	Comments
1	Biodiversity	Short: -/+ | Med: -/+ | Long: ?/+ | Prob: H | Dir/Ind: D | Rev?: Y The southern part of the site is designated as Plantation on Ancient Woodland Soils (PAWS), which is former ancient woodland which, in this case, has been replanted with sweet chestnut coppice. This part of the PAWS would be lost to development. The biodiversity value of such woodland principally resides in the ancient woodland soil[22] and therefore restoration plans should include stripping and stockpiling of the soil and its use in restoration.

[22] Inspector's report on Westerly Extension, para 7.37

<table>
<tr><td></td><td></td><td>There are multiple patches of deciduous woodland priority habitat within the southern part of the site, which would be lost to development. It is proposed to restore the site to native deciduous woodland and conditions should be imposed to secure this.

Oaken Wood SSSI lies about 100m from the extraction area in the southwestern corner of the site. The citation states that "Oaken Wood is a key geomorphological site. It provides the best example in Britain of ridge and trough topography produced by intense cambering and gulling during the Pleistocene (tilting and cracking of surface rock outcrops by periglacial processes or deformation of underlying weaker strata). The ridge crests rise up to 8 m above the level of the trough floors, which extend for about 0.5 km in an east- west direction. This unusual type of topography is confined to the Maidstone area and the north Cotswolds and is most spectacularly developed at Oaken Wood." The SSSI will not be lost to extraction, although it will come close to the SSSI. A planning condition should be imposed such that the SSSI is preserved.

The wooded part of the site forms part of Oaken Wood Local Wildlife Site (LWS). This part of the LWS would be lost to development, also potentially fragmenting remaining parts of the woodland and any woodland created as part of the restoration of existing workings. Conditions should be imposed on development so that the sequence of working the site preserves connectivity within the woodland and translocation of important species is undertaken where possible.

The site is 6.2km from North Downs Woodland SAC and 6.5 km from Peters Pit SAC. Ditton Quarry Local Nature Reserve is 1.6km from the site. Adverse effects on these assets are unlikely.

Sufficient mitigation should be provided to avoid adverse impacts (if achievable) in accordance with KMWLP Policies DM 2 Environmental and Landscape Sites of International, National and local Importance, Policy DM 3 Ecological Impact Assessment and DM 19 Restoration, Aftercare and After-use. In the policies of the emerging updated KMWLP, a net gain in biodiversity will be required.</td></tr>
<tr><td>2</td><td>Climate change</td><td>
<table>
<tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr>
<tr><td>?</td><td>?</td><td>0/+</td><td>L</td><td>D</td><td>N</td></tr>
</table>
The site has been nominated as an extension to existing operations, although no information has yet been given on the phasing of the new workings in relation to the existing operations. If the site will be worked following completion of extraction of the existing workings, there will be no change to climate change impacts, provided there is no significant increase in HGV</td></tr>
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<table>
<tr><td></td><td></td><td>movements. If the site will be worked in parallel to the existing operations, there will be an increase in HGV movements and onsite processing which will have a negative impact on climate change, albeit small when considered in terms of the emissions in the county as a whole. Conditions should be imposed on any planning approval that the site will be worked sequentially with existing operations. Restoration to native woodland provides opportunities for climate change mitigation.</td></tr>
<tr><td rowspan="2">3</td><td rowspan="2">Community and well-being</td><td>
<table>
<tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr>
<tr><td>0/?</td><td>0/?</td><td>0</td><td>M</td><td>D</td><td>Y</td></tr>
</table>
</td></tr>
<tr><td>Public Right of Way path MR108 crosses the site, running for about 2km across the site. In addition, there are several tracks through Oaken Wood which may be used for recreation by walkers and riders. These would be subject to diversions in accordance with KMWLP policy DM 14. In accordance with KMWLP Policy DM 11 Health and Amenity, diverted paths must preserve the connectivity of routes and made safe for all users, including equestrian users.

There is an AQMA along the M20 between junctions 4 and 5, between New Hythe Lane and Hall Road, and a second AQMA from between junction 5 and 6 extending east beyond junction 7. It is likely that HGV and other traffic from the site would use these sections of the M20. There is another AQMA along Hermitage Lane from the hospital to the A26 and extending both east and west along the A26. Site traffic may use these roads, although HGVs will travel north to the M20 due to weight restrictions on Hermitage Lane to the south of the site entrance. The 2022 planning permission states that there should be a daily maximum combined total of 800 HGV movements a day within a single calendar month, and no higher than 900 on any one day. Provided the sites are worked sequentially, HGV movements are unlikely to increase significantly above this rate. Any planning permission should require to be conditioned to similar levels of HGV movements. An assessment of air quality impacts submitted with the 2022 planning application concluded that air quality impacts from these HGV movements were not significant.

There are residential areas in proximity to the site, including about 10 dwellings 100-150m away along North Pole Road, on Sweets Lane and at Manor Farm to the north of the site. There are more dwellings (approximately 30 or so) between 150m and 350m to the east of the site along North Pole Road and North Street, and more dwellings (<10) about 500m to the south west along North Pole Road. There are other dwellings (approximately 20-30) 350m to the west of the site at East Malling Heath. There is the potential for impacts on nearby residential areas from dust, noise, blasting, visual intrusion and light. Adequate</td></tr>
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<table>
<tr><td></td><td></td><td>mitigation of the impacts must be incorporated into proposals for site operations in accordance with KMWLP Policy DM 11 Health and Amenity.</td></tr>
<tr><td rowspan="2">4</td><td rowspan="2">Sustainable economic growth</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>++/-</td><td>++/-</td><td>++/-</td><td>H</td><td>D</td><td>N</td></tr></table></td></tr>
<tr><td>The site would make a contribution to the local supply of hard rock as a material to support economic growth, in particular via its use as a construction aggregate. The use of non-renewable resources does not constitute the most sustainable route to growth, although local supply will help to avoid increased transport costs.
Development of site would preserve jobs within Kent. Over 60 people are currently employed directly at Hermitage Quarry, with over 100 people employed indirectly through the quarry, from hauliers to suppliers[23].</td></tr>
<tr><td rowspan="2">5</td><td rowspan="2">Flood risk</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>0</td><td>0</td><td>0</td><td>H</td><td></td><td></td></tr></table></td></tr>
<tr><td>The site lies within flood zone 1, therefore adverse effects on flood risk are unlikely.</td></tr>
<tr><td rowspan="2">6</td><td rowspan="2">Land</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>-/0</td><td>-/0</td><td>?/0</td><td>H</td><td>D</td><td>N</td></tr></table></td></tr>
<tr><td>The agricultural land in the northern part of the site is grade 2 (very good). The soil from this area should be required to be stripped, stockpiled and used for restoration. Current proposals are to restore the site to mixed native woodland and meadow, so it is unlikely that the land will be returned to agricultural use.
The nominated site is adjacent to a SSSI designated for its important geomorphology, although this is unlikely to be lost through extraction which will not encroach on the SSSI although it will come close. A planning condition should be imposed such that the SSSI is preserved.</td></tr>
<tr><td>7</td><td></td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr></table></td></tr>
</table>

[23] https://www.gallagher-group.co.uk/hermitage-quarry

		-/?/+	-/?/+	0/-/+	M	D	Y/N
	Landscape and the historic environment	The site is 3.9km from the Kent Downs AONB. Although the site is visible from the AONB, it is likely that any visual impacts will be limited. If the site is worked sequentially with the existing operations, impacts are unlikely to be significantly greater than current impacts, and in the long term will be nil. The site should be required to be worked sequentially with existing operations. The Maidstone Landscape Character Assessment[24] identifies Oaken Wood as a particular landscape type. The description states that "The continuity of sweet chestnut coppice woodland, the lack of development and the sheer uniformity of the woodland provides a strong sense of place and local distinctiveness. However, because of the low visibility afforded by the woodland, minor change can be well screened and the overall sensitivity of the landscape is therefore moderate." Landscape impacts from extraction could be screened but will not be a minor change and will not preserve the continuity of the coppice, therefore locally-significant adverse impacts are likely. The nearest Scheduled Monument is 1.2 km to the north at East Malling which is part of an Iron Age enclosure and a minor Roman villa. There are two other Scheduled Monuments to the south of the site, Teston Bridge 1.8km away and East Farley Bridge 2.1km away, over the Medway. These monuments are not likely to be affected by development on the site. There are listed buildings in proximity to the site. The site is 550m from two grade II listed buildings to the east, the Oast House and Broumfield. It is 650m from two grade II listed buildings to the south east, St Cuthberts Cottage and Bridge Cottage, and Old Hall and wall enclosing garden to east. It is 350m from one grade II listed building to the south, Old Cyder House Cottages and 650m from one listed building to the south west, Woodlands Cottage and a cottage adjoining to the left. A further nine listed buildings lie 800m-1km away to the north west. It is possible that extraction at the site could have adverse impacts on one or more of these listed buildings, although the separation distances would suggest that any impacts would be minor. In accordance with KMWLP DM 5 Heritage Assets any planning application should demonstrate that the impacts on heritage assets in the vicinity of the nominated site can be appropriately mitigated. There are sites recorded on the Historic Environment Record within the nominated site and some very close to the boundary. Although there are no designated heritage assets within the nominated site, there is potential for significant archaeology and						

[24] Maidstone Landscape Character Assessment, Maidstone Borough Council and Jacobs, March 2012 amended July 2013

<table>
<tr><td></td><td></td><td>there is a possible 19th century shooting box which might merit preservation in situ. Specialist geo-archaeological and palaeolithic assessments should be required with any planning application and the historic environment should be part of any EIA. The Inspector's report on the Westerly Extension application noted that although there were no surface features of archaeological interest on that site, there was some potential for palaeolithic interest. In accordance with KMWLP DM 6 Historic Environment Assessment, any planning application should be accompanied by an assessment of the archaeological value of the site and a proposed plan for preserving remains in situ where possible or removing and conserving remains offsite.
The site would ensure continued supply of Kentish ragstone, a material used in the restoration of historic buildings, with qualities not available with stone from elsewhere.</td></tr>
<tr><td rowspan="2">8</td><td rowspan="2">Transport</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>?</td><td>?</td><td>?</td><td>M</td><td>D</td><td>Y</td></tr></table></td></tr>
<tr><td>The 2022 planning permission states that there should be a daily maximum combined total of 800 HGV movements a day within a single calendar month, and no higher than 900 on any one day. If this is maintained over the life of the new site, then the proposal will not generate extra vehicle movements than the previous permission. Provided the sites are worked sequentially, HGV movements are unlikely to increase significantly above this rate. Any planning permission should require to be conditioned to similar levels of HGV movements. Transport impacts will cease when the site is restored.</td></tr>
<tr><td rowspan="2">9</td><td rowspan="2">Water</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>?</td><td>?</td><td>?</td><td>M</td><td>D</td><td>N</td></tr></table></td></tr>
<tr><td>The site is underlain by principal and secondary bedrock and superficial aquifers. It is classed as having medium and medium-high groundwater vulnerability in the north of the site and high groundwater vulnerability in the south and east of the site and lies within a Source Protection Zone 3. There is the potential for impacts on water, although if conditions are imposed similar to the existing operations on the depth of working in relation to the water table, adverse impacts are unlikely. In accordance with KMWLP Policy DM 10 Water Environment, developments must not result in the deterioration of physical state, water quality or ecological statusof any water resource and waterbody. Operations should be conducted appropriate for the management of the</td></tr>
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		water environment to ensure there are no adverse impacts with a particular emphasis on water levels, as per the current arrangements at the existing site. Relevant planning conditional controls could be imposed on any specific application for depth of excavations, de-watering of extraction cells, pollution control methods and ways of working to safeguard against potential impacts on water quality.
10	Waste	<table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>0</td><td>+</td><td>+</td><td>H</td><td>D</td><td>N</td></tr></table> Restoration of the site will be achieved through the importation of inert waste. Policy CSW 11 in the KMWLP provides for the deposit of inert waste which is not part of a disposal operation, therefore it will be managing waste at a higher level of the waste hierarchy than disposal.

Site M3: Chapel Farm

	Sustainability Objective	Comments
1	Biodiversity	<table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>0</td><td>+</td><td>?</td><td>M</td><td>D</td><td>N</td></tr></table> The site has Ancient Woodland (Roughett Shaw) immediately adjacent to the access route and therefore the proposal must ensure that the ancient woodland area will not be subject to any negative impact upon this protected habitat. Development management criteria require a buffer to be maintained around the woodland and protected trees and therefore adverse effects are unlikely. Priority habitats are adjacent to the site. Due to the potential for ground nesting breeding birds and protected/notable species within the woodland, hedgerow and water bodies (great crested newts, reptiles, bats and breeding birds) there will be a need for ecological surveys to be submitted within any planning application to demonstrate that the impacts can be appropriately mitigated.

<table>
<tr><td></td><td></td><td>Development management criteria require a detailed ecological appraisal which ensures no unacceptable adverse impacts. The restoration scheme should demonstrate that it is increasing the area of suitable habitat for biodiversity. Development management criteria for the site require a net gain in biodiversity to be secured. The timeframe for this benefit to be delivered is not known, but is unlikely to be in the short term.

Lenham Heath & Chilston Park Local Wildlife Site is adjacent to the allocated site, immediately to the south of Lenham Heath Road. Bull Heath Pit Local Wildlife Site is also adjacent, situated to the east of Bull Hill. Proposals are required to be assessed for any potential adverse impacts on these wildlife sites, including through disturbance caused by noise and traffic. Appropriate mitigation should be provided to protect the LWSs.

