Kent Minerals and Waste Development Framework

Planning for the future of minerals and waste in Kent






Minerals and Waste Core Strategy

Strategy and Policy Directions Consultation

May 2011

Kent County Council

Contents

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Abbreviations

AD	Anaerobic Digestion
AONB	Area of Outstanding Natural Beauty
AMR	Annual Monitoring Report
CHP	Combine Heat and Power.
CDE	Construction, Demolition and Excavation Waste
C&I	Commercial and Industrial Waste
DPD	Development Plan Document.
EfW	Energy from Waste.
EIA	Environmental Impact Assessment.
EiP	Examination in Public.
KCC	Kent County Council.
LDF	Local Development Framework
LDS	Local Development Scheme
MCA	Mineral Consultation Area
MSA	Mineral Safeguarding Area
mtpa	Million tonnes per annum
MRF	Materials Recovery Facility
MSW	Municipal Solid Waste
MWDF	Minerals and Waste Development Framework
LDF	Local Development Framework
LLW	Low Level Waste
LNR	Local Nature Reserve
RIGs	Regionally Important Geological Site
SAC	Special Area of Conservation
SAM	Scheduled Ancient Monument
SNCI	Site of Nature Conservation Interest

Abbreviations

SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
tpa	Tonnes per annum
VLLW	Very Low Level Waste
WEEE	Waste Electrical and Electronic Equipment
WMU	Waste Management Unit

1 Introduction

1.0.1 Kent's new Minerals and Waste Development Framework (M&WDF) will set out the Council's strategy and planning policies for mineral extraction, importation and recycling as well as waste management of all of the waste streams that are generated or managed in Kent. It will only cover the county of Kent. Medway Council are addressing minerals and waste matters themselves in their own Local Development Framework (LDF). However Kent and Medway Councils have worked together in the preparation of part of the evidence base required for their Development Plan Documents (DPDs).

1.0.2 We realise that this is a technical subject and our reports use a lot of abbreviations. To assist the reader, we have prepared a Glossary of Terms in Appendix 1.

1.0.3 The M&WDF will consist of the Core Strategy combined with two further development plan documents. The follow-on documents will provide details on more specific locations and sites for minerals and waste (Mineral Sites Development Plan Document (DPD) and the Waste Sites DPD).

1.0.4 The Core Strategy will identify the need for and make provision for the amount of waste treatment, mineral extraction and recycling that will be required in the County up to the end of 2030. It will also identify the spatial pattern for minerals and waste development and identify broad areas showing where new facilities and sites are needed. It will safeguard existing mineral importation facilities at wharves and rail sidings.

1.0.5 The preparation of these documents is being undertaken in accordance with national legislation[(1)] and it is an important requirement that each stage of the plan making process is consulted upon widely. To comply with the legislation, Sustainability Appraisal issues must also be taken into consideration as the plan is progressed[(2)]

1.0.6 This consultation on the Strategy and Policy Directions of the Core Strategy is combined with the consultation at the first stage on the Mineral Sites DPD and the Waste Sites DPD (at Options Stage). Decisions on which sites should be selected for inclusion in the Sites DPDs will take place after the current consultation closes and all of the responses have been considered.

1.0.7 This is the second stage of consultation in the preparation of the Core Strategy. The first consultation at 'Issues' stage was run between 24th September and 19th November 2010. Whilst that consultation has now closed, the documents can still be seen on our website.[(3)]

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1 The Town and Country Planning (Local Development)(England) Regulations 2004 and The Town and Country Planning (Local Development)(England)(Amendment) Regulations 2008.

2 A Sustainability Appraisal is an appraisal of the economic, environmental and social effects of a plan from the outset of the preparation process to allow decisions to be made that accord with sustainable development.

3 See http://www.kent.gov.uk/environment_and_planning/

What is the Purpose of This Consultation Document?

1.0.8 This consultation provides an opportunity for everyone who is interested in how Kent provides for its future mineral supply requirements and how it manages and treats its waste arisings, to have an input into the plan making process.

1.0.9 This is the second stage of a three stage consultation process. It gives options for consideration in various part of the minerals and waste strategy, as well as providing consideration on the 'Preferred Options'[4] where applicable. It also provides details of the proposed delivery strategies for minerals and waste in Kent up to the end of 2030 and gives a suite of draft development management policies.

1.0.10 The next stage of the plan making process is the 'Pre-submission' stage which we anticipate will be held in November-December 2011. This will be the final consultation stage before the plan is submitted to the Secretary of State for consideration at an Examination in Public, which is to be held in June 2012.

1.0.11 Our preferred method of response is through our web-based consultation system.[5] If you prefer, you can respond by email:mwdf@kent.gov.uk or by post to **MWDF Project Team, Integrated Strategy and Planning, Environment and Highways Directorate, Invicta House, County Hall, Maidstone, Kent ME14 1XX**.

1.0.12 If you wish to discuss any matters in relation to this consultation, the Kent M&WDF team can be contacted on **01622 221602** or by fax on **01622 221635**.

How Can You Contribute?

1.0.13 We would like to receive your comments in relation to this consultation. We would be pleased to receive your comments before our deadline for responses which is **Friday 29th July 2011** at **17.00.**

1.0.14 If you would like to comment on a part of this document, just ignore the parts of the documents that you are not interested in. Your views, however short are welcomed.

planning_in_kent/minerals_and_waste/minerals__waste_core_strategy/issues_consultation.aspx

4 A Preferred Option is the solution which is preferred by the County Council after having considered all of the other alternatives and considered them against the requirements of sustainability appraisal (environmental, social and economic factors). The preferred option must be the most appropriate strategy when considered against the reasonable alternatives.

5 http://consult.kent.gov.uk/portal

Update on the Abolition of Regional Spatial Strategies

1.0.15 This report has been drafted with the knowledge that Regional Spatial Strategies will be revoked as part of the Localism Bill. The Regional Spatial Strategy for the South East is the South East Plan. However, until the Localism Bill becomes an Act of Parliament, Regional Spatial Strategies (RSSs) remain a material planning consideration. Therefore this document refers to policies within the existing South East Plan.

1.0.16 Guidance accompanying a letter from Steve Quartermain, the Chief Planner in Communities and Local Government to all Chief Planning Officers in Local Planning Authorities in England, dated 6th July 2010 required Planning Authorities in the South East to continue to plan for land-won aggregates using the quantities set out in the 'Proposed Changes' to the revision of the South East Plan Policy M3, published on 19th March 2010.[6]

1.0.17 Planning Authorities are also required to press on with their waste plans, providing enough land for waste management facilities to support the sustainable management of waste (including the move away from disposal of waste by landfill).

1.0.18 Mr Quartermain wrote to Chief Executives of all Waste Planning Authorities in England on the 10th January 2011 reminding them of the importance of putting into place local waste plans to ensure that the UK complies with European legislation. The EU Waste Framework Directive requires all waste planning authorities to have in place spatial waste management plans, and for those plans to contain specific information to ensure compliance with its requirements.

1.0.19 The current Government has also commenced work on replacing a large suite of national planning policy and guidance with one National Planning Policy Framework, which will be much shorter than the existing policy and guidance documents.

1.0.20 Whilst it is evident that the Regional Spatial Strategies will be removed from the planning system and this is likely to occur prior to the adoption of the Kent Minerals and Waste Core Strategy, it is important that work presses ahead with the preparation of the Kent M&WDF plans.

