

**Sustainability Appraisal
Report – Non-Technical
Summary**

Updates to the Kent
Minerals Sites Plan







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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 Plan¹ to maintain a 10 year landbank² 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')?

¹ Mineral Sites Plan, Kent County Council, September 2020

² 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 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	<p>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</p> <ul style="list-style-type: none"> – 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	<p>Address the causes of climate change through reducing emissions of greenhouse gases through energy efficiency and energy generated from renewable sources</p> <ul style="list-style-type: none"> – Promote sustainable design and construction of facilities and support wider efforts to reduce the carbon footprint of minerals and waste operations. <p>Promote climate change adaptation</p>

3	Community and well-being	<p>Support efforts to create and sustain sustainable communities, particularly the improvement of health and well-being; and support the delivery of housing targets</p> <ul style="list-style-type: none"> – 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	<p>Support economic growth and diversification</p> <ul style="list-style-type: none"> – 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	<p>Reduce the risk of flooding and the resulting detriment to public wellbeing, the economy and the environment</p> <ul style="list-style-type: none"> – 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	<p>Make efficient use of land and avoid sensitive locations</p> <ul style="list-style-type: none"> – 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	<p>Protect and enhance Kent's countryside and historic environment</p> <ul style="list-style-type: none"> – 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	<p>Reduce and minimise unsustainable transport patterns and facilitate the transport of minerals and waste by the most sustainable modes possible</p> <ul style="list-style-type: none"> – Minimise minerals and waste transport movements and journey lengths; and encourage transport by rail and water.

		<ul style="list-style-type: none"> – 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	<p>Maintain and improve the water quality of the Kent's rivers, ground waters and coasts, and achieve sustainable water resources management</p> <ul style="list-style-type: none"> – 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	<p>Ensure the sustainable management of waste</p> <ul style="list-style-type: none"> – 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 Assessment³ 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.

³ 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.