The allocated site is in proximity to two sites that have been designated as SSSI, Lenham Quarry and Hart Hill (at 800m and 2.5km respectively). Given the distance from the proposed workings, adverse effects are unlikely.</td></tr>
<tr><td>2</td><td>Climate change</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>-</td><td>-</td><td>+</td><td>H</td><td>D</td><td>N</td></tr></table>The site is a new site rather than a phased extension to existing workings and therefore will add to emissions from HGV movements and other site traffic and on-site processing. This will have a negative impact on climate change, albeit small when considered in terms of the emissions in the county as a whole. Restoration to agricultural use will provide minor benefits for climate change adaptation.</td></tr>
<tr><td>3</td><td>Community and well-being</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>-/?</td><td>-/?</td><td>0</td><td>M</td><td>D</td><td>Y</td></tr></table>Several paths cross the site, including the important Stour Valley Walk, and will be affected by the proposed workings. These are required to be diverted to maintain the connectivity of footpaths in the area although routes will be longer and less convenient. Appropriate screening is required to be provided to mitigate the visual impacts to users of the paths, and if necessary buffers should be provided to ensure safety. Some tranquillity along the footpaths will be lost although effects are unlikely to be significant in the area, given the site's location adjacent to two railway lines and the M20. A lighting, noise, dust, and vibration</td></tr>
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<table>
<tr><td></td><td></td><td>management plan should be completed, setting out how unacceptable impacts will be avoided and therefore significant impacts are unlikely. Residential properties near to the site require screening from visual impacts with appropriate planting.
The site is rural and remote from any significant area of residential development or AQMAs. There are a small number of individual air quality sensitive receptors within 120m of the site: along Lenham Heath Road, to the north of the Lenham Heath Road and dwellings at the end of Mount Castle Lane to the north east. These are unlikely to be at risk of impacts from dust but there may be health risks from HGV emissions. Mitigation against any potential adverse impacts from quarry operations are considered to be fully achievable and should be demonstrated in any planning application. However, the Maidstone AQMA could be a constraint to development depending on the type and number of HGVs that may travel through it. A planning application should be accompanied by a Transport Assessment which assesses the scale of impact on the AQMA. A routeing strategy is unlikely to be able to avoid increasing HGV use of the M20.</td></tr>
<tr><td rowspan="2">4</td><td rowspan="2">Sustainable economic growth</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>++/-</td><td>++/-</td><td>++/-</td><td>H</td><td>D</td><td>N</td></tr></table></td></tr>
<tr><td>The site would make a contribution to the supply of soft sand as a material to support economic growth, although the use of non-renewable resources is a less sustainable route to growth than using recycled aggregate.
Development of site would preserve jobs within Kent, both directly and indirectly.</td></tr>
<tr><td rowspan="2">5</td><td rowspan="2">Flood risk</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>0</td><td>0</td><td>0</td><td>M</td><td>D</td><td>N</td></tr></table></td></tr>
<tr><td>The site does not lie within a flood zone. However, any planning application for an area greater than 1 hectare must be accompanied by a site-specific Flood Risk Assessment to demonstrate no adverse effect on flood risk and where practicable contribute to an overall reduction in flood risk.</td></tr>
<tr><td>6</td><td>Land</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>-</td><td>-</td><td>0</td><td>H</td><td>D</td><td>N</td></tr></table></td></tr>
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<table>
<tr><td></td><td></td><td>Agricultural Land Classification maps produced by Natural England show the land at the site to be grade 2 agricultural land. If the site is worked this will be lost for the duration of the works. The restoration of the site would be required to be sensitive to the agricultural afteruse of the site in accordance with Policy DM 19 Restoration, Aftercare and After-use. Restoration to agriculture using existing soils is required by the MSP and therefore in the long term impacts are likely to be neutral.</td></tr>
<tr><td>7</td><td>Landscape and the historic environment</td><td>
<table>
<tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr>
<tr><td>-/0</td><td>-/0</td><td>?</td><td>M</td><td>D</td><td>N</td></tr>
</table>
The site lies within the setting of the Kent Downs AONB. The site and the proposed haul route are particularly prominent from the AONB to the north, including from an extensive tract of the North Downs Way national trail and other public rights of way and roads to the north of the A20. The site is an area of open landscape rising from Lenham Heath Road towards the A20. Although it is well screened from Lenham Heath Road to the south by dense hedges and trees, the other boundaries are in open farmland and this should require screening. The presence of minerals extraction within a hitherto unaffected site would be very likely to have an adverse effect upon landscape character locally due to loss of field boundaries; removal of vegetation cover; change in landform; the introduction of plant and equipment and light and the resultant change to the visual context of the landscape. Potential visibility from the higher land within the AONB to the north could also have indirect effects on character in that area. The Landscape and Visual Impact Assessment of the allocated site concludes that visual effects on local receptors would be significant but that visual impacts on the AONB would not be significant. Development management criteria require mitigation of visual impacts, although residual impacts on local receptors are not known.

There are listed properties close to the site, including the Grade II* Royton Manor, together with important archaeological remains of Royton Chapel which is Grade II listed, and other Grade II listed properties of Chapel Mill, and Mount Castle Farm to the north. To the south is the historic Park & Garden of Chilston Manor which is Grade I listed, but this is cut off from Lenham Heath Road and the site by the M20 and HS1 railway. The setting of these assets may be adversely affected by mineral operations, although a Cultural Heritage Appraisal in March 2018 concluded no significant adverse effects are likely. Any planning application is required to demonstrate no adverse impacts on these assets and their settings in accordance with Policy DM 5 Heritage Assets and therefore adverse impacts are unlikely.</td></tr>
</table>

<table>
<tr><td></td><td></td><td>The Lenham Conservation Area is remote from the site and local topography means the proposals should have little impact on it.</td></tr>
<tr><td rowspan="2">8</td><td rowspan="2">Transport</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>?</td><td>?</td><td>?</td><td>M</td><td>D</td><td>N</td></tr></table></td></tr>
<tr><td>It is proposed to construct a new junction on the A20 to access the site. A haul route will need to be constructed that can accommodate the necessary vehicle movements. It is proposed to work the site following completion of the nearby Lenham Quarry and that HGV movements will be no greater than existing. A planning application is required to be accompanied by a transport assessment that demonstrates the road network can accommodate the required vehicle movements safely and without detriment to the network, in accordance with Policy DM 13 Transportation of Minerals and Waste. This should be required to consider cumulative impacts with proposed housing growth in the Lenham area in the Maidstone Borough Local Plan. Transport impacts will cease when the site is restored.</td></tr>
<tr><td rowspan="2">9</td><td rowspan="2">Water</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>0</td><td>0</td><td>0</td><td>M</td><td>D</td><td>N</td></tr></table></td></tr>
<tr><td>This site overlies the Folkestone Sands aquifer and is partly in a Source Protection Zone 3 for a public water abstraction borehole. Adverse impacts from mineral operations are not expected. Development management criteria require protection of the aquifer and therefore adverse impacts are unlikely.
Sewerage infrastructure crosses the site, and a wastewater treatment works is adjacent. Any planning application must be accompanied by adequate proposals to show the sewerage infrastructure will not be adversely affected.
This site overlays a length of the River Stour at Lenham and adverse impacts from discharge, diversion of the watercourse or alteration of groundwater levels are possible. Any planning application is required to demonstrate that there will be no adverse impacts on the river and the hydraulic integrity of the river, its tributaries and aquifers will not be compromised in accordance with Policy DM 10 Water Resources.</td></tr>
</table>

10	Waste	Short | Med | Long | Prob | Dir/Ind | Rev? 0 | 0 | 0 | H | | No impact on sustainable waste management objectives.

Site M10: Moat Farm

	Sustainability Objective	Comments
1	Biodiversity	Short | Med | Long | Prob | Dir/Ind | Rev? 0 | + | ? | H | D | N Being predominantly arable fields surrounded by hedgerows and ditches, the site has the potential to support breeding and/or wintering birds, reptiles, great crested newts and water voles. The area of ancient woodland to the north of the site requires an appropriate buffer. Any planning application is required to be accompanied by evidence to demonstrate that appropriate mitigation can be implemented to avoid adverse impacts on protected/notable species and the ancient woodland. Development management criteria for the site require a net gain in biodiversity to be secured. The timeframe for this benefit to be delivered is not known, but is unlikely to be in the short term.
2	Climate change	Short | Med | Long | Prob | Dir/Ind | Rev? 0 | 0 | 0/+ | H | D | N The site is allocated as an extension to existing operations, with phasing to work this and the allocated Stonecastle Farm site (M13) sequentially, such that they are not developed concurrently and with an extraction rate of 120,000 tonnes per annum as that which exists at the existing Stonecastle Farm Quarry site. The climate change impacts from HGVs and other vehicles

<table>
<tr><td></td><td></td><td>accessing the site and on-site processing are likely to be unchanged from current emission levels. Restoration to wetland can provide climate change adaptation benefits given the site's location within a flood zone.</td></tr>
<tr><td rowspan="2">3</td><td rowspan="2">Community and well-being</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>0/-</td><td>0/-</td><td>?/0</td><td>H</td><td>D</td><td>Y</td></tr></table></td></tr>
<tr><td>Footpaths cross the site which will be diverted during operations and possibly permanently. These footpaths should be diverted such that connectivity of the paths and safety is maintained. Development management criteria for the site require connectivity to be preserved. A lighting, noise, dust, and vibration management plan is required, setting out how unacceptable impacts will be avoided and therefore impacts on tranquillity will be minimised.

The nearest residential building is at Moat Farm and is approximately 170m from the site and which may be sensitive to deposited dust and potentially noise, vibration and visual impacts. Any planning application must show how unacceptable impacts will be avoided.

A Landscape Assessment undertaken in 2001 concluded that the visual impact of operations will be limited to adjacent footpaths. These impacts must be mitigated by planting and use of bunds around the perimeter of the working. A second assessment of landscape and visual impact was undertaken in 2018 which concluded that effects on landscape character are unlikely to be significant other than on paths in the immediate vicinity and within the site itself. Views of the site are likely to be seen from residential properties although screening is possible and should avoid significant impacts.</td></tr>
<tr><td rowspan="2">4</td><td rowspan="2">Sustainable economic growth</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>++/-</td><td>++/-</td><td>++/-</td><td>H</td><td>D</td><td>N</td></tr></table></td></tr>
<tr><td>The site would make a contribution to the supply of sharp sand and gravel as a material to support economic growth, although the use of non-renewable resources is a less sustainable route to growth than using recycled aggregate.

Development of site would preserve jobs within Kent, both directly and indirectly.</td></tr>
<tr><td>5</td><td>Flood risk</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>?</td><td>?</td><td>?</td><td>L</td><td>D</td><td>N</td></tr></table></td></tr>
</table>

<table>
<tr><td></td><td></td><td>The site lies in flood zone 3. Any planning application must be accompanied by a site-specific Flood Risk Assessment to demonstrate no adverse effect on flood risk and where practicable contribute to an overall reduction in flood risk.</td></tr>
<tr><td rowspan="2">6</td><td rowspan="2">Land</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>?</td><td>?</td><td>?</td><td>M</td><td>D</td><td>N/Y</td></tr></table></td></tr>
<tr><td>Agricultural Land Classification maps produced by Natural England show the land at the site to be grade 3 agricultural land. A survey in 1998 found the land to be grade 3b. If the site is worked this will be lost, although grade 3b land is not considered to be in the category of best and most versatile. Restoration is to wetland habitat.

The site is within the Metropolitan Green Belt. Any planning application would be required to provide evidence of the impact of operations on Green Belt objectives and the tests of what constitutes appropriate development in the Green Belt and justify why proposed development would not constitute inappropriate development and if so that there are very special circumstances that justify the acceptability of the development.</td></tr>
<tr><td rowspan="2">7</td><td rowspan="2">Landscape and the historic environment</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>-/0</td><td>-/0</td><td>?/0</td><td>M</td><td>D</td><td>Y/N</td></tr></table></td></tr>
<tr><td>A Landscape Assessment undertaken in 2001 concluded that the visual impact of operations will be limited to adjacent footpaths. A second assessment of landscape and visual impact was undertaken in 2018 which concluded that effects on landscape character are unlikely to be significant other than on paths in the immediate vicinity and within the site itself. A lighting management plan is required to show how unacceptable impacts will be avoided.

There is evidence of medieval activity outside the site to the north and west, but none within the site itself. A grade II listed building is immediately south of the site and another at Stonecastle Farm, but the listings reference the fabric of the building and not the setting, therefore significant impacts on the assets are not likely. Any planning application must be accompanied by an archaeological impact assessment of assets in the vicinity of the site and demonstrate no significant adverse effects on listed buildings and their settings and therefore adverse impacts are unlikely.</td></tr>
<tr><td>8</td><td>Transport</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr></table></td></tr>
</table>

		<table><tr><td>0</td><td>0/?</td><td>0/?</td><td>M</td><td>D</td><td>Y</td></tr></table> It is understood that access to the site will be via the existing purpose-built access currently serving Stonecastle Farm Quarry onto the A228 to the east of the site. There is the potential for the allocated site to create adverse impacts on the local highway network and junction improvements may be required. However, a Transport Statement has been produced for Stonecastle Farm which has concluded that subject to some minor repairs and routine maintenance, the existing access to the sites is acceptable to accommodate the permitted and proposed operations at Stonecastle Farm Quarry, assuming the sites (Moat Farm and Stonecastle Farm) would be worked sequentially at the same 120,000 tonnes per annum as the existing Stonecastle Farm Quarry site. It also concluded that the junction with the A228 was acceptable and the developments would not result in an unacceptable impact on the road network or safety. Phasing of the works with the existing operations should ensure that no additional HGV movements are created on the road network. Transport impacts will cease when the site is restored. Development management criteria require a transport assessment to demonstrate no unacceptable adverse impacts on the road network. This should consider cumulative impacts with any development in Capel parish proposed in the emerging Tunbridge Wells draft Local Plan.
9	Water	<table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>-</td><td>-</td><td>-</td><td>M</td><td>D</td><td>N</td></tr></table> The site overlies an aquifer and lies partially within groundwater source protection zone 3 for a public water borehole. The Alder Stream and smaller ditches run through the site. There is the potential for negative impacts on the aquifer, stream and ditches. Any planning application must be accompanied by a detailed assessment of the hydrological environment and the impacts of mineral working on it. This should include an assessment of the relationship to the previous, now flooded, excavations and should demonstrate how the restoration to wetland will preserve the integrity and function of the Alder Stream and drainage ditches on the site.
10	Waste	<table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>0</td><td>0</td><td>0</td><td>H</td><td></td><td></td></tr></table>

		No impact on sustainable waste management objectives.