6 Whilst the letter abolishing the RSSs was quashed in the courts, the guidance attached to the letter remains relevant.

2 Minerals and Waste Development in Kent - A Spatial Portrait

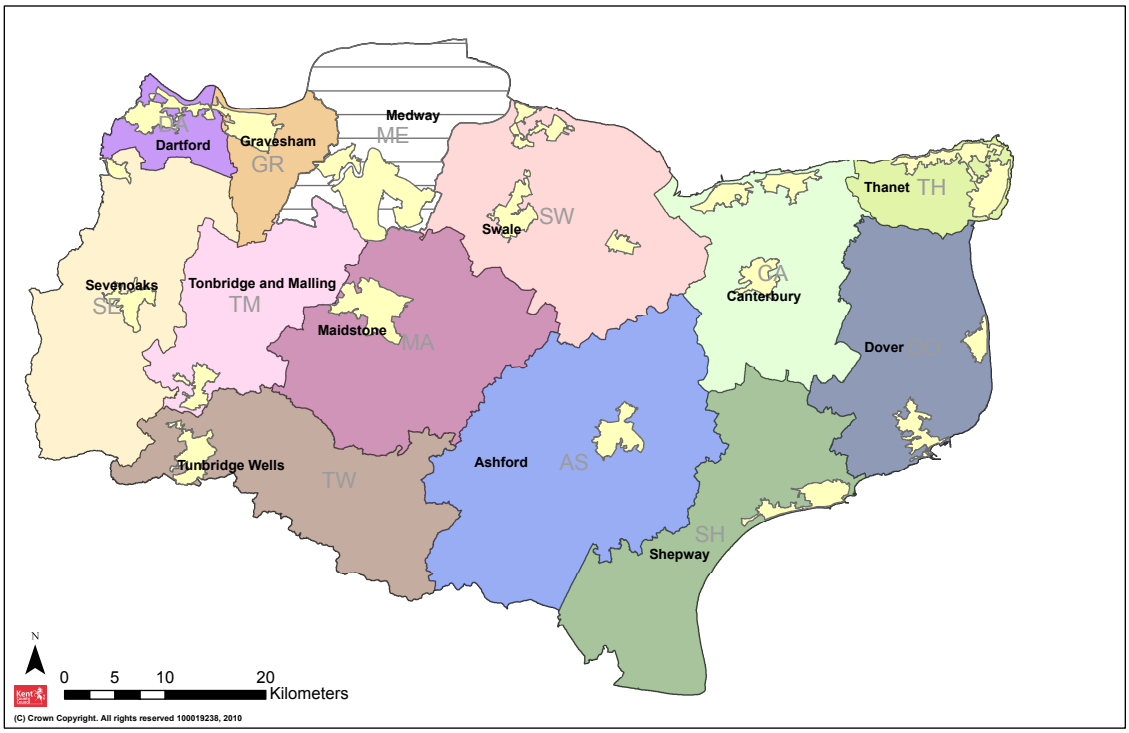
2.1 Introduction

2.1.1 Kent, 'The Garden of England', is unique. It is located in the south east corner of the United Kingdom, surrounded on two sides by water; the River Thames to the north and the English Channel to the south. It also neighbours London on its north-west perimeter. It has excellent communication links by road, rail and water with northern France, London, Essex and the South East of England.

2.1.2 With a population of 1.4 million people in 2008, it is the largest non metropolitan local authority area in England. Projected population growth for Kent is a 14.3% increase between 2006 and 2026, taking the total population of the county to 1.58 million people in 2026.

2.1.3 The county consists of 12 districts, as shown in Figure 1.[7]

Figure 1: Kent Districts



Kent Districts

7 The majority of the maps of Kent in this document are based on the administrative boundaries and hence Sheppey is not shown as an island. However the Key Proposals Map (and its insets) and Figure 12 show the coastline of Kent.

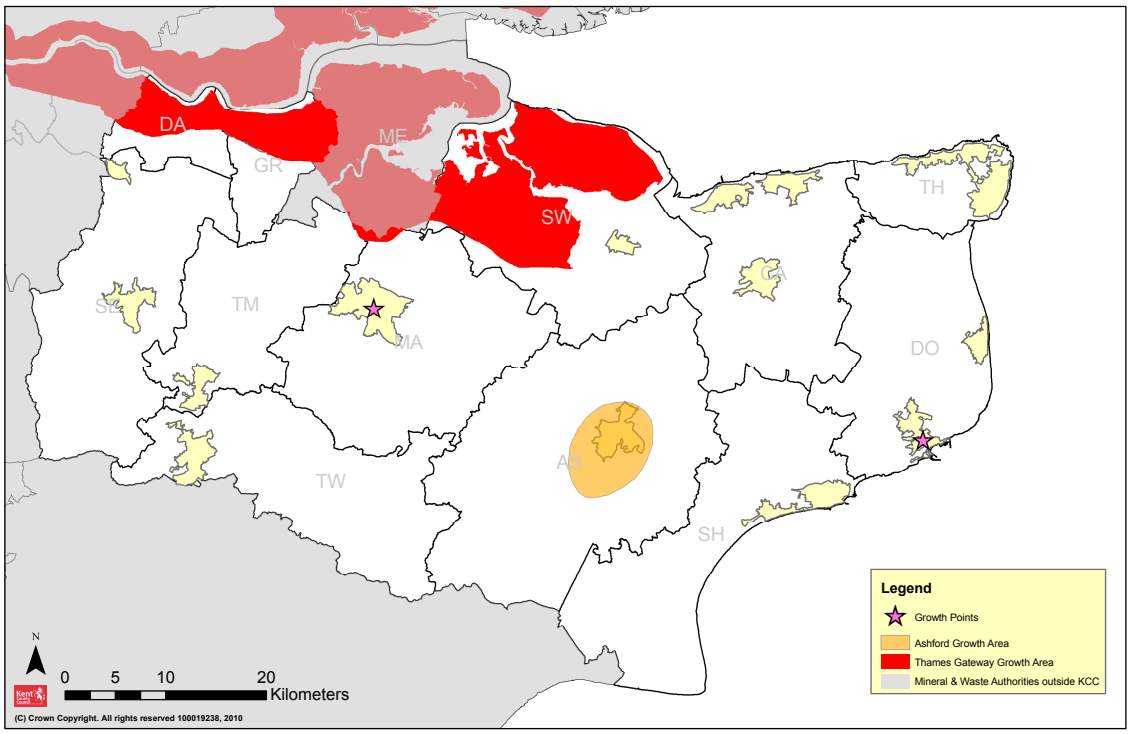
2.1.4 The population of Kent is not evenly spread throughout the county. North-west Kent is the predominant urban area as part of the Thames Gateway Growth Area. There are four growth areas in England, two of which are partially or wholly located in Kent, these are:

- the Ashford Growth Area, and
- the Thames Gateway (which stretches along the River Thames from Stratford and Lewisham in London out to Sittingbourne and Southend in Kent and Essex respectively). Within Kent, it contains parts of Dartford, Gravesham and Swale Districts and the Medway Unitary Authority.

2.1.5 There are also two growth points located within Kent, Maidstone and Dover. Growth points are defined as areas where local authorities can create sustainable growth policies to deliver new housing above their growth targets.