Site M13: Stonecastle Farm Quarry Extension

	Sustainability Objective	Comments
1	Biodiversity	<table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>0</td><td>+</td><td>?</td><td>H</td><td>D</td><td>N</td></tr></table> The site is adjacent to the East Tonbridge Copses and Dykes and River Medway Local Wildlife Site designated for wetland features and of county importance. Any planning application must be accompanied by an assessment of the impacts of the allocated site on the LWS, including from discharge to groundwater, dust and other discharges falling into the site and noise impacts on wildlife. Appropriate mitigation must be proposed which demonstrates that significant adverse impacts will be avoided. This is likely to include an appropriate buffer and hydrological monitoring to ensure the LWS is not affected. The southern part of the side is adjacent to ancient woodland and there is the potential for operations to adversely affect the woodland. Mitigation must be provided to prevent adverse effects, which could include provision of a suitable buffer, hydrological monitoring and noise, dust and lighting measures. The site is a large arable field with hedgerows within and surrounding the site, and with a block of woodland within the site. There is a block of deciduous woodland priority habitat within the site which will be lost. There is another area of deciduous woodland priority habitat adjacent to the site which may be indirectly adversely affected. The habitats within or adjacent to the site have potential to contain protected/notable species including bats, badgers, dormice, otters, harvest mice, reptiles, invertebrates, brown hare, great crested newts and wintering/breeding birds. Habitat within the site will be lost with a consequent negative impact on biodiversity value. There will be a need for ecological survey(s) to be carried out. Any planning application must be accompanied by ecological surveys of the biodiversity value of the site and restoration should replace and enhance the ecological interest of the site and where possible benefit the LWS.

<table>
<tr><td></td><td></td><td>There are records of Nuttall's pondweed and Crassula in the area. Operations at the site should not contribute to the spread of these species and where practical the developer should contribute to management of these invasive non-native species as part of their work at the site.

Development management criteria for the site require a net gain in biodiversity to be secured. The timeframe for this benefit to be delivered is not known, but is unlikely to be in the short term.</td></tr>
<tr><td rowspan="2">2</td><td rowspan="2">Climate change</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>0</td><td>0</td><td>0/+</td><td>H</td><td>D</td><td>N</td></tr></table></td></tr>
<tr><td>The site is allocated as an extension to existing operations, with phasing to work this and the allocated Moat Farm site (M10) to be sequential. Therefore, there would be no concurrency of operations at Moat Farm or Stonecastle Farm therefore extraction would be at the same rate of mineral extraction of 120,000 tonnes per annum (the same as the existing Stonecastle Farm Quarry site). The climate change impacts from HGVs and other vehicles accessing the site and on-site processing are likely to be unchanged from current levels. Restoration to wetland can provide climate change adaptation benefits given the site's location within a flood zone.</td></tr>
<tr><td rowspan="2">3</td><td rowspan="2">Community and well-being</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>0</td><td>0</td><td>0</td><td>H</td><td>D</td><td>Y</td></tr></table></td></tr>
<tr><td>The allocated site is unlikely to have significant impacts on health and wellbeing from dust, noise, visual amenity, light, vibration or drowning. The nearest properties are 230m from the site and screened by woodland.

The Medway Valley Walk long distance path is located north of the site but at close range views are prevented by mature woodland. There is a public right of way WT168 which crosses Tarmac land beyond the limits of extraction and this will be retained throughout. The publicly accessible visual receptors in this area with views towards the site are a limited section of Hartlake Road and the nearby public footpath. It is unlikely that there would be significant effects on residential properties given the distance from the site, or on users of the paths if the boundary vegetation is retained. Some tranquillity may be lost while the site is operational, but a lighting, noise, dust, and vibration management plan should be completed, setting out how unacceptable impacts will be avoided therefore impacts on tranquillity will be minimised.</td></tr>
</table>

4	Sustainable economic growt	<table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>++/-</td><td>++/-</td><td>++/-</td><td>H</td><td>D</td><td>N</td></tr></table> The site would make a contribution to the supply of sharp sand and gravel as a material to support economic growth, although the use of non-renewable resources is a less sustainable route to growth than using recycled aggregate. Development of site would preserve jobs within Kent, both directly and indirectly.
5	Flood risk	<table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>?</td><td>?</td><td>?</td><td>L</td><td>D</td><td>N</td></tr></table> The site lies in flood zone 3. Any planning application must be accompanied by a site-specific Flood Risk Assessment to demonstrate no adverse effect on flood risk and where practicable contribute to an overall reduction in flood risk.
6	Land	<table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>0/?</td><td>0/?</td><td>0</td><td>H</td><td>D</td><td>N</td></tr></table> Agricultural Land Classification maps produced by Natural England show the land at the site to be grade 3 agricultural land. A survey carried out in 1998 showed 81% of the land to be grade 3b and the remainder grade 2 and 3a. If the site is worked this will be lost, but as the soil is mostly grade 3b, this is not a significant adverse effect. Restoration is to landscaped lakes. The site is within the Green Belt. A planning application would be required to provide evidence of the impact of operations on Green Belt objectives and the tests of what constitutes appropriate development in the Green Belt and justify why the allocated site would not constitute inappropriate development and if so that there are very special circumstances that justify the acceptability of the development in this case.
7	Landscape and the historic environment	<table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>?</td><td>?</td><td>?</td><td>M</td><td>D</td><td>Y</td></tr></table> The allocated site lies 1.5km from the High Weald AONB but will be well-screened from the AONB if boundary vegetation is retained. However, there may be filtered views from the AONB in winter, depending on the location of the fixed plant. A lighting

<table>
<tr><td></td><td></td><td>management plan is required which sets out how unacceptable adverse impacts will be avoided.

There is a grade II listed building close to the site access, although with proposals to extract at 120,000 tonnes as existing, impacts from HGVs on this asset will be no more than current impacts. There are three grade II listings associated with Hartlake Farm to the north of the site but these are screened by dense woodland and therefore significant impacts are unlikely.

The 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 allocated site. However, an assessment of archaeological and heritage value of the site has concluded that the site has low potential for recovery of archaeological remains and that there are no significant impacts on designated or undesignated assets.</td></tr>
<tr><td rowspan="2">8</td><td rowspan="2">Transport</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>0</td><td>0/?</td><td>0/?</td><td>M</td><td>D</td><td>Y</td></tr></table></td></tr>
<tr><td>A Transport Statement has been produced which has concluded that subject to some minor repairs and routine maintenance, the existing access to the site is acceptable to accommodate the proposed operations at Stonecastle Farm Quarry, assuming the sites (both Moat farm and Stonecastle Farm) would be worked sequentially and not concurrently, at the same extraction rate of 120,000 tonnes per annum as the existing permitted Stonecastle Farm Quarry site. It also concluded that the junction with the A228 was acceptable and the developments would not result in an unacceptable impact on the road network or safety.

Development management criteria require a transport assessment to demonstrate no unacceptable adverse impacts on the road network. This should consider cumulative impacts with any development in Capel parish proposed in the emerging Tunbridge Wells draft Local Plan. Transport impacts will cease when the site is restored.</td></tr>
<tr><td>9</td><td>Water</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>0</td><td>0</td><td>0</td><td>H</td><td>D</td><td>N</td></tr></table></td></tr>
</table>

<table>
<tr><td></td><td></td><td>The allocated site extends into groundwater Source Protection Zones 1, 2 and 3 in an area important for local water supply. Further major extensions to the quarry may adversely impact water supply options. South East Water have concerns about potential impacts on groundwater quantity and quality.

A hydrological and hydrogeological appraisal has been undertaken of the potential impacts of the existing consented site which concluded adverse effects on groundwater flow and quality (this assessment accounting for the ameliorating effects of the alteration of the mode of mineral extraction from dry to wet working) and those associated with any future mineral workings within the Potential Allocation Area. The appraisal proposes mitigation measures that enables it to conclude that there are no over-riding hydrogeologically or hydrologically based reasons why the planned development should not proceed in the manner described. Development management criteria for the site require that it is demonstrated that there will be no adverse impacts on hydrology or hydrogeology, therefore adverse impacts are unlikely.

Plans for restoration should assess the proposed interface between the lakes and the adjoining River Medway, the Hammer Dyke and associated drains. Given that Stonecastle Farm is predominantly underlain by Weald Clay Formation 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 as to how the integrity of those watercourses sited on the curtilage of the workings will be retained. The development management criteria for the site requires this to be demonstrated and therefore adverse effects are unlikely.</td></tr>
<tr><td>10</td><td>Waste</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>0</td><td>0</td><td>0</td><td>H</td><td></td><td></td></tr></table>
No impact on sustainable waste management objectives.</td></tr>
</table>

Appendix C: Appraisal of Option

Key:

Impacts	Probability of effects	Direct or indirect effects	Reversibility
++ significant positive effect	L low probability	D direct effect	Y reversible effect
+ some positive effect	M medium probability	I indirect effect	N not reversible i.e. permanent effect
0 no effect	H high probability		
- some adverse effect			
- - significant adverse effect			
? uncertain effect			
Where multiple symbols are shown separated by '/', this is to indicate that more than one type of effect is predicted.			

Importation of Hard Rock

	Sustainability Objective	Comments
1	Biodiversity	Short: ? / Med: ? / Long: ? / Prob: L / Dir/Ind: I / Rev?: ? Importation of hard rock from elsewhere in the UK may have impacts on biodiversity and geodiversity, but this is dependent on where the mineral comes from and the conditions at those sites. The control of impacts at those sites is a matter for the relevant Mineral Planning Authorities.
2	Climate change	Short: - / Med: - / Long: - / Prob: L / Dir/Ind: I / Rev?: N

<table>
<tr><td></td><td></td><td>Importation of hard rock to meet local needs in Kent and the wider south east of England is likely to have impacts on climate change from the increased need for transport of mineral. If this is imported by rail or sea, the amount of greenhouse gas emissions emitted per tonne/km will be less than if it comes by road[25]. Whilst emissions per tonne/km are lower for maritime and rail transport, the total distance transported is likely to lead to higher emissions overall, although the overall balance of emissions is not known with certainty as the quantities of mineral likely to be sourced from different locations is unknown (assumed to be Oxfordshire, Somerset, Leicestershire, Scotland and Norway).</td></tr>
<tr><td rowspan="2">3</td><td rowspan="2">Community and well-being</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>?</td><td>?</td><td>?</td><td>L</td><td>I</td><td>?</td></tr></table></td></tr>
<tr><td>Importation of hard rock from elsewhere in the UK may have impacts on communities and their wellbeing in proximity to the sites where extraction takes place, from impacts on amenity and potentially also from impacts on air quality, but this is dependent on where the mineral comes from and the conditions at those sites. The control of impacts at those sites is a matter for the relevant Mineral Planning Authorities.</td></tr>
<tr><td rowspan="2">4</td><td rowspan="2">Sustainable economic growth</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>-</td><td>-</td><td>-</td><td>H</td><td>I/D</td><td>N</td></tr></table></td></tr>
<tr><td>Importation of hard rock from elsewhere in the UK is likely to have adverse economic impacts from increased transport costs affecting the cost of the mineral.
Around 60 direct jobs would be lost in Kent with the closure of Hermitage Quarry, with loss of indirect support for a further 100 jobs. Jobs would be supported at quarries outside of Kent.</td></tr>
<tr><td>5</td><td>Flood risk</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>?</td><td>?</td><td>?</td><td>L</td><td>I</td><td>?</td></tr></table></td></tr>
</table>

[25] https://www.eea.europa.eu/publications/rail-and-waterborne-transport

<table>
<tr><td></td><td></td><td>Importation of hard rock from elsewhere in the UK may have impacts on flood risk, but this is dependent on where the mineral comes from and the conditions at those sites. The control of impacts at those sites is a matter for the relevant Mineral Planning Authorities.</td></tr>
<tr><td rowspan="2">6</td><td rowspan="2">Land</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>?</td><td>?</td><td>?</td><td>L</td><td>I</td><td>?</td></tr></table></td></tr>
<tr><td>Importation of hard rock from elsewhere in the UK may have effects on land and soil quality, but this is dependent on the conditions at the sites where the mineral is sourced. The control of impacts at those sites is a matter for the relevant Mineral Planning Authorities.</td></tr>
<tr><td rowspan="2">7</td><td rowspan="2">Landscape and the historic environment</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>-/?</td><td>-/?</td><td>-/?</td><td>L</td><td>I</td><td>?</td></tr></table></td></tr>
<tr><td>Kentish ragstone is used in heritage restoration projects, with qualities not available from imported stone, therefore adverse impacts on the built historic environment are likely.
Importation of hard rock from elsewhere in the UK may have effects on landscape and the historic environment in the locality of the quarries, but this is dependent on the conditions at the sites where the mineral is sourced. The control of impacts at those sites is a matter for the relevant Mineral Planning Authorities.</td></tr>
<tr><td rowspan="2">8</td><td rowspan="2">Transport</td><td><table><tr><th>Short</th><th>Med</th><th>Long</th><th>Prob</th><th>Dir/Ind</th><th>Rev?</th></tr><tr><td>-</td><td>-</td><td>-</td><td>M</td><td>D</td><td>?</td></tr></table></td></tr>
<tr><td>Importation of hard rock to meet local needs in Kent and the wider South East of England will increase the need for the transport of mineral. The mineral may be transported by rail, sea or road, the likelihood of which will vary with the source of the mineral. There is a greater likelihood of negative impacts on air quality from increased transport and negative impacts may be caused on congestion, noise and disturbance, depending on route and distance and particularly if the mineral is transported by road.</td></tr>
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<tr><td>9</td><td>Water</td><td>
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Importation of hard rock from elsewhere in the UK may have effects on hydrology, hydrogeology and water quality, but this is dependent on the conditions at the sites where the mineral is sourced. The control of impacts at those sites is a matter for the relevant Mineral Planning Authorities.
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<tr><td>10</td><td>Waste</td><td>
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Appendix D: Contribution of Other Plans and Strategies to Cumulative Effects

Kent Minerals and Waste Local Plan (as amended by Early Partial Review), Kent County Council, September 2020

The adopted KMWLP allocates two strategic sites, one at Norwood Quarry for hazardous waste landfill and theo other at Holborough for cement works and associated mineral extraction. It also identifies the Dungness nuclear site for waste treatment and storage.

Contribution to Cumulative Effects

None of the sites within the KMWLP are close to the nominated site and existing sites allocated in the MSP, therefore cumulative impacts are not likely in combination with an MSP updated to include the nominated site.

Local Transport Plan 4: Delivering Growth Without Gridlock 2016-2031, Kent County Council

The Council's strategic transport priorities include the following:

- Enabling Growth in the Thames Estuary with a range of measures including Crossrail extension to Dartford and Ebbsfleet and an expanded Fastrack bus network.
- Bifurcation of Port Traffic: traffic for the Eastern Docks would be encouraged to use the M2/A2. Bifurcation will also facilitate growth of Whitfield, Folkestone, Ashford and Maidstone by releasing capacity on the M20.
- Port Expansion: The Western Docks will provide a cargo terminal with a port-centric distribution centre, allowing the existing cargo operations to move out of the Eastern Docks so a dedicated ferry terminal and an increase in freight vehicle space can be delivered. The Port of London has set its goal to become the busiest it has ever been by 2035, including greater use of the Thames wharves for river transport of freight that will take up to 400,000 lorries of the region's roads. The Port of Sheerness largely handles bulk goods and also has significant expansion plans. The Port of Ramsgate has potential for growth and could also contribute to the strategic priority of bifurcation.
- A Solution to Operation Stack: delivery of a Lorry Area that will reduce the need to use the M20 to queue freight vehicles during times of disruption to cross-Channel services

Transport schemes that have a countywide impact (particularly in terms of supporting sustainable travel) are:

- Kent Thameside Local Sustainable Transport Fund (£4.5m LGF funding), a capital programme of works for Dartford and Gravesham delivering schemes to promote the use of alternative modes of transport to the private car, e.g. cycle parking, cycle and walking routes and bus infrastructure.
- West Kent Local Sustainable Transport Fund (£4.9m LGF funding), a capital programme of works delivering schemes to promote the use of alternative modes of transport to the private car, including Snodland Station forecourt, Tonbridge Station access improvements, Maidstone East Station improvements and Swanley Station improvements.
- 'Smart' (managed) motorway to increase capacity on the M20 and M26.

Priorities for Maidstone include M20 junctions 3 to 5 'smart' (managed) motorway system.

Contribution to Cumulative Effects

Proposed measures are likely to increase capacity on the M20 and M26 and promote greater use of the rail network. Together these measures are likely to reduce the potential for cumulative impacts on the M20 and potentially alleviate air quality impacts on the AQMA, although the balance of effects is not known. Impacts on greenhouse gas emissions are uncertain.

Relevant minerals sites: M3, Hermitage Quarry extension

Core Strategy Review, Folkestone and Hythe District Council, March 2022

The Core Strategy Review aims to provide 13,284 new homes for the period 2019/20 to 2036/37, or 738 dwellings per year. Development within the district is directed towards existing sustainable settlements and a new sustainable garden settlement south of the M20 near Westenhanger to protect the open countryside and the coastline.

Housing will be delivered through a new sustainable, landscape-led settlement, with supporting town centre and community uses, based on garden town principles in the North Downs Area. The garden town will maximise opportunities arising from the location, access to London and continental Europe and strategic infrastructure. Housing and supporting community uses will also be delivered through growth in Sellindge.

Elsewhere in the district, priority will continue to be given to previously developed land in the Urban Area in Folkestone, for main town centre uses and housing, to enhance the town's role as a sub-regional centre, with opportunity for increased densities within the town centre and maximisation of employment opportunities at key locations.

The future spatial priority for new development in the Romney Marsh Area is on accommodating development at the towns of New Romney and Lydd, and at sustainable villages; improving communications; protecting and enhancing the coast and the many special habitats and landscapes,

especially at Dungeness; and avoiding further co-joining of settlements and localities at the most acute risk to life and property from tidal flooding.

The strategic growth of New Romney is also supported to allow the market town to fulfill its potential to sustainably provide for the bulk of the housing, community infrastructure and commercial needs of the Romney Marsh Area. Development will also be planned at other identified settlements in line with the Settlement Hierarchy sufficient to ensure the achievement of growth requirements. In particular, development which helps to maintain and support the local role of the market town of Lydd can meet priority needs.

Should development proposals come forward for the further expansion of London Ashford Airport at Lydd, the council will work with the airport, local community and other stakeholders to prepare and adopt an Action Area Plan for the site.

The Plan identifies that an element of the area allocated for the new garden settlement is protected by a minerals safeguarding designation and notes that there may be a requirement to remove the minerals prior to development. Policy SS8 requires a minerals assessment to be undertaken which examines the practicality and viability of prior extraction.

Contribution to Cumulative Effects

The development of new housing and employment sites and enhancing the vitality of New Romney, Lydd and smaller settlements in the Romney Marsh area will provide housing, employment and services for the needs of local communities. They will also contribute to increased demand for use of the road network and contribute to increased greenhouse gas emissions. Improving access to Lydd Airport for road vehicles will also increase demand for road space, although improving rail connections may help to bring about a modal shift and reduce demand for road space.

Folkestone and Hythe is sufficiently distant from the nominated site and existing sites allocated in the MSP such that site-specific cumulative impacts are not predicted in combination with an MSP updated to include the nominated site.

Development on sites that contain safeguarded mineral resources or safeguarded minerals or waste facilities will be required to demonstrate that the mineral will not be needlessly sterilised or the facilities have been fully considered and it is concluded that development would be acceptable. This will have an economic cost for the proposed development of the site which may affect the viability of development and delay its implementation. It may also delay community benefits associated with house construction or economic benefits associated with employment provision.

Maidstone Borough Local Plan, Maidstone Borough Council, October 2017

An expanded Maidstone urban area will be the principal focus for development in the borough. Approximately 1,846 new dwellings will be delivered on 23 sites, with approximately 11,400m^2 of retail

floorspace, approximately 6,000m^2 of employment floorspace and a medical campus of up to 100,000m^2 floorspace. Key infrastructure requirements include improvements to highway and transport infrastructure, including junction improvements, capacity improvements and improved pedestrian/cycle access and bus prioritisation measures.

The council and its partners will:

- Ensure the transport system supports the growth projected by Maidstone's local plan and facilitates economic prosperity;
- Deliver modal shift through managing demand on the transport network through enhanced public transport and the continued Park and Ride services and walking and cycling improvements;
- Improve highway network capacity and function at key locations and junctions across the borough;
- Improve transport choice across the borough and seek to influence travel behaviour;
- Address the air quality impact of transport.

A prestigious business park at Junction 8 of the M20 that is well connected to the motorway network will provide for a range of job needs up to 2031. The site will make a substantial contribution to the need for new office space in the borough as well as meeting the 'qualitative' need for a new, well serviced and well connected mixed use employment site suitable for offices, industry and warehousing.

Rural service centres including Harrietsham and Lenham will be a secondary focus for housing development with the emphasis on maintaining and enhancing their role and the provision of services to meet the needs of the local community. Suitably scaled employment opportunities will also be permitted, building on and expanding existing provision in these locations.

In Harrietsham, key services will be retained and supported. In addition to minor development and redevelopment of appropriate sites, approximately 242 new dwellings will be delivered on three allocated sites. Two existing sites are designated as Economic Development Areas in order to maintain employment opportunities in the locality. Key infrastructure requirements for Harrietsham include improvements to highway and transport infrastructure including improvements to the A20 Ashford Road, improvements to Church Road and the provision of additional pedestrian crossing points

At the rural service centre of Lenham, key services will be retained and supported. In addition to minor development and redevelopment of appropriate sites, approximately 155 new dwellings will be delivered on two allocated sites, Tanyard Farm and Glebe Gardens, both to the east of Lenham on the Old Ashford Road. Three existing sites are designated as Economic Development Areas in order to maintain employment opportunities in the locality. Key infrastructure requirements for Lenham include improvements to highway and transport infrastructure including junction improvements, a variety of measures to improve sustainable

transport infrastructure, and improvements to pedestrian access. The council will seek to maintain and enhance the existing retail function and supporting community uses in The Square.

Lenham is also identified as a broad location for growth for the delivery of approximately 1,000 dwellings post April 2021. Master planning of the area will be essential to achieve a high quality design and layout, landscape and ecological mitigation, and appropriate provision of supporting physical, social and green infrastructure. Housing site allocations and associated infrastructure requirements will be made through the Lenham Neighbourhood Plan or through the local plan review to be adopted by April 2021. The broad location for growth is on the east side of Lenham, between the current built up area and the Northdown Business Park on the Ashford Road to the west of mineral site M3.

The Local Plan notes safeguarded mineral areas in allocated sites and requires an assessment of viability and practicability of extraction prior to development.

Contribution to Cumulative Effects

Proposed housing and economic development in Maidstone, Lenham and Harrietsham and at junction 8 of the M20 will provide housing, employment and services to meet the needs of communities, contributing to their wellbeing. It will increase traffic on the M20 and through junction 8 of the M20, potentially in competition with the traffic accessing the mineral site. Policy on managing the transport impacts of development may help to avoid or reduce increased demand for road space. The development of new sites for housing and employment is likely to increase pressures on biodiversity. Greenhouse gas emissions will be increased.

Relevant mineral site: M3

Local Plan Review: Draft Plan for Submission (Regulation 19), Maidstone Borough Council, October 2021

There is a local housing need for 1,157 dwellings per annum in Maidstone Borough, which equates to 17,355 dwellings over the proposed 2022-37 plan period for the Local Plan Review (LPR). At Invicta Barracks, 500 units are expected to come forward during the Local Plan 2017 period (2011- 2031), with the remaining 800 units coming forward over the period 2022-2037. The remainder will be delivered as windfall sites.

The minimum floorspace required to meet need based on job growth forecasts is 101,555m^2 (gross) for employment uses over the period 2022-2037.

The plan will allocate floorspace to meet the forecast retail needs over the first 10 years of the plan period, to 2032 only. The total floorspace required is therefore 10,847m^2 to 2032.

The emphasis will be on increasing skilled employment opportunities in the borough alongside developing learning opportunities, having regard to the roles of centres across the borough and existing and improved accessibility patterns:

- Principally within the Maidstone urban area, with a particular focus on the renewal of the town centre, including the Invicta Barracks strategic development location;
- Within two new garden communities at Heathlands and Lidsing;
- With significant employment locations at the former Syngenta Works and Woodcut Farm;
- To a lesser extent at the six rural service centres of Harrietsham, Headcorn, Lenham, Marden, Coxheath and Staplehurst consistent with their range of services and role;
- Limited development at the four larger villages of East Farleigh, Eyhorne Street (Hollingbourne), Sutton Valence and Yalding; and
- To support the sustainable future of smaller villages and hamlets where appropriate.

The Council will seek to ensure that key infrastructure and service improvements needed to support delivery of the Maidstone Borough LPR are brought forward in a coordinated and timely manner. The infrastructure will support the growth projected by the Local Plan to 2031 and LPR by 2037 with a focus on large scale developments, such as proposals at the new garden communities at Heathlands and Lidsing.

Developments within, and with the potential to adversely impact the boroughs AQMA will be required to mitigate their impact, including on human health, having regard to both on-site design and travel patterns and modes of travel.

Maidstone's urban area will be revitalised by the regeneration of key commercial and residential sites and areas of existing deprivation, supported by the creation of employment opportunities, the regeneration of key sites, continued investment in the town centre and improvements to access. The town centre will be regenerated by encouraging a wide range of new development including shops, businesses, residential development, cultural and tourism facilities, and enhanced public spaces for people to enjoy and for activities that will attract residents and visitors.

A prestigious business park at Junction 8 of the M20 that is well connected to the motorway network will provide for a range of job needs up to 2037. The site will make a substantial contribution to the need for new office space in the borough as well as meeting the 'qualitative' need for a new, well serviced and well connected mixed use employment site suitable for offices, industry and warehousing, and will thereby help to diversify the range of sites available to new and expanding businesses in the borough. Redevelopment of the former Syngenta Works site near Yalding will make a significant contribution to the provision of employment uses. A number of smaller sites for employment use are allocated around the borough to accommodate a diverse range of employment types.