2.1.6 Despite the large urban areas within Kent, the rural areas of Kent are very important too; 85% of the county is defined as rural.

Figure 2: Growth Areas



Growth Areas

2.2 Kent's Environmental and Landscape Assets

2.2.1 Some areas and features of Kent are formally identified as being of national and international importance including:

- Areas of Outstanding Natural Beauty; North Downs AONB and High Weald AONB;
- Ramsar Sites and/or Special Areas of Conservation (SACs) and Special Protection Areas (SPAs);[8]
- A World Heritage Site; Canterbury Cathedral;
- National Nature Reserves (NNRs), Sites of Special Scientific Interest (SSSIs), statutorily protected wildlife species; nationally important archaeological sites (most of which are Scheduled), Registered Parks and Gardens of Historic Interest and listed buildings; and
- The Metropolitan Green Belt (shown on the key proposals map).

2.2.2 Kent's wildlife, geological, geomorphological,[9] landscape and historic environmental areas and features which are of particular importance at County level, or which make a contribution to biodiversity and geological conservation include:

- Local Nature Reserves;
- Local Sites (these are County Wildlife Sites and Regionally Important Geological and Geomorphological Sites);
- Species and Habitats listed as being of principle importance for the conservation of biodiversity in the UK (Section 74 of the CROW Act 2000);[10]
- UK lists of priority habitats and species;
- Kent Biodiversity Action Plan species and habitats;[11]
- Listed buildings, Conservation Areas and their settings;
- The setting of the World Heritage Site (Canterbury Cathedral);
- Landscape features of importance for wildlife that are essential for migration, dispersal and which enable the protection, conservation and expansion of native flora and fauna; and
- Kentish rivers and their settings.

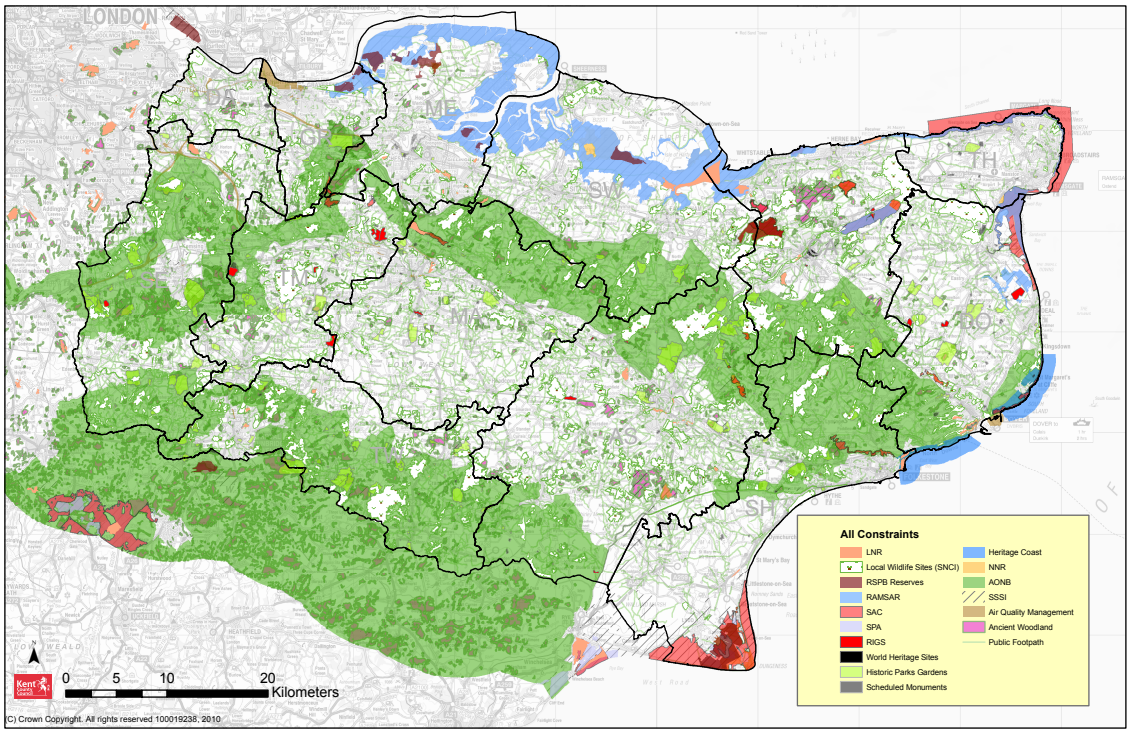
8 RAMSAR sites are sites designated under The Ramsar Convention (The Convention on Wetlands of International Importance, especially as Waterfowl Habitat) which is an international treaty for the conservation and sustainable utilisation of wetlands, i.e. to stem the progressive encroachment on and loss of wetlands.