Heathlands Garden Community

A new Heathlands Garden Community will provide approximately 5,000 new homes, including 1,400 homes within the period 2029-37. This will become a new sustainably planned place with connected, walkable, vibrant, sociable neighbourhoods for the residents of Heathlands, Lenham, Lenham Heath and Charing in which to live and work. There will be new local jobs, community facilities, schools, cafes shops and leisure facilities. To facilitate healthy lifestyles, high quality connected landscapes and green infrastructure will be for exercise, sport, play, walking, cycling, and leisure, sitting alongside facilities for growing food. Pedestrians, cyclists, and public transport will be priorities helping sustainable travel opportunities with convenient and safe linkages within Heathlands, to surrounding communities and to new community facilities. There will be a sensitive transition between the AONB and Heathlands, with a heathland landscape and strong planting in the northern parcels, and landscaped spaces for village greens, parks, commons and naturalistic green spaces throughout. A new Heathlands Rail Station along the Ashford-Maidstone line will be explored to achieve a wider sustainable connected network, providing opportunities for residents and businesses along the A20 corridor. There will be a new District Centre adjacent to a potential new railway station, including a significant knowledge-based employment offer; two new Local Centres, one as part of the early phases of development, and one as part of later phase, each including an element of employment space; and a minimum of 14 hectares of dedicated new employment land.

Infrastructure requirements include the delivery of an improved or new wastewater treatment facility;

The following requirements are identified for transport connections:

- A business case for a new rail station will continue to be explored on the Maidstone- Ashford rail line, with suitable alternative connectivity to the existing station at Lenham if the case is not made;
- Two new access connections on to the A20 will be provided to the north of the development, on routes which cross the Maidstone-Ashford rail line to connect with the southern part of the site.
- A good public transport facility through the site with new bus routes that provide linkages to the potential new station or existing Lenham Station and between the homes, district and local centres, Lenham secondary school, new schools and other local facilities and adjacent local areas;
- A network of pedestrian and cycle paths throughout the site, linking the district centre and local centres to the housing and employment areas, and beyond to the open countryside and to surrounding settlements;
- Potential connection to a new M20 junction as a result of cumulative development between M20 Junctions 8 & 9

The western portion of the site is constrained due to an existing minerals allocation and the existing Lenham Wastewater Treatment facility, and these constraints will be addressed through phasing and masterplanning; with the need for phasing to ensure that the minerals allocation is not compromised.

Lidsing Garden Community

The Lidsing Garden Community proposal provides a large, deliverable development that could come forward from the middle years of the LPR period. The site will operate as an urban extension to the Medway urban area, providing 2000 homes and focusing on improving connectivity in south Medway. The site contains the opportunity for a significant employment offer as part of the development mix, and the council considers that this is appropriate given the strategic access granted to the M2 via Junction 4. Improved connectivity will be in the form of a connection between North Dane Way and a new motorway junction on the M2. Routes across the site will be significantly improved and particularly a new orbital bus route will be a benefit to the wider community. A new Local centre of not less than 1,500m^2 of retail, leisure and services will be created and 14 Ha of new employment space will be created, focused on the improved motorway access. New half-hourly bus services to be provided between the site and Chatham via North Dane Way. Cycling & walking links throughout the site, and strategically north-south along the Capstone Valley and into the wider Medway area will be created.

Lenham

Approximately 145 new dwellings will be delivered on one allocated site (Tanyard Farm), in addition to six allocations in the Lenham Neighbourhood Plan which will deliver around 1,000 new dwellings.

Two pitches are allocated for Gypsy and Traveller accommodation.

Three existing sites are designated as Economic Development Areas in order to safeguard and maintain employment opportunities in the locality.

One new employment site allocation (Ashford Road) will deliver 2,500m^2 employment space.

Key infrastructure requirements for Lenham include improvements to highway and transport infrastructure including junction improvements, a variety of measures to improve sustainable transport infrastructure, and improvements to pedestrian access.

Harrietsham

Approximately 49 new dwellings will be delivered on a site at Mayfield Nursery on Ashford Road, and 100 at Kielen Manor and land south of A20.

Two existing sites are designated as Economic Development Areas in order to maintain employment opportunities in the locality.

Key infrastructure requirements for Harrietsham include improvements to the A20 Ashford Road, improvements to Church Road and the provision of additional pedestrian crossing points.

The Submission Plan contains no policy or text on mineral safeguarding requirements.

Contribution to Cumulative Effects

Proposed housing and economic development in Maidstone and at junction 8 of the M20 and at Heathlands Garden Community and to a lesser extent at Lenham and Harrietsham will provide housing, employment and services to meet the needs of communities, contributing to their wellbeing. It will increase traffic on the A20, M20 and through junction 8 of the M20, potentially in competition with the traffic accessing the minerals site. Policy on managing the transport impacts of development may help to avoid or reduce increased demand for road space. The development of new sites for housing and employment is likely to increase pressures on biodiversity. Greenhouse gas emissions will be increased.

Relevant mineral site: M3.

Lenham Neighbourhood Plan 2017-31, Lenham Parish Council, July 2021

Allocates seven potential development sites to accommodate housing in the Lenham area, to the north east and north west of the Chapel Farm mineral site.

Contribution to Cumulative Effects

Proposed housing development at Lenham will help to address the needs of communities, contributing to their wellbeing. It will increase traffic on the A20, potentially in competition with the traffic accessing the minerals site. The likelihood of impacts is unclear as the locations are currently only proposals.

Relevant mineral site: M3

Adopted Local Plan, Ashford Borough Council, February 2019

A total housing target of 13,118 net additional dwellings applies for the Borough between 2018 and 2030. The majority of new housing development will be at Ashford and its periphery, as the most sustainable location within the Borough based on its range of services and facilities, access to places of employment, access to public transport hubs and the variety of social and community infrastructure available. In addition to existing commitments, new land allocations to deliver 4,872 dwellings are proposed.

Job growth and economic prosperity will be supported in order to enable the achievement of a sustainable economy with the intention to deliver 63 hectares of new employment land and a total of 11,100 jobs in the Borough between 2014-30.

A regenerated Ashford Town Centre will significantly expand its leisure, cultural, educational and residential offer. A new Commercial Office Quarter next to the railway station will be a major economic impetus for the area, helping to substantially increase employment, trigger more spending in the town centre economy, and improve wage rates and skills levels.

The other rural service centres, including Charing, will remain important providers of local shops and services, whilst delivering new development of a scale appropriate to the individual characteristics of the

settlement. Smaller rural settlements will also provide smaller scale new development, to help sustain local communities.

Land at Northdown Service Station in Charing is proposed for residential development for up to 20 dwellings. Development proposals for this site shall provide vehicle access onto the A20 Maidstone Road.

The land south of the Arthur Baker playing fields in Charing is proposed for residential development, up to 35 units. Development proposals for this site shall provide a vehicular, pedestrian and cycle link from the A20 through the site to the adjoining Arthur Baker playing fields and be designed to include a built-up frontage to the A20.

Land adjacent to Poppyfields at Charing is proposed for residential development, up to 180 dwellings. This should be accessed directly from the A20.

Provision of new employment premises, and the redevelopment, enhancement and reconfiguration of existing employment premises will be permitted within or adjoining the built-up confines of Ashford, Tenterden and the rural settlements, provided that any impact upon the local road network can be mitigated. In the rural settlements, it must be demonstrated that the development will not generate a type or amount of traffic that would be inappropriate to the rural road network that serves it.

The Plan notes that the site at Brockman's Lane lies within a Mineral Safeguarding area and requires a mineral assessment to be undertaken to establish whether any prior extraction is required.

Contribution to Cumulative Effects

The provision of housing and employment sites in the Borough will help to meet the needs of communities leading to increased wellbeing. Development of greenfield sites is likely to lead to increased pressure on biodiversity. Proposed housing developments at Charing and to a lesser extent at Hothfield and Tutt Hill are likely to increase demand for road space on the A20, potentially in competition with mineral site traffic. The Plan requires mitigation of impacts on the road network, so effects should be minimised although this is uncertain.

Housing and economic growth in Ashford is likely to increase traffic on the M20. The scale of this will be significantly greater than the impacts from minerals site traffic, which will arise from site M3.

Relevant minerals site: M3

Core Strategy, Tonbridge and Malling Borough Council, September 2007

Provision is made for the development of at least 6,375 dwellings in the period 2006-2021.

Development will be concentrated within the confines of the urban areas of:

- Tonbridge (including Hilden Park);
- The Medway Gap (i.e. the major developed parts of Kings Hill, Leybourne, East Malling, Larkfield, Lunsford Park, Ditton and Aylesford south of the River Medway, Aylesford Forstal, and Snodland);
- The part of the Medway Towns urban area that lies within Tonbridge and Malling Borough (Walderslade).

Development adjoining these urban areas will only be proposed in the LDF, or otherwise permitted, where there is an identified need and there are no suitable sites within the urban areas. Priority will be afforded to the use of previously developed land.

Housing and employment development or redevelopment, conversions and changes of use will be proposed or otherwise permitted within the confines of the following rural settlements which are defined as Rural Service Centres: Borough Green; Hildenborough; East Peckham; West Malling; Hadlow.

Major new housing development will be met at following strategic sites:

- Holborough (with permission) – 938 dwellings to be developed between 2006 and 2016;
- Kings Hill (with permission) –1446 dwellings to be developed between 2006 and 2016;
- Leybourne Grange (with permission) – 723 dwellings to be developed between 2008 to 2016;
- Peters Pit (with permission) - 1000 dwellings to be developed mainly in the post 2011 period.

New employment provision will be met at Kings Hill and on vacant sites within the main employment areas as well as through the intensification or redevelopment of existing employment sites.

Contribution to Cumulative Effects

The proposed housing and employment growth within Tonbridge and Malling will enable the needs of communities for jobs and homes to be met. However, the growth will result in increased greenhouse gas emissions. Development of new sites is likely to lead to increased pressure on biodiversity from habitat loss and disturbance. This is particularly the case with the strategic sites at Holborough, Kings Hill, Leybourne Grange and Peters Pit. Proposed developments in the Medway Gap and at Snodland are likely to increase demand for road space, including on the A20 and M20. This could potentially be in competition for road space with minerals site traffic. Impacts of development on the transport network may be offset to some degree by the requirement for measures to mitigate effects, although the overall balance of effects is not certain.

Relevant site: Hermitage Quarry extension

Core Strategy DPD, Tunbridge Wells Borough Council, June 2010

Policy for development in Royal Tunbridge Wells provides for approximately 4,200 net additional dwellings over the period 2006 to 2026. It encourages a greater proportion of office space (B1) within the town centre, with approximately 23,500m^2 (net) additional comparison retail floorspace to be provided by 2017 in

the town centre. The Core Strategy emphasises the role of the town centre as a focal point for a mix of employment, retail and complementary uses.

Approximately 300 net additional dwellings will be delivered in Southborough. In the order of 500m^2 (net) additional comparison floorspace will be delivered by 2017. Infrastructure improvements to encourage the uptake of sustainable transport modes, such as walking, cycling and use of public transport, will be pursued in order to reduce congestion and improve transport links to Royal Tunbridge Well. Measures to improve air quality within the Air Quality Management Area will be investigated and pursued.

The Core Strategy contains no policy or text on the approach to sites that contain safeguarded mineral resources or minerals or waste facilities.

Contribution to Cumulative Effects

Proposed developments in Royal Tunbridge Wells and Southborough are likely to contribute to increased wellbeing by meeting the needs of communities for homes and jobs. However, they will contribute to increased greenhouse gas emissions and increased demand for space on the road network, potentially including the A21, although this may be offset to some degree by measures to encourage sustainable transport use and air quality improvements.

Relevant mineral sites: M10, M13

Submission Local Plan 2020-2038, Tunbridge Wells Borough Council, October 2021

The broad development strategy for Tunbridge Wells borough over the period 2020-2038 is to ensure that a minimum of 12,204 dwellings and 14 hectares of employment (Use Classes B and E) land are developed, together with supporting infrastructure and services.

The Plan provides for the growth of settlements, having regard to their role and function, constraints and opportunities, together with the development of two strategic sites, namely major, transformational expansion of Paddock Wood (including land at east Capel) following garden settlement principles and providing flood risk solutions and the creation of a new garden settlement: Tudeley Village between Paddock Wood and Tonbridge.

The Plan also provides for a prestigious new business park to the north of North Farm/Kingstanding Way, Royal Tunbridge Wells, well connected to the improved A21.

The majority of housing growth is located as follows:

- Royal Tunbridge Wells: 1416 to 1536 dwellings
- Paddock Wood to the west, north and east of the existing settlement: 3932 to 4032 dwellings
- Tudeley Village: 2100 dwellings

Four employment land allocations are identified, including:

- 13.4 ha in Royal Tunbridge Wells
- 6.6 ha at Paddock Wood
- 4.6 ha at Paddock Wood

There is a package of significant transport measures to support the growth at the Strategic Sites at Paddock Wood (including land at east Capel) and Tudeley Village, including new road junctions/links, bus links and services and active travel provision (including towards Royal Tunbridge Wells and Tonbridge). There is a further package of measures for Royal Tunbridge Wells and Pembury, including improvements to road junctions/links, bus priority measures, and upgraded and new cycle routes and pedestrian links.

The Council will work with Kent County Council and National Highways (formerly Highways England) to deliver strategic and local highway improvements to mitigate and address the impact on the highway network. These measures will be funded by development, although other funding opportunities will be investigated. Mitigation measures include:

- part off-line, part on-line improvements to the A228;
- the provision of a highway link bypassing Five Oak Green;
- measures along the A228/A264, including junction capacity improvements at Woodsgate Corner and a roundabout at the Pembury Road/Halls Hole Road/Blackhurst Lane.

The routes for major and strategic road improvements, including a route for an entirely off-line A228 strategic link (Colts Hill bypass) as part of the wider major roads network (to deliver wider economic benefits and links to north east Kent (and potentially the Lower Thames Crossing), and the dualling of the A21 from Kippings Cross to Lamberhurst will be safeguarded.

The Submission Local Plan notes the need for development proposals to comply with the safeguarding policies in the KMWLP. It notes potential mineral constraints at Paddock Wood, Tudeley Village and Tunbridge Wells Garden Centre.