9 Geomorphology is the scientific study of landforms and the processes that shape them.

10 Countryside and Rights of Way Act 2000.

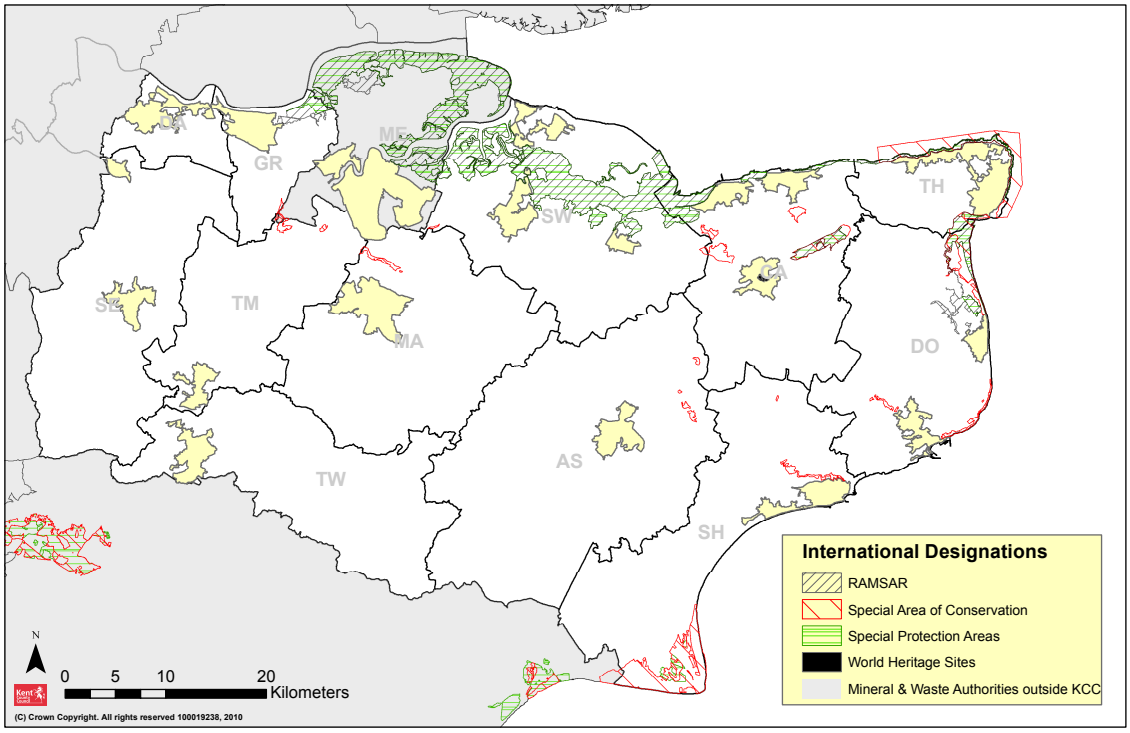
11 www.kentbap.org.uk

Figure 3: All Constraints



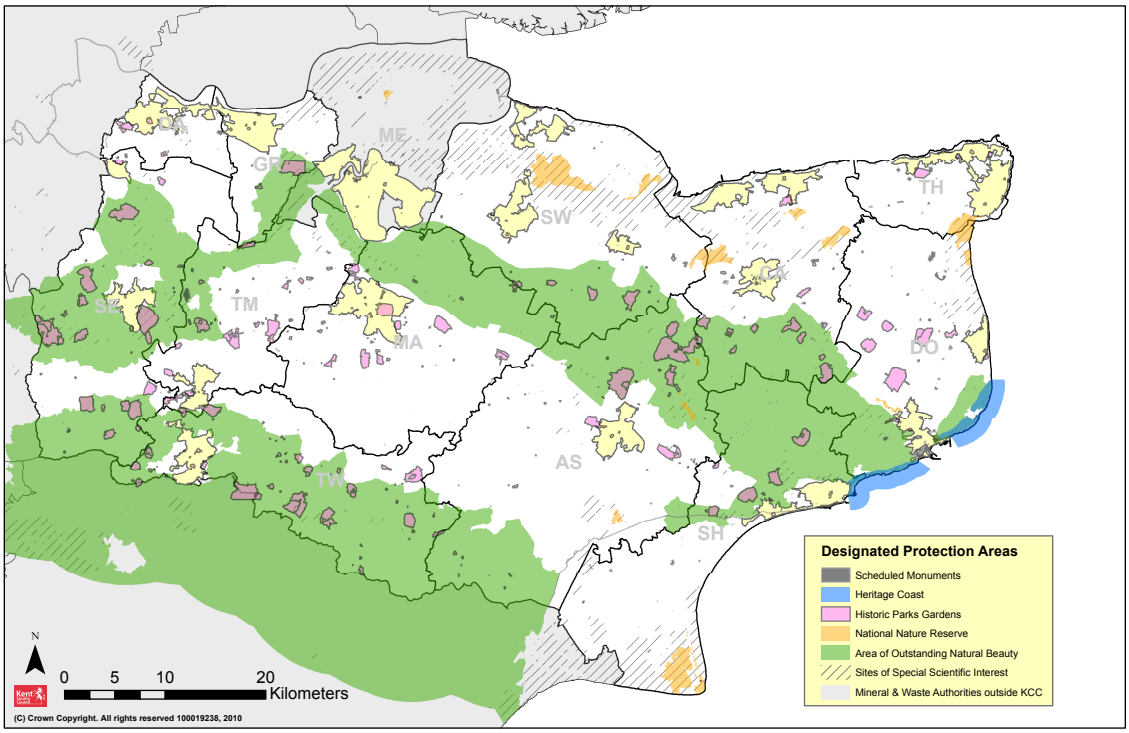
All Constraints

Figure 4: International Constraints



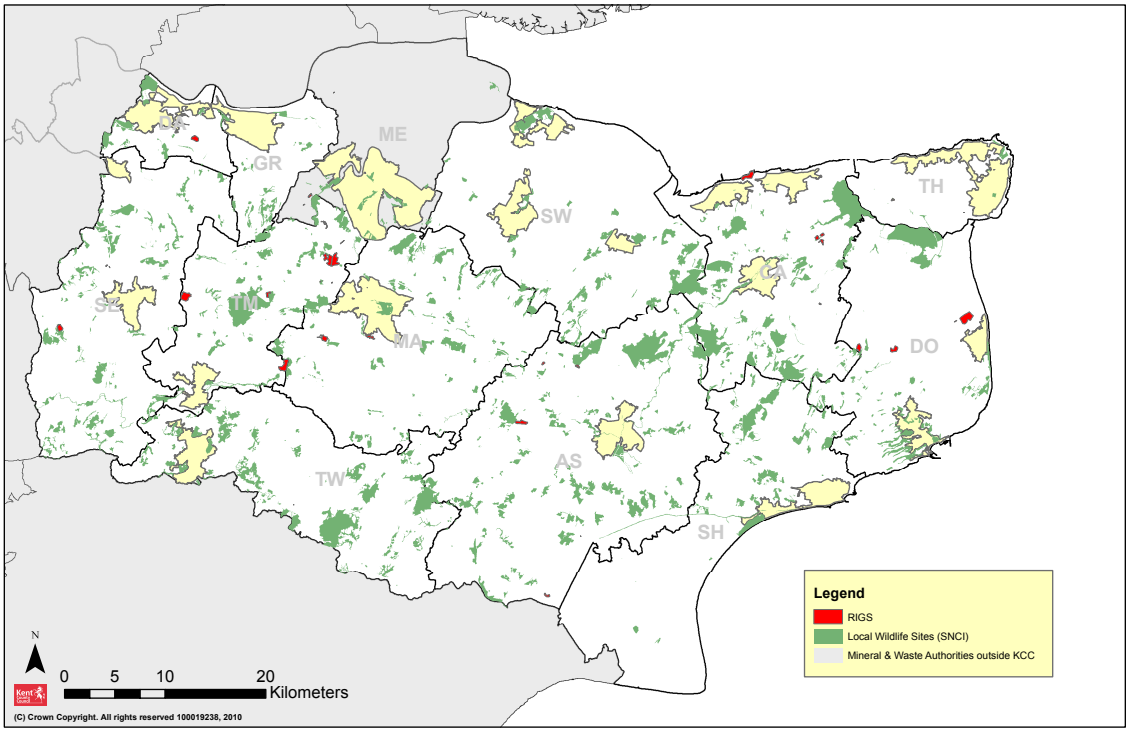
International Constraints

Figure 5: Nationally Important Designations



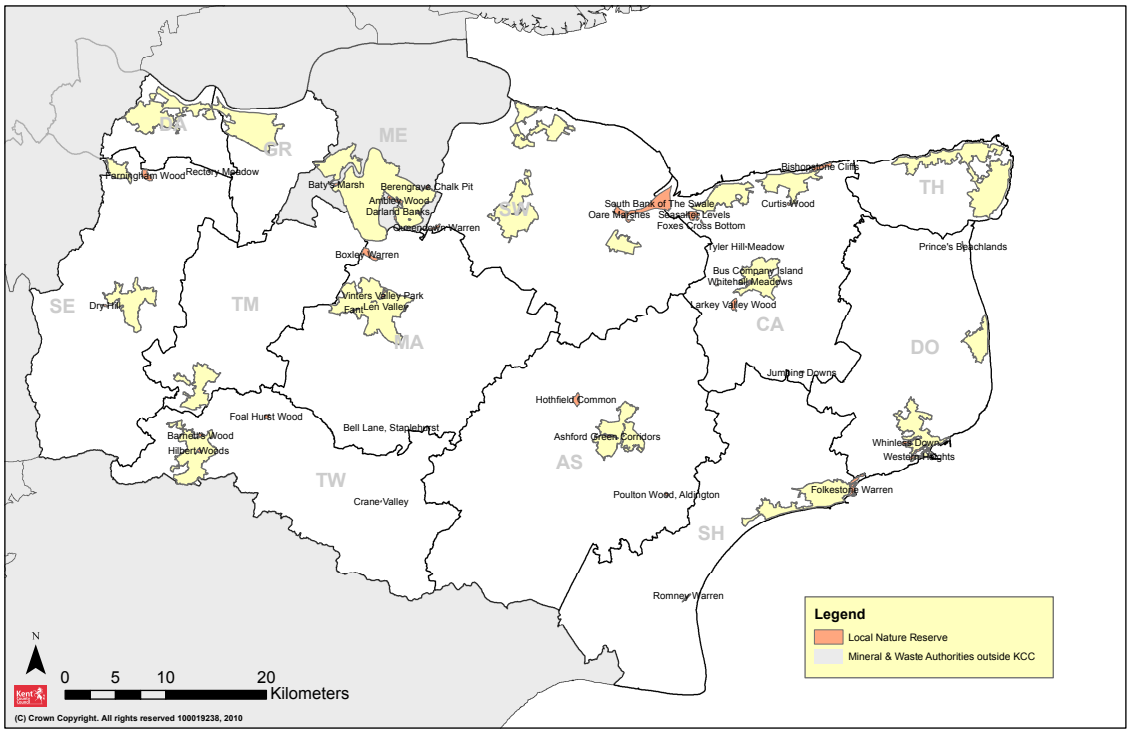
Nationally Important Designations

Figure 6: Local Wildlife Sites and RIGS



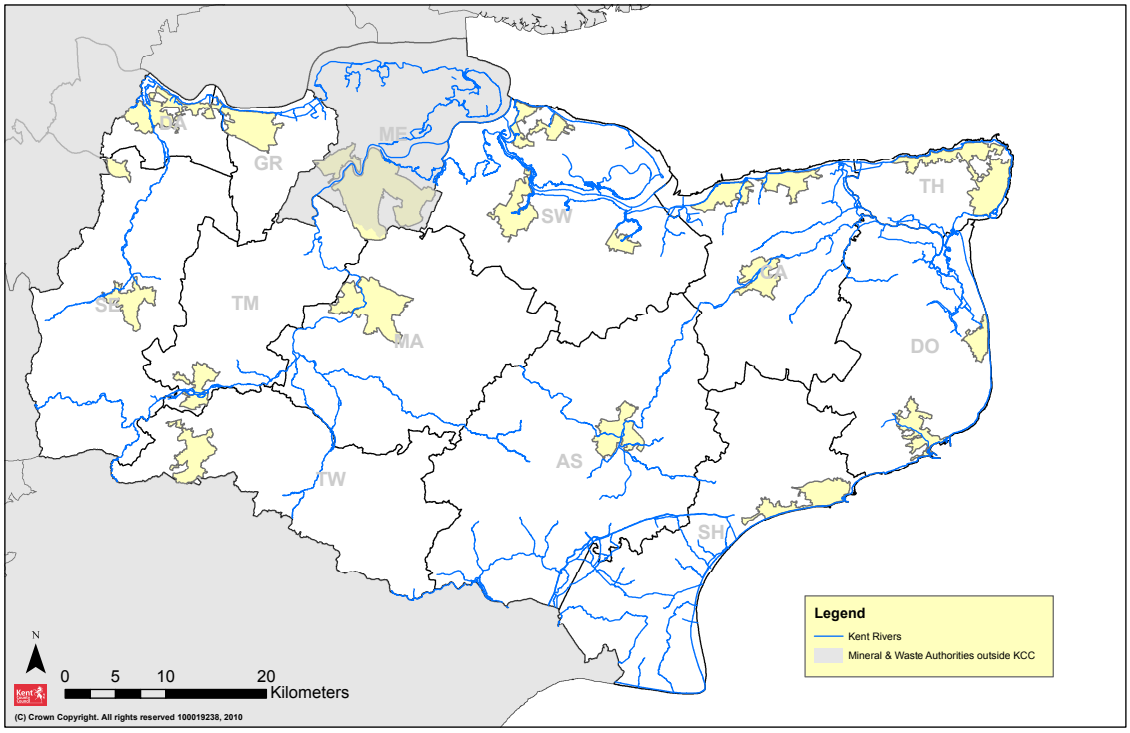
Local Wildlife Sites and RIGS

Figure 7: Local Nature Reserves



Local Nature Reserves

Figure 8: Rivers and Waterways



Rivers and Waterways

2.3 What are the Significant Economic Minerals in Kent?

2.3.1 The economic mineral resources of Kent reflect the complex geological, economic and social history of the area. Historically, the Coal Measures were of major economic importance until all East Kent Coal mines ceased operations by 1989. Until recently, Kent also had a thriving cement industry based on the chalk deposits of the Medway Valley and north-west Kent. There are now no active cement works in Kent, instead cement is imported into the county through a north Kent wharf.

2.3.2 Land-won construction aggregates are now the most economically significant mineral in the county.

2.3.3 Brickearth and clays have been used for brick and tile manufacture in Kent. These industries have declined in modern times. There remain some operational brick and tile works in Kent, although in one case, the brickearth resource is transported to East Sussex for brick manufacture. The Faversham area is the original source of the yellow London stock bricks. Hand made, Kent peg tiles are also manufactured at a small Weald Clay site south of Maidstone.

2.3.4 Large areas of Kent have also been licensed by Government for petroleum exploration and development, with a further exploration application submitted to Kent County Council which has been approved subject to finalising a S106 legal agreement.

2.3.5 As well as being rich in land-won minerals, Kent handles significant quantities of minerals (construction aggregates and cement) through its wharves and rail depots and is the biggest importer of marine dredged aggregates in the South East region.

2.3.6 Construction aggregates - sand, gravel and crushed rock - are the most significant (in quantity terms) worked and imported into Kent. They are used in the production of concrete and concrete products, mortar and asphalt.

2.3.7 Silica sand ('industrial sand') is recognised as a nationally important mineral[12] and is quarried from the Folkestone Beds (west of Maidstone).[13] Whilst the quality of the silica sand deposits in Kent are not as pure as those found in neighbouring Surrey, some of this material is used for industrial processes including glass manufacture and the production of foundry castings. It is also used in horticulture and for sports surfaces including horse menages and golf course bunker sand. There are no sites in Kent which provide only silica sand, all sites produce construction aggregate to some extent.