Contribution to Cumulative Effects

Proposed developments in Royal Tunbridge Wells and Southborough are likely to contribute to increased wellbeing by meeting the needs of communities for homes and jobs. However, they will contribute to increased greenhouse gas emissions and increased demand for space on the road network, although this may be offset to some degree by measures to encourage sustainable transport use and air quality improvements.

Proposed developments at Paddock Wood have the potential to give rise to impacts on the A228 in combination with mineral sites M10 and M13, although planned improvements to the A228 may help to accommodate the increase in traffic using the road such that adverse impacts on the network are avoided.

Site Allocations Local Plan, Tunbridge Wells Borough Council, July 2016

Land at Brook Farm, Capel (adjacent to this borough's boundary with Tonbridge & Malling Borough), as shown on the Villages & Rural Areas (Capel) Proposals Map, is designated as a Key Employment Area.

Contribution to Cumulative Effects

The designated Key Employment Area is likely to increase traffic on the A228, although the site is relatively small and the impacts are likely to be minor.

Relevant minerals site: M10, M13

Dartford Core Strategy, Dartford Borough Council, September 2011

Dartford Town Centre and Northern Gateway are to provide up to 3070 homes and 1500 jobs and up to 24,000m^2 net shopping floorspace. Of this, Northern Gateway will provide up to 2,040 homes, 1200 jobs in B1, B2 and B8 uses and provision of a mix of uses and the creation of a new area of public realm around the Mill Pond. Uses may include local shops and leisure uses, a hotel, community facilities and cafes, pubs and restaurants fronting onto the waterside.

The Core Strategy will create multifunctional greenspace alongside the River Darent and within and across the Northern Gateway site, providing at least 30% open space across the site, with provision for biodiversity and landscape improvements as well as recreational, sporting and amenity areas. Land at Dartford Fresh Marsh, the Mill Pond and the provision of a park on the eastern side will form part of the provision.

The Core Strategy seeks to minimise the amount of traffic generated by the Northern Gateway site, with an emphasis on sustainable forms of travel, with Fastrack provision through the site, direct access to Dartford station and foot and cycle connectivity. Planning applications must be supported by a transport assessment which takes into account all planned development in the town centre as well as the Northern Gateway. In advance of a Community Infrastructure Levy (CIL), a proportionate contribution will be required towards short-term mitigation measures to address any impact of the proposal on Junction 1a of the M25 (A282). A Travel Plan will be required for each application.

New residential communities will be focused on Ebbsfleet Valley and Stone, providing up to 7,850 homes within the Plan period, with further development beyond 2026. The Plan will also provide 9,700 jobs in offices and other B1 uses within the Plan period, with a concentration of these in the Ebbsfleet Valley. A centre of excellence for sport and recreation will be provided at Stone Lodge, expanding on the existing Olympic-level provision on the site. Options for the evolution of Bluewater which provide for a wider range of uses will be explored. At Ebbsfleet Valley, a community of up to 10,000 homes, (up to 5,250 assumed to

be provided in the Plan period) with a business district providing approximately 16,900 jobs, (up to 9,500 assumed to be provided in the Plan period) and leisure and retail uses to support local residents, workers and visitor.

The Kent Thameside Strategy for the waterfront seeks to open up access to the river for existing and future communities and to produce a high quality riverscape. Recent piecemeal development of the Thames Waterfront has not achieved the full potential that co-ordinated development of the riverside could bring. A number of potential sites on the Thames Waterfront present a unique opportunity to create mixed use development, bringing life and activity back to the river. The Council will promote the creation of a vibrant mixed-use riverfront, incorporating sustainable communities, new employment opportunities, leisure use of the river /riverside and use of the river for sustainable transport, by supporting residential development of up to 3,750 homes and provision of up to 456,000m^2 of employment floorspace.

The Core Strategy seeks to protect and enhance Black Duck Marsh and Dartford Marshes as areas of biodiversity value and public recreational areas for quiet enjoyment, to the extent that the ecological protection of the area permits. New development will be expected to include connecting corridors of natural habitat along the river to enhance biodiversity linkages and to protect s41 species and other species of local ecological value.

In order to reduce the need to travel, minimise car use and make the most effective use of the transport network, the Council will:

- Encourage mixed use development and close interrelationship between complementary land uses: homes, jobs, shops and leisure, recreational and community facilities;
- Require major development sites to make provision for Fastrack as part of planning proposals.

In order to enable the transport network to respond to the pressures of new development, the Council will work with its partners to deliver a Strategic Transport Infrastructure Programme to ensure that the transport network operates at acceptable levels and that the transport infrastructure is in place to support new development.

The following infrastructure improvements are identified:

- Provision of Fastrack route through the Northern Gateway site by 2021
- A206/Marsh Street - replacement of roundabout with signal controlled junction by 2021
- Junction 1A improvements by 2021

The Core Strategy requires development of wharves to be subject to a study demonstrating cargo handling at the wharf is not viable. It notes safeguarded wharves at Johnsons Wharf.

However, it contains no policy or text on the approach to sites that contain safeguarded mineral resources or other minerals or waste facilities.

Contribution to Cumulative Effects

Planned housing and employment developments in Dartford will contribute to the wellbeing of communities by providing homes and jobs to meet identified needs. It will also contribute to increased greenhouse gas emissions and increased demands for space on the road network. Transport infrastructure improvements may help to reduce the level of additional demand. The Core Strategy is likely to contribute to biodiversity enhancement and public wellbeing by providing multifunctional greenspace and improved habitat connectivity.

Sites are sufficiently distant from the nominated site and existing allocated sites that cumulative impacts are not likely.

Dartford Local Plan to 2037: Pre-Submission (Publication) Document, Dartford Borough Council, September 2021

The total 15 year housing requirement is for 11,900 homes, or 790 homes per annum. The Plan also seeks approximately an average rate of 22,000m^2 per annum of new commercial, business and services uses, and community and learning uses (including offices, health facilities and schools); and approximately an average rate of 25,000m^2 per annum of new industrial/ distribution premises.

The overriding priority for development in the Borough is at Central Dartford and Ebbsfleet Garden City. These growth locations will be regenerated with the provision of new and improved infrastructure and strategic mixed use development. Development is directed to brownfield land not within the Green Belt and sites with good access by public transport and walking/ cycling to a range of local supporting services/ infrastructure.

Significant jobs, major commercial activity and new employment premises will be prioritised within Central Dartford and Ebbsfleet Garden City. Economic development will occur at locations elsewhere in the urban area where this is consistent with sustainable growth patterns and provides suitable improvement and expansion/ intensification of commercial locations.

The network of retail centres comprises

i) Dartford Town Centre, which will attract a wide range of new businesses;

ii) Bluewater, which will continue its regional economic contribution;

iii) District Centres at Dartford, Ebbsfleet, Swanscombe and Longfield; and

iv) Local Centres in the urban area and at villages.

Community uses, including education, health, sports facilities, cultural services and local shops, will be retained, and new facilities delivered. Development will ensure communities have good quality and sustainable access to the day-to-day facilities they need including local services and jobs.

New development will be located where well-served by public transport, and within easy walking distance of local facilities and jobs (for new homes, or the labour force/ primary catchment as applicable for other developments). All major development will feature significant measures to provide improved safe and secure active travel routes integrated with the surrounding area. Large and trip generating developments should support public transport use and new infrastructure.

In Central Dartford, the Council seeks to secure major transport investment to: mitigate the current adverse impacts of traffic congestion; increase public transport capacity and services, reducing dependency on car travel; and enhance walking and cycling. The Council will seek full integration of rail, bus and Fastrack services, particularly at a new railway station and with new rail services for Dartford.

A 21st century garden city at Ebbsfleet will continue to be created, sensitively integrated into its environment and surroundings, providing high quality new greenspace, infrastructure, homes and business investment and ensuring climate resilience. This will be achieved by the co-ordinated delivery of integrated and accessible sustainable transport, and well-designed and well-served mixed neighbourhoods. These will include workplaces, schools, health facilities and centres which serve and are well linked to neighbouring communities and towns, encourage walking and cycling and are connected by modern public transport systems. It will become an important destination for recreation and leisure uses.

A new urban heart will be created at Ebbsfleet Central around a transport hub focussed on Ebbsfleet International Station, and plans for new neighbourhoods at Alkerden and Ashmere. The neighbourhoods at Ebbsfleet Green, Castle Hill, and north west of Swanscombe will be completed. Further development may come forward at suitable land north of London Road, Swanscombe.

Development in Ebbsfleet Garden City should ensure wherever possible that Swanscombe benefits from:

a) access to better facilities and public transport, including upgrades to the accessibility of, and services from, Swanscombe railway station (or a new station); and

b) improvements to existing connections and the delivery of new green walking and cycling connections, in particular linking in to improvements towards the River Thames and Ebbsfleet International Station.

At Swanscombe, environmental and infrastructure enhancements, including to upgrade public transport and walking/ cycling connections, will be sought.

Supporting text notes that some parts of the Borough are in Mineral Safeguarding Areas under the KMWLP and indicates that development in MSAs should be avoided where possible or otherwise will be considered in accordance with policy DM 7 of the KMWLP.

Contribution to Cumulative Effects

Proposed developments within Dartford Borough are likely to contribute to increased wellbeing by meeting the needs of communities for homes and jobs. However, they will contribute to increased greenhouse gas emissions and increased demand for space on the road network, although this may be offset to some degree by measures to encourage sustainable transport use and air quality improvements.

Sites are sufficiently distant from the nominated site and existing allocated sites such that cumulative impacts are not likely.

Canterbury District Local Plan, Canterbury City Council, July 2017

The Local Plan identifies that between 2011 and 2031, the following will be required:

- 16,000 housing units
- 96,775m^2 of employment land
- 33,800m^2 of comparison retail
- 2608m^2 of convenience retail

Strategic sites are allocated in Canterbury, Sturry/Broad Oak, Herne Bay, Whitstable, Hersden and Thanington.

The urban areas of Canterbury, Herne Bay and Whitstable will continue to be the principal focus for development, with a particular focus at Canterbury, together with development at the rural service centres and local centres.

The Council has developed an Infrastructure Delivery Plan, seeking to identify the key elements of infrastructure that would be required to support the level and distribution of development being proposed in this Plan. Key elements of infrastructure include:

- Provision of fast bus links into Canterbury
- Road improvements at Sturry and Herne
- Additional Park & Ride provision to serve Canterbury
- Provision of new cycle paths/footpaths
- Completion of bus lanes in key areas
- New/improved A2 junction at Bridge
- New eastbound off slip road and extended westbound slip road off the A2 at Wincheap, Canterbury

In considering the location of new development, or the relocation of existing activities, the Council will always take account of the following principles of the Transport Strategy:

- Controlling the level and environmental impact of vehicular traffic including air quality;
- Providing alternative modes of transport to the car by extending provision for pedestrians, cyclists and the use of public transport;

- Reducing cross-town traffic movements in the historic centre of Canterbury;
- Providing public car parking and controlling parking having regard to the Parking Strategy;
- Assessing development proposals in the light of transport demands and the scope for choice between transport modes; and
- Seeking the construction of new roads and/or junction improvements which will improve environmental conditions and/or contribute towards the economic well-being of the District.

Contribution to Cumulative Effects

Development on sites that contain safeguarded mineral resources or safeguarded minerals or waste facilities will be required to demonstrate that the mineral will not be needlessly sterilised or the facilities have been fully considered and it is concluded that development would be acceptable. This will have an economic cost for the proposed development of the site which may affect the viability of development and delay its implementation. It may also delay community benefits associated with house construction or economic benefits associated with employment provision.

Draft Canterbury District Local Plan, Canterbury City Council, October 2022

The draft Local Plan makes provision between 2011 and 2031 for:

- An average of 1252 new dwellings per year
- 38,480m^2 of office space
- 52,030m^2 floorspace for light industrial use;
- 15,270m^2 floorspace for general industrial use; 66,440 sqm floorspace for warehousing use;
- 414m^2 floorspace for convenience retail use; and
- 5,290m^2 floorspace for comparison retail use.

Strategic sites are allocated in Canterbury, Sturry/Broad Oak, Herne Bay, Whitstable, Hersden and Thanington.

The urban areas of Canterbury, Herne Bay and Whitstable will continue to be the principal focus for development, with a particular focus at Canterbury, together with development at the rural service centres and local centres.

The Council has developed the Canterbury Circulation Plan, which aims to unlock growth in the district while facilitating the delivery of enhanced sustainable transport infrastructure to enable this significant shift in travel modes. Outside of the city, the Local Plan identifies a series of improvements to highways and sustainable transport infrastructure needed to support growth, including the provision of new A299 junctions and a park and bus facility at Whitstable.

Proposals for new development should align with the council's Movement Hierarchy which seeks to prioritise active and sustainable travel options in all new developments, to minimise additional trips made by private vehicle, contribute to improvements in air quality and carbon emissions and support active and healthy

lifestyles. Proposals for development must demonstrate how they will maximise high quality walking and cycling connectivity both within the site and to local facilities, open spaces and public transport networks including bus and rail.

Development at a number of the allocated sites in the Plan (C6, C8, C12, C13, C14, C15, C20, C21, C22, W5, HB4, HB6, R12, R15, R16, R26, are required to provide a minerals assessment in accordance with the Kent Minerals and Waste Local Plan and other material considerations. Site C22 is required to provide approximately 8,000sqm of employment floorspace associated, or compatible, with the waste transfer station, landfill or vehicle depot (such as B8 or sui generis). At site C23, non-residential development should consider the suitability of re-providing other existing appropriate uses (such as the waste depot).