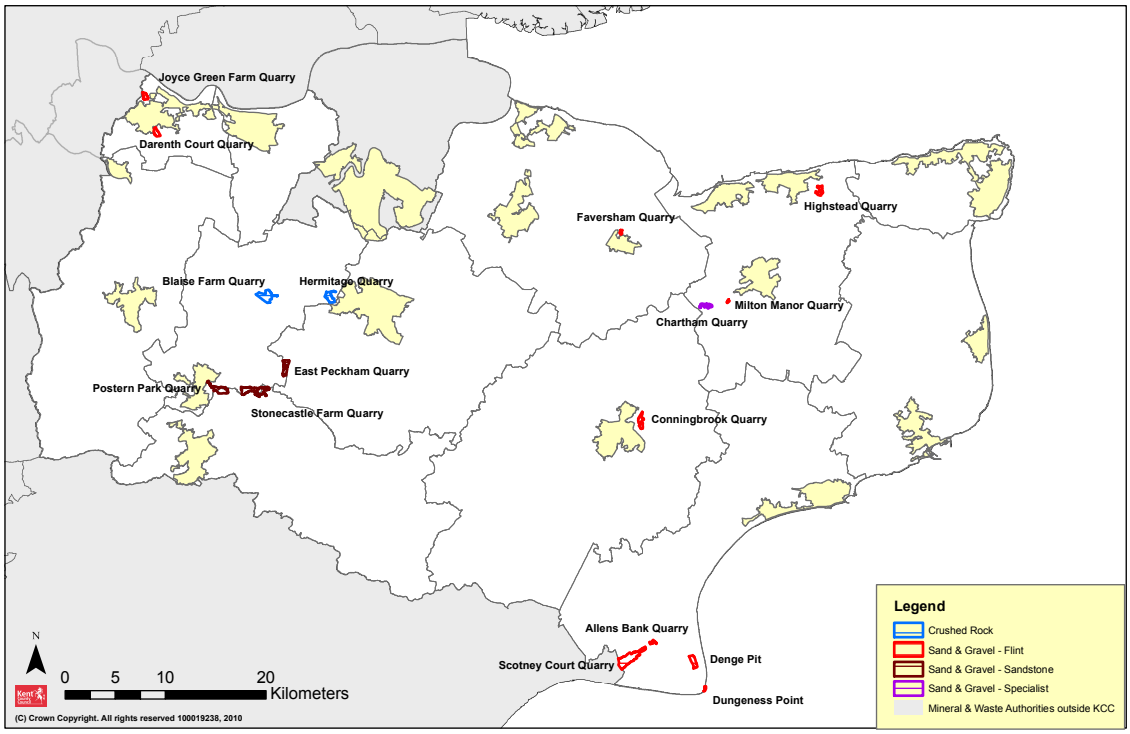
12 Minerals Planning Guidance 15: Provision of Silica Sand in England. Sept 1996, Department for Communities and Local Government.

13 GWP Consultants (March 2010). A study of Silica sand Quality and End Uses in Surrey and Kent. Final Report for Kent County Council.

2.4 Where are Minerals Extracted in Kent

2.4.1 There are 27 quarries in Kent permitted to extract sand and gravel or soft sand, out of which six are currently dormant. There are also two ragstone quarries in Kent, situated on the Hythe Beds to the west of Maidstone.

Figure 9: Existing Land-won Crushed Rock and Sand & Gravel Sites



Existing Land-Won Crushed Rock and Sand & Gravel Sites

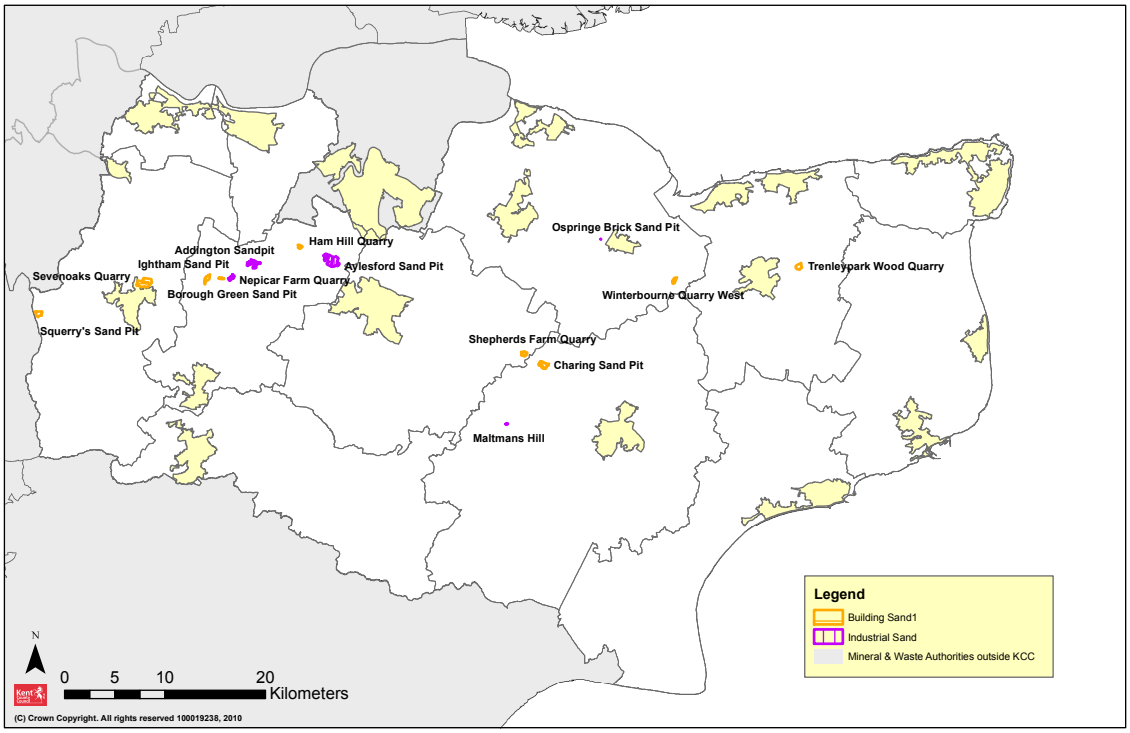
2.4.2 Historically sharp sand and gravel deposits[14] have been exploited along Kent's river valleys and in the Dungeness/Romney Marsh area. These reserves are to some extent becoming 'worked out' and replacement resources are generally constrained by landscape or nature conservation designations.

2.4.3 Soft sand (building sand) is extracted from seven quarries situated on the Folkestone Beds between Charing and Sevenoaks. Most of these sand quarries produce a combination of soft sand (building sand; a construction aggregate) and

14 Sharp sand and gravel is suitable for making concrete whilst 'soft sand' which is also referred to as 'building sand' is used for asphalt and mortar. The difference is normally in the grain size and shape.

specialist sand (silica sand),[15] in varying proportions. Kent does not produce the highest grade of silica sand used in the chemical, glass or ceramic industries, although glass sand has been produced in a number of locations in Kent in the past.