Contribution to Cumulative Effects

Proposed developments in Canterbury, Herne Bay and Whitstable are likely to contribute to increased wellbeing by meeting the needs of communities for homes and jobs. However, they will contribute to increased greenhouse gas emissions and increased demand for space on the road network, although this may be offset to some degree by measures to encourage sustainable transport use and air quality improvements.

Sites are sufficiently distant from the nominated site and the existing allocated sites such that cumulative impacts are not likely.

Core Strategy, Dover District Council, February 2010

The Strategy will focus on Dover town where there is most need for action but also where there is most potential. At Deal, Sandwich and the large rural area the Strategy will be selective responding to more localised needs although some of these, especially at Deal and Aylesham are more significant.

The Strategy's Key Features are, between 2006 and 2026, to:

- Realise forecast growth in the local economy including up to 6,500 more jobs and 347,500 m^2 of employment space
- Support a forecast population increase of around 15,500 which will increase the potential workforce by some 4,300 people. Combined with other measures to increase the proportion of people in work, this would provide a workforce to support the forecast jobs growth of around 6,500 without the likelihood of a significant increase in in-commuting
- Reduce the ageing trend of the population structure (child age group to reduce by only around 1,200) while planning to meet the needs of older people (over 65s likely to increase by around 12,500)
- Allocate land for around 14,000 new homes with the aim of providing at least 10,100 by 2026
- Provide homes that meet the changing needs of the home population but that also attract working age people and families to the District

- To realise around 54,000m^2 gross of additional shopping floorspace and reduce the need for residents to make shopping trips outside the District
- Concentrate these actions at Dover to enable its transformation
- Support these actions with the necessary range of infrastructure, including green infrastructure

The following transport infrastructure needs are identified, all of which were expected to be delivered by 2021:

- High Speed 1 train service from Dover to London via Ebbsfleet and Stratford
- Terminal 2 - Dover Western Docks Ferry Terminal (Port of Dover Masterplan)
- Package of sustainable transport measures for Dover (identified in Dover Transport Strategy)
- Dover town centre to Whitfield express bus link (Dover Transport Strategy)
- Identification of access arrangements into Whitfield from A2 and A256
- A2 Lydden to Dover dualling
- Dover Park and Ride system

The District Council supports the development of a new freight and passenger ferry terminal at Dover Western Docks provided it safeguards the aggregates wharf facility identified in the Kent Minerals Local Plan

However, the Core Strategy contains no policy or text on the approach to sites that contain safeguarded mineral resources or other minerals or waste facilities.

Contribution to Cumulative Effects

Proposed developments in Dover, Deal and Sandwich are likely to contribute to increased wellbeing by meeting the needs of communities for homes and jobs. However, they will contribute to increased greenhouse gas emissions and increased demand for space on the road network, although this may be offset to some degree by measures to encourage sustainable transport use and infrastructure improvements.

Sites are sufficiently distant from the nominated site and existing allocated sites such that cumulative impacts are not likely.

Dover District Local Plan to 2040: Regulation 19 Submission, Dover District Council, October 2022

The Strategy will focus on Dover town where there is most need for action but also where there is most potential. At Deal, Sandwich and the large rural area the Strategy will be selective responding to more localised needs although some of these, especially at Deal and Aylesham are more significant.

Provision is made for at least 10,998 net additional homes, in the District over the Plan period. The housing target will be met through a combination of committed schemes, site allocations and suitable windfall proposals.

The majority of new housing development will be in Dover Town and at Whitfield. Land is therefore identified to deliver a minimum of 3,381 homes in addition to existing commitments. Strategic allocations are at

Development will then be focused in the District Centre of Deal, and the Rural Service Centres of Sandwich and Aylesham. Development in Deal, Sandwich and Aylesham will be at a more limited scale than Dover Town, compatible with the more limited range of job opportunities, shops, services and other facilities available in these locations. Land is therefore allocated to deliver in the region of 1,099 homes, in addition to existing commitments.

Development in the rural areas will be of a scale that is consistent with the relevant settlement's accessibility, infrastructure provision, level of services available, suitability of sites and environmental sensitivity. Land is therefore allocated to deliver in the region of 1,112 homes, in addition to existing commitments.

Three housing site allocations (Whitfield Urban Extension, Land to the South of Aylesham and Land Between Elvington and Eythorne) are considered to strategic when considered in the context of the Plan's overall strategy, in addition to the combined delivery of multiple sites in the District and Rural Service Centre settlements of Dover, Deal and Sandwich, which when taken together are essential to meet the housing requirements.

Economic growth will be supported in the District to deliver a minimum of 117,290m2 of new employment floorspace (31.1ha in land terms) over the Plan period. This will be achieved through the following strategy:

1. The allocation of the following sites for business and employment purposes:
    - White Cliffs Business Park, Whitfield;
    - Discovery Park, Sandwich;
    - Aylesham Development Area, Aylesham;
    - Statenborough Farm, Eastry (Policy SAP31).
2. Supporting the regeneration of the following sites, for a mix of uses, to secure their future:
    - The former Snowdown Colliery, Aylesham;
    - The Citadel, Western Heights, Dover;
    - Fort Burgoyne, Dover;
    - Dover Waterfront, Dover.
3. The retention of existing industrial/ commercial/ business land, premises and estates.
4. The maximisation of town centre employment opportunities.

5. Supporting the expansion of port facilities at Dover's Western Docks through the Harbour Revision Order.

6. Promoting rural employment opportunities.

7. Supporting tourism development that would extend or upgrade the range of tourist facilities particularly those that attract the staying visitor, increase the attraction of tourists to the area and extend the season.

The Council will work with Kent County Council, National Highways and other transport providers to deliver strategic transport improvements to mitigate and address the impact of development or remove impediment to future growth. Key strategic transport schemes are:

a A2 Dover Access

The Council is committed to working with National Highways to facilitate major, long-term improvements to the A2 from Lydden Hill to the Port of Dover. As such, promoters of sites impacted by improvements related to the A2 will need to take account of any emerging proposals by National Highways or any other licensed strategic highway authority appointed by the Secretary of State under the Infrastructure Act 2015.

b Strategic Highway Improvements / Mitigation at A2 junctions:

i Whitfield Roundabout

ii Duke of York Roundabout

iii A257/A256 Junction

iv A258/A256 Junction

The Council, in partnership with Network Rail, will support proposals for a rail journey time of less than 1 hour between Dover and St Pancras, along with additional capacity on the High Speed route and associated station improvements, including additional car parking at Dover Priory.

The Council will work with Kent County Council, National Highways and developers to ensure delivery of the Dover Fastrack Bus Service. It will support proposals for the rural demand-responsive bus service and other improvements to local bus service provision.

A Transport Assessment or Statement is required for most new development, to identify off-site highway improvements and sustainable transport measures that are necessary to serve the development.

Supporting text in the draft Plan states that for sites identified as being in a KCC Minerals area, a Minerals Assessment will be required in accordance with Policy DM7 of the adopted Kent Waste and Mineral Local Plan, although this is not stated in plan policy, nor are the sites identified.

Contribution to Cumulative Effects

Proposed developments in Dover, Whitfield, Deal, Sandwich and Aylesham are likely to contribute to increased wellbeing by meeting the needs of communities for homes and jobs. However, they will contribute to increased greenhouse gas emissions and increased demand for space on the road network, although this may be offset to some degree by measures to encourage sustainable transport use and air quality improvements.

Sites are sufficiently distant from the nominated site and existing allocated sites such that cumulative impacts are not likely.

Gravesham Local Plan Core Strategy, Gravesham Borough Council, September 2014

The Strategy seeks to make the most efficient use of land by concentrating development on underused, derelict and previously developed land in the urban area of Gravesend and Northfleet, in particular former industrial sites along the Thames Riverside and in Gravesend town centre, and at Ebbsfleet. It makes provision for at least 6,170 new dwellings during the plan period 2011 – 2028 as follows:

- Gravesend: 1670
- Northfleet: 1030
- Ebbsfleet: 690
- Rest of borough: 1550
- Unidentified sites: 1240.

It is planned to provide employment floorspace which should enable the delivery of at least 4,600 new B class jobs over the plan period, as follows:

- Gravesend: 27,900
- Northfleet: 133,550
- Ebbsfleet: 20,000
- Rest of urban area: 5,050

It also seeks to provide net retail floorspace of 18,280m^2.

Within the Northfleet opportunity area is Northfleet Cement Works Regeneration Area (sub-area 1.5), which consists of the remainder of the former Lafarge cement works site and lies at a lower level than the adjoining residential community on the banks of the River Thames. Access to the site is primarily via a road tunnel from the A226 Thames Way that passes through Vineyard Pit. A rail connection to the North Kent line has also been reinstated via Church Path Pit, a connected site to the south, which has the potential to be extended to sub-areas 1.7 (Kimberly Clark) and 1.8 (Northfleet Embankment East) in due course. There is also good deep water access via the existing Wharf.

This area is identified as a Key Site. There is a resolution to grant planning permission for around 46,000m^2

gross employment floorspace for business, industrial and storage and distribution uses under use classes B1, B2 and B8. In conjunction with this, listed building consent has also been given for the dismantling, relocation and reassembly of the Grade II listed Bevan's War Memorial. The other Grade II listed building in the vicinity of the site is the Northfleet Lower Lighthouse located at the eastern end of Wharf 42. The lighthouse is expected to remain in its present position and retain its industrial setting. The Port of London Authority also has an important navigational installation on-site, on the former cement works office block.

A planning permission also exists for the use of part of the site as a Bulk Aggregates Import Terminal, whilst a major cement importing facility has been created through the conversion of the former cement works coal store. In the short term, much of the site will be used for the importation and onward transhipment of Crossrail spoil. In the longer term, it is anticipated that the employment development will come forward.

Most of this Opportunity Area (with the exception of sub-areas 1.6 and 1.9) is within the Northfleet Industrial Air Quality Management Area which was declared because of high levels of particulate matter, i.e. dust, arising from uncontrolled emissions from industrial processes. The closure of the Northfleet Cement works has removed a major source of dust, but current activities and the open nature of some of the area mean that it remains a potential issue. It will be important to take account of air quality in bringing forward any development of the area and a key objective will be to secure continued improvements to air quality through the redevelopment and environmental improvement of sites.

Policy identifies the Northfleet Cement Works Regeneration Area Key Site, which will provide an employment development of around 46,000m^2 gross new employment floorspace comprising business, industrial, and storage and distribution facilities (use classes B1, B2 and B8) and a Bulk Aggregates Import Terminal. Such development will be required to satisfactorily relocate Bevan's War Memorial.

Adjacent to the cement works is Old Northfleet Residential Extension Key Site (sub-area 1.4), which is allocated to provide a residential development of around 530 dwellings, open space, an extension and improvements to the Hive local centre and provision of community facilities.

The Ebbsfleet (Gravesham) Opportunity Area is a substantial opportunity for a high quality, sustainable, mixed use development in line with the long-standing strategy to create a major business district at Ebbsfleet within Dartford as well as Gravesham. Development of the Key Sites will lead to the provision of around 690 new dwellings and around 20,000m^2 gross business employment floorspace (use classes B1a, B1b and B1c), together with supporting retail (use class A1) and other facilities, leisure/entertainment floorspace (use class D2), hotels and restaurants. There is potential for the provision of additional dwellings and business floorspace in the longer term. Facilities will be provided to support development of the Springhead Quarter and Northfleet Rise Quarter Key Sites and will be accessible to both existing and future communities. These will include the provision of recycling and waste transfer facilities.

The Core Strategy seeks to:

- locate new mixed use development in areas with best access to services and facilities which minimise the need to travel, particularly by car;
- improve the local economy to reduce the need for out-commuting. This can also have an impact on air quality;
- support and where possible provide alternatives to help support a modal shift away from car based transport, e.g. improve public transport including bus, train, cycling and walking provision, and increase the use of water based transport; and
- ameliorate the implications of additional traffic for air quality.

The Core Strategy contains a strategic objective to, as a minimum, safeguard the capacity of commercial wharves and other sites needed to support the River Thames as a working waterway.

Any future proposals for the Swanscombe Peninsula East Undeveloped Area will be subject to a comprehensive masterplan approach which deals with the issues of flood risk, transport and access, ground conditions, proximity to existing industrial uses, air quality, biodiversity, utilities, navigation and the presence of the HS1 railway line.

The Core Strategy notes aggregates operations at Northfleet Embankment East Regeneration Area. The Council will seek to ensure, as a minimum, that sufficient minerals capacity is maintained through appropriate alternative provision, so that wider regeneration initiatives do not prejudice the parallel requirements of the Kent Minerals and Waste Local Plan. Proposals for the Key Site will be required to retain Red Lion Wharf for commercial river based use that is appropriate to context, subject to capacity for the transhipment of minerals being maintained through appropriate alternative provision off-site.

The Highways Agency has concerns about the impact of development in the Borough and Dartford on the strategic road network and how any impacts will be mitigated. The Council will work jointly with the Highways Agency, Kent County Council, Dartford Borough Council and all other relevant parties to ensure that the transport needs arising from new development in the Borough are met and that the most efficient use is made of the existing highway network, e.g. through management measures and the introduction of information systems.

The Dartford Crossing is one of the UK's most important strategic connections but its capacity is considerably overloaded for large periods for the day. The Department for Transport consulted in July 2013 on three alternative options to address capacity issues in the future: enhancement of the existing crossing at Dartford; a new crossing at Swanscombe Peninsula; and a new crossing East of Gravesend. The Swanscombe Peninsula option has since been ruled out by the Secretary of State. Gravesham Borough Council objects to the East of Gravesend Option. Until such time as there is a safeguarded route, it has not been possible for the Core Strategy to take any account of the implications of additional capacity.