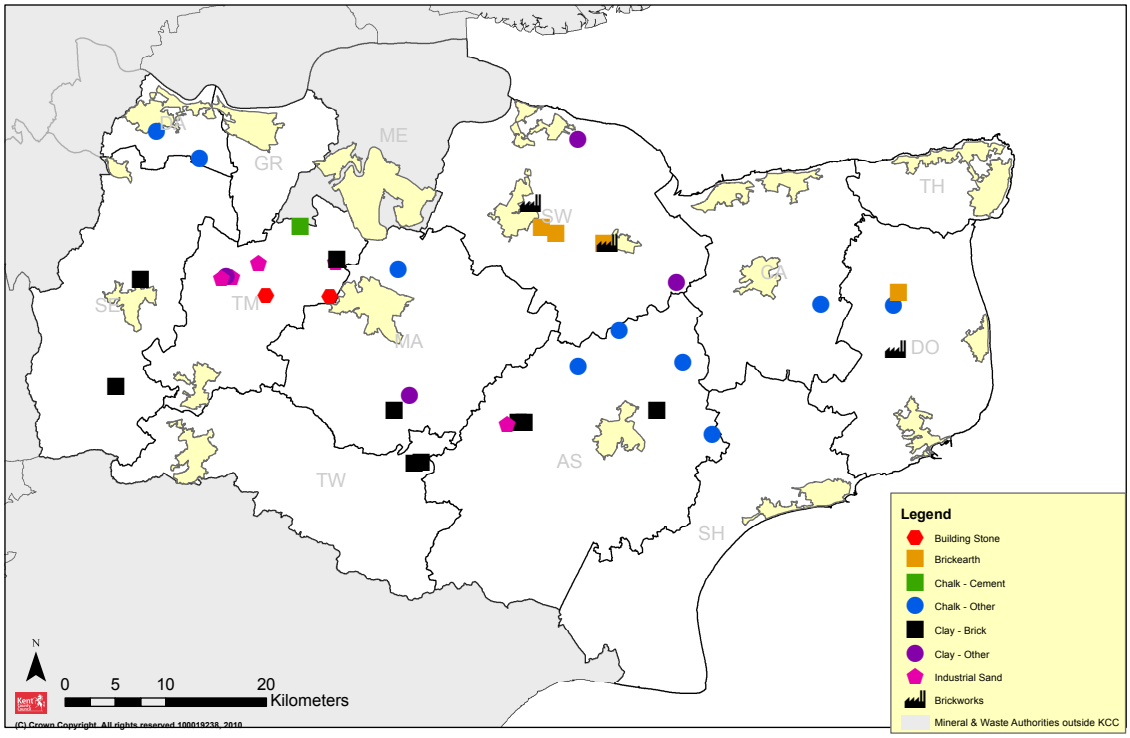
Figure 10: Existing Silica Sand and Building Sand Sites



Existing Silica Sand and Building Sand Sites

15 Specialist sand (silica sand) includes processed and unprocessed sand marketed for a wide range of specialist end uses. These include 'industrial sand' used for glass, foundry moulds, chemicals, ceramics, aircrete, bricks and tiles, paint, adhesive, grout, roof felt as well as 'non-construction aggregate' sand which is used for equestrian, sports and leisure purposes as well as horticultural sand.

Figure 11: Existing Land-won Other Minerals Sites



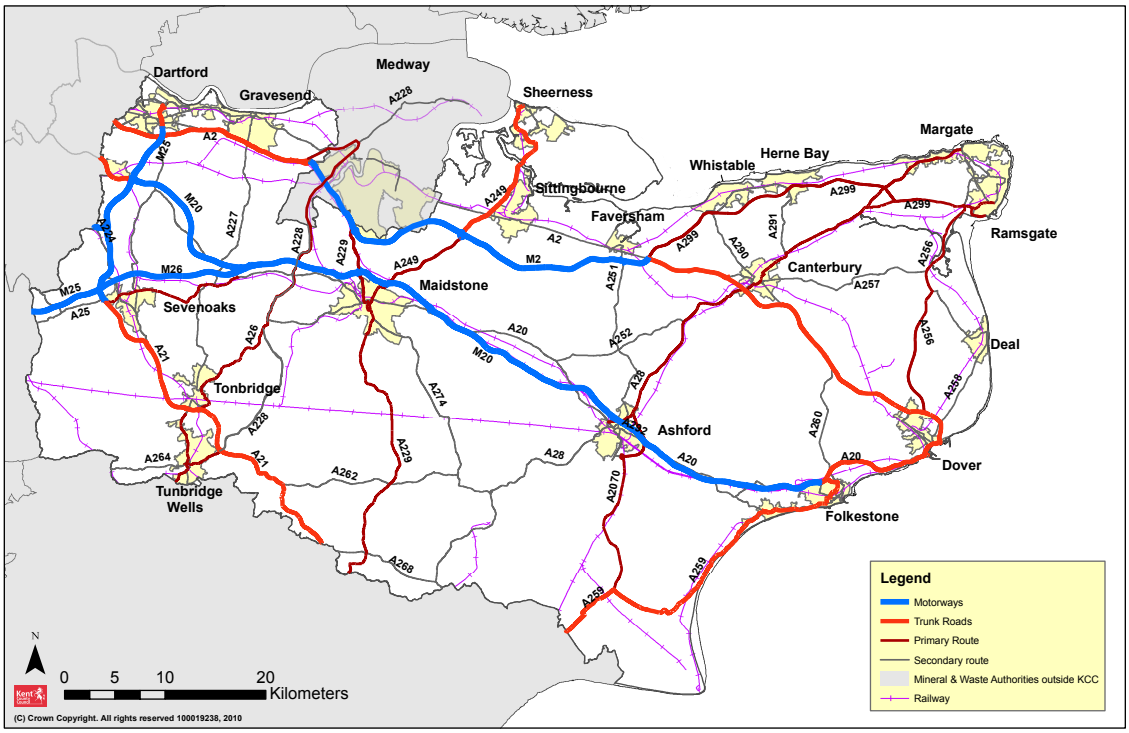
Existing Land Won Other Minerals Extraction Sites

2.4.4 Building stone, required for specialist or conservation building work, has historically been exploited from several different geological formations but is now provided only from the ragstone quarries of mid Kent. Other types of building stone including Tunbridge Wells Sandstone and Bethersden Paludina Limestone have been worked on a small scale in the past.

2.5 Kent's Waste Infrastructure

2.5.1 Kent has a large population with major urban areas in North Kent, Maidstone and Thanet and smaller towns throughout the county, some of which were established as industrial centres. It is an area of sustained development of housing, employment and infrastructure, and retains important manufacturing industries in addition to the service employment that is prevalent in the South East region. Taken together these features generate large volumes of municipal, commercial and industrial, and construction waste.

Figure 12: Transport Links



Transport Links

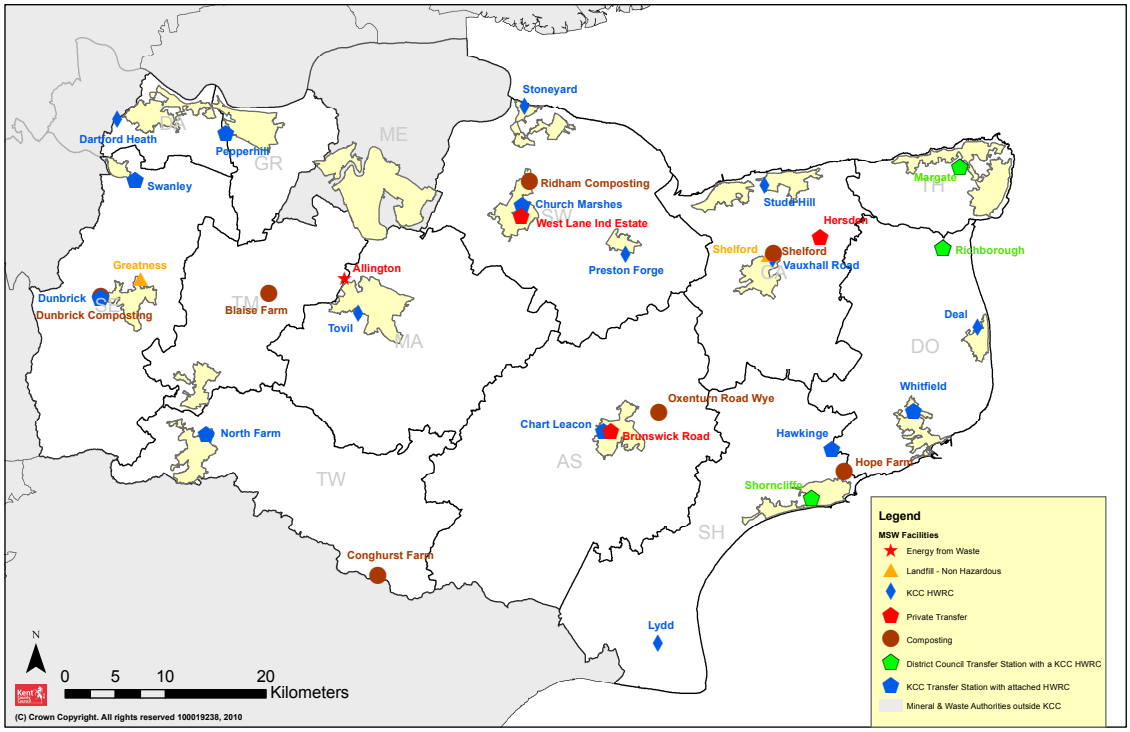
2.5.2 The two Growth Areas identified in the national Sustainable Communities Strategy[16] are planned to concentrate the future provision of housing – Ashford with an additional 31,000 homes by 2031[17] and the Kent Thames Gateway, which includes Medway, the urban areas of Dartford and Gravesham and the greater part of Swale, is to provide 48,000 homes by 2026.[18] Aside from the demands of an increasing population, the Growth Areas will generate significant amounts of Construction, Demolition and Excavation (CDE) waste, particularly in the Kent Thames Gateway where a high proportion of the development is taking place on previously developed land.