The Core Strategy notes that there are a number of commercial wharves on the riverside at Gravesend and

Northfleet, and that the KMWLP proposes that a number of these are safeguarded, protecting them from development which could prejudice their future use for minerals importation. Subject to planning controls being applicable, the safeguarding of wharves is supported by the Council in general terms to enable river freight handling to reduce dependence on road freight transport. However, the Council considers that a more flexible approach is appropriate where wider regeneration initiatives are being sought and it is possible to rationalise assets in ways that, as a minimum, maintain necessary capacity for freight handling and provide equivalent or better facilities. This is the approach followed in Policy CS11 (Transport).

The loss of existing commercial wharves shown on the Policies Map and other land-side supporting infrastructure will not be supported unless a study and supporting evidence shows that they are no longer viable for marine related employment purposes or are incapable of being made so at reasonable cost, and it has been shown that there is no demand for them through an appropriate marketing exercise carried out in accordance with Council guidance, or appropriate alternative provision is available or will be provided as part of the rationalisation of facilities that, as a minimum, maintains capacity and provides equivalent or better facilities.

The Core Strategy contains no policy or text on the approach to sites that contain safeguarded mineral resources or other minerals or waste facilities.

Contribution to Cumulative Effects

Development in Gravesham, Northfleet and Ebbsfleet are likely to contribute to increased wellbeing by meeting the needs of communities for homes and jobs. However, they will contribute to increased greenhouse gas emissions and increased demand for space on the road network, although this may be offset to some degree by measures to encourage sustainable transport use and air quality improvements.

Sites are sufficiently distant from the nominated and existing allocated sites such that cumulative impacts are not likely.

Core Strategy, Sevenoaks District Council, February 2011

The Core Strategy will deliver an annual average of 165 dwellings (net addition), equivalent to 3,300 additional dwellings over the period 2006 to 2026 The majority of new housing development will be focused in the urban areas of Sevenoaks (1331 units) and Swanley (660 units). Edenbridge (411 units) will retain its role as a rural service centre serving the surrounding villages with a range of shops, services and employment.

The Transport Strategy identifies four priority objectives, which are Improving accessibility, tackling congestion, providing safer roads and Improving air quality. These have been used to identify priorities in different parts of the District.

Priorities for Sevenoaks Urban Area:

- Improve public transport interchange facilities, in particular at the main bus and train stations in Sevenoaks District.
- Maintain and improve capacity on peak train services.
- Manage parking issues in the town centre and around train stations.
- Bring forward measures to alleviate congestion and tackle air quality issues at Riverhead, Bat and Ball and Sevenoaks Town Centre.
- Improve facilities for walking and cycling.

Priorities for Swanley:

- Improve accessibility to Swanley Station by walking and cycling.
- Ensure that development in Swanley does not have a significant negative impact on traffic on the Strategic Road Network.
- Improve bus interchange facilities in Swanley.
- Improve facilities for walking and cycling.
- Bring forward measures to alleviate congestion and tackle air quality issues near Swanley town centre.

Priorities for Edenbridge:

- Maintain and improve capacity on peak train services.
- Increasing the number of destinations that can be accessed via train services from Edenbridge, including services to Gatwick Airport / improved services to Redhill.
- Improve facilities for walking and cycling.
- Maintain and, where necessary, improve safety on main access roads to Edenbridge.

Priorities for villages and rural areas:

- Maintain and improve accessibility to jobs, shops and services by non-car means, including walking, cycling, public transport and community transport.
- Bring forward measures to alleviate congestion and tackle air quality issues, including those along the A25 corridor, at Seal and Westerham, and on the Strategic Network

The Employment Land Review shows that future employment land needs can be met largely within existing employment sites provided the great majority of these sites are retained in employment use. The distribution of employment land is based on existing development and is therefore principally at Sevenoaks (27.2 ha), Swanley (30.8 ha) and Edenbridge (22.1 ha), including a previously undeveloped site at Swanley. Other significant contributions come from the Major Developed Sites in the Green Belt (at Kemsing, Leigh, Dunton Green and Halstead).

The Council will support and promote measures to reduce reliance on travel by car both in providing for new development and in supporting measures promoted through the Transport Strategy. Specifically it will:

1. Support improvements to enhance the safety and convenience of public and community transport.

2. Seek improved facilities for cyclists and pedestrians

3. Require the inclusion of Travel Plans and other appropriate measures in new developments that generate significant traffic volumes

The design and location of new development will take account of the need to improve air quality in accordance with the District's Air Quality Action Plan. Development in areas of poor air quality or development that may have an adverse impact on air quality will be required to incorporate mitigation measures to reduce impact to an acceptable level. New development in areas of poor air quality will be required to incorporate measures in the design and orientation that demonstrate an acceptable environment will be created for future occupiers. Permission will be refused where unacceptable impacts cannot be overcome by mitigation.

Contribution to Cumulative Effects

Development in Seveonaks, Swanley and Edenbridge are likely to contribute to increased wellbeing by meeting the needs of communities for homes and jobs. However, they will contribute to increased greenhouse gas emissions and increased demand for space on the road network, although this may be offset to some degree by measures to encourage sustainable transport use and air quality improvements.

Sites are sufficiently distant from the nominated site and existing allocated sites such that cumulative impacts are not likely.

The Swale Borough Local Plan, Swale Borough Council, July 2017

Land is identified by the Local Plan to meet the following development targets for the plan period 2013/14-2031:

- employment land B class: 130,000m^2
- housing 13,192 dwellings (776 per annum)

The main Borough urban centre of Sittingbourne will provide the primary urban focus for growth, where development will support town centre regeneration and underpin the town's role as the principal centre.

The other Borough urban centres of Faversham and Sheerness will provide the secondary urban focus for growth at a scale and form compatible to their historic and natural assets and where it can support their roles as local centres serving their hinterland. Additionally at Sheerness its role and functioning will be supported by the other urban local centres within the West Sheppey Triangle to meet the Island's development needs on previously developed sites or at existing committed locations and allocations well related to the urban framework and strategic transport network.

The Rural Local Service Centres will provide the tertiary focus for growth in the Borough and the primary focus for the rural area. At allocated sites relating well to the existing settlement pattern and the character of the surrounding countryside, development will provide for the local housing or employment needs for their home and surrounding communities, whilst supporting existing and new services.

Other villages with built-up area boundaries will provide development on minor infill and redevelopment sites within the built up area boundaries where compatible with the settlement's character, amenity, landscape setting, heritage or biodiversity value.

At locations in the open countryside outside the built-up area boundaries development will not be permitted, unless supported by national planning policy and able to demonstrate that it would contribute to protecting and, where appropriate, enhancing the intrinsic value, landscape setting, tranquillity and beauty of the countryside, its buildings and the vitality of rural communities.

Sittingbourne will provide 43.5% of the borough's housing need, while the other urban areas of Faversham, Sheerness, Queensborough/Rushenden and Minster/Halfway will provide 44.1%.

Totals:

- Sittingbourne: 4417 dwellings, 153,985m^2 industrial/office floorspace
- Sheerness: 0 dwellings, 7500m^2 industrial/office floorspace
- Faversham: 1739 dwellings, 53,325m^2 industrial/office floorspace
- Minster and Halfway: 1494 dwellings, 0m^2 industrial/office floorspace
- Queenborough and Rushenden: 1245 dwellings, 142,611m^2 industrial/office floorspace

To promote sustainable transport in Sittingbourne, the council is focusing on improving the quality of bus journeys, in particular the accessibility and facilities for passengers in central Sittingbourne. Within the town centre, major proposals will provide a central focus for bus and rail services in the vicinity of the station, which has been boosted by the award of £2.5m from the South East Local Economic Partnership local growth fund. Central Sittingbourne regeneration will also contribute to improvements to the highway network and traffic management within the town centre. A bus quality partnership will aim to improve public transport conditions and services at the town and in its centre, alongside additional routes to new developments and better walking and cycling routes.

On the Isle of Sheppey, settlements within the West Sheppey Triangle are the focus of development and long-term change. Development proposals will, as appropriate, bring forward economic development on allocated sites and, as available, at the 'Existing Strategic Employment Sites', including, at the Port of Sheerness, supporting diversification of its activities.

The Isle of Sheppey area strategy requires that, where appropriate, larger scale development proposals bring forward improvements to the A2500 Lower Road.

Completed transport schemes have highlighted a remaining local pinch point at the junction of Barton Hill Drive/Lower Road, Minster, where replacement of the existing traffic signals with a roundabout would relieve local congestion and facilitate better access to the eastern side of Sheppey. Key schemes identified to address the accessibility, connectivity and capacity issues in Swale include provision of a roundabout at Lower Road/ Barton Hill Drive A2500 to facilitate better access to eastern Sheppey.

Land west of Barton Hill Drive, Minster is allocated for some 620 dwellings, together with open space, landscaping and transport improvements.

The Local Plan identifies mineral safeguarding areas on the proposals map. It states that the Council will work with Kent County Council to identify and safeguard mineral reserves and the rail heads and wharves necessary to ensure the transport, import and export of minerals.

In the event that reserves are identified on sites allocated for development by this Local Plan, the Council will ensure that the developer works with the Minerals Planning Authority to ensure the timely working of the site, provided that there is a sustainable and viable outlet for the resource which allows extraction without an unreasonable impact on development coming forward in line with the safeguarding minerals and prior extraction policies contained in the Kent Minerals and Waste Local Plan.

The Local Plan identifies where safeguarded minerals are present on allocated sites and requires investigation of prior extraction.

Contribution to Cumulative Effects

Development in Sittingbourne, Faversham and Sheerness are likely to contribute to increased wellbeing by meeting the needs of communities for homes and jobs. However, they will contribute to increased greenhouse gas emissions and increased demand for space on the road network, although this may be offset to some degree by measures to encourage sustainable transport use and air quality improvements.

Sites are sufficiently distant from the nominated site and existing allocated sites such that cumulative impacts are not likely.

Local Plan, Thanet District Council, July 2020

The primary focus for new housing development in Thanet is the urban area. Within the Thanet villages, housing development is allocated primarily in Minster, with limited development at Cliffsend, Monkton and St Nicholas. No housing development is specifically allocated in Sarre, Acol or Manston, but housing development of a size and scale commensurate with the size of the relevant settlement will be permitted within village confines. All new development will be expected to fully meet its infrastructure requirements, whether directly on site and/or by way of a contribution to necessary off-site infrastructure.

A minimum of 5,000 additional jobs are planned for in Thanet to 2031. Sufficient sites and premises suited to the needs of business are identified and safeguarded for such uses. Manston Business Park is the key location for advanced manufacturing and large scale job creating development.

Land is identified and allocated to accommodate up to 53.5ha of employment space over the period to 2031.

Thanet's town centres are priority areas for regeneration and employment generating development, including tourism and the cultural and creative industries which will be supported (Manston, Ramsgate, Broadstairs, St Nicholas)

The growth of the Port of Ramsgate is supported as a source of employment and as an attractor of inward investment. The Local Plan notes that Kent Minerals and Waste Local Plan 2013-2030 proposes to safeguard the port for the importation of minerals into Kent.

Policy on development at Ramsgate Port states that this is supported where it would facilitate its improvement as a port for shipping, increase traffic through the port, and introduce new routes and complementary land based facilities including marine engineering, subject to:

- a demonstrable port-related need for any proposed land based facilities to be located in the area of the port, and a demonstrable lack of suitable alternative inland locations; and
- compatibility with the character and function of Ramsgate waterfront and the Royal Harbour as a commercial leisure facility; and
- an acceptable environmental assessment of the impact of the proposed development upon the harbour, its setting and surrounding property, and
- the impact of any proposed land reclamation upon nature conservation, conservation of the built environment, the coast and archaeological heritage, together with any proposals to mitigate the impact.

The Local Plan requires masterplanning for development of the site at Shottendane Road to undertake an assessment of the potential impact on minerals management, transportation and production and waste management facilities and to mitigate any potential impacts on waste management capacity.

The Local Plan contains no policy or text on the approach to sites that contain safeguarded mineral resources or waste or minerals facilities.

Contribution to Cumulative Effects

Developments in Thanet are likely to contribute to increased wellbeing by meeting the needs of communities for homes and jobs. However, they will contribute to increased greenhouse gas emissions and increased demand for space on the road network, although this may be offset to some degree by measures to encourage sustainable transport use and air quality improvements.

Sites are sufficiently distant from the nominated site and existing allocated sites that cumulative impacts are not likely.

The London Plan 2021, London Assembly, March 2021

In order to manage London's waste sustainably:

1) the equivalent of 100 per cent of London's waste should be managed within London (i.e. net self-sufficiency) by 2026

2) existing waste management sites should be safeguarded (see Policy SI 9 Safeguarded waste sites)

3) the waste management capacity of existing sites should be optimised

4) new waste management sites should be provided where required

5) environmental, social and economic benefits from waste and secondary materials management should be created.

Development Plans should:

1) plan for identified waste needs

2) identify how waste will be reduced, in line with the principles of the Circular Economy and how the remaining quantum of waste will be managed

3) allocate sufficient sites, identify suitable areas, and identify waste management facilities to provide the capacity to manage the apportioned tonnages of waste.

An adequate supply of aggregates to support construction in London will be achieved by:

1) encouraging re-use and recycling of construction, demolition and excavation waste within London, including on-site

2) extracting land-won aggregates within London

3) importing aggregates to London by sustainable transport modes.

Most aggregates used in the capital come from outside London, including marine sand and gravel and land-won aggregates, principally crushed rock from other regions.

Contribution to Cumulative Effects

The London Plan identifies that most aggregates used in the capital come from outside London, including marine sand and gravel which may come through wharves in Kent. The London Plan requires Boroughs to safeguard existing and future wharf capacity and railheads within London, which will help to reduce the potential for additional pressure on Kent's wharves and road network.

Cumulative impacts in combination with the nominated site and existing sites allocated in the MSP are not likely.