2.5.3 The district councils as collection authorities influence the rate of recycling of Municipal Solid Waste (MSW) in their areas but the county council, as the disposal and waste planning authority, must achieve targets and apply policies for the area as a whole. The Joint Municipal Waste Management Strategy[19] which provides guidance for the future direction of waste management in Kent will inform the MWDF.

16 Office of the Deputy Prime Minister (ODPM) (2003) Sustainable Communities. Building for the Future.
17 Ashford Core Strategy
18 South East Plan
19 Kent County Council (2007) Joint Municipal Waste Management Strategy

2.5.4 There is variation across the county in the location of existing waste management facilities. North and Mid Kent are relatively well served by facilities for transfer, treatment and recovery of MSW, but East Kent is less well served. Providing a balanced and accessible network of facilities is an objective of the MWDF.

Figure 13: MSW Facilities



MSW Facilities

2.5.5 The Allington energy from waste plant at Maidstone will take municipal waste from most of the county. It has additional capacity not contracted to the county council available for MSW or Commercial and Industrial (C&I) waste from East Kent or from outside Kent. It is enabling Kent to divert waste from landfill and to meet the national and regional targets for moving the treatment of waste "up the hierarchy".[20] Kent has a large new plant for enclosed composting of green and kitchen waste at Blaise Farm (near West Malling), and four large plants for separating dry recyclable material such as paper, cans and plastic.

2.5.6 Kent's geology coupled with its industrial past have lead to many former and current mineral workings in Kent, some of which are used for waste disposal. There are two non-hazardous landfill sites, two hazardous sites and numerous inert sites.

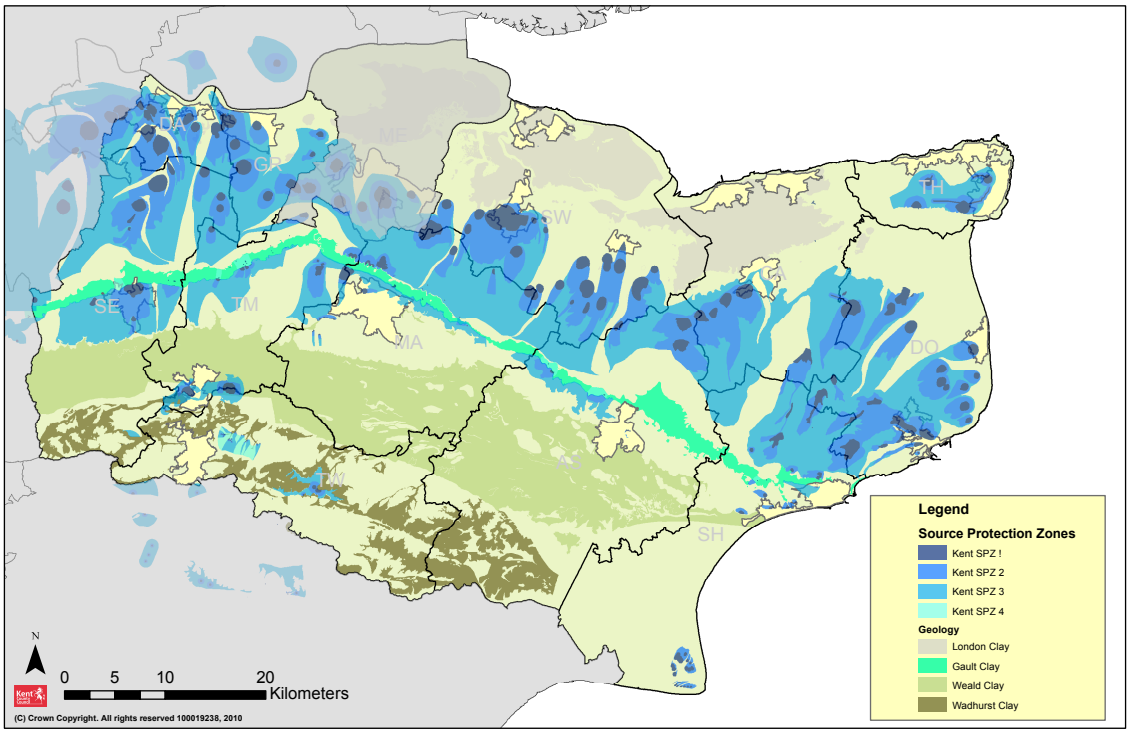
20 Waste Hierarchy is defined as the 3Rs of Reduce, Reuse and Recycle which classify waste management strategies according to their desirability. The 3Rs are meant to be a hierarchy, in order of importance, with disposal of waste to landfill at the bottom (least desirable option).

2.5.7 Kent is located close to London and parts of the county are accessible to Essex in the north, Surrey to the west and East Sussex to the south. There has long been cross border movement of waste; Kent has relied on landfill of MSW within the London area and Essex, and while this is coming to an end, commercial and industrial waste continues to be exported.

2.5.8 Increasing quantities of construction waste come into the county from London for landfill, and more recently some MSW has been transported to Kent to take the spare capacity in Kent's new waste treatment infrastructure.

2.5.9 The provision of waste management facilities is influenced by important national and international planning constraints. Geology and hydrology also constrain where waste landfill might be sited if required. Areas with clay geology, outside water Source Protection Zones which are not liable to flooding, may be suitable for future landfill subject to suitable engineering solutions and any local environmental impact being acceptable.

Figure 14: Kent's Major Clay Horizons and Water Resource Areas



Kent's Major Clay Horizons and Water Resource Areas

3 The Spatial Vision

3.1 Introduction

3.1.1 Producing the new Kent Minerals and Waste Development Framework (MWDF) gives an opportunity to take a fresh look at minerals and waste issues and to take some bold steps towards delivering improvements in mineral supply and waste resource management based on the principles of sustainable development.

3.1.2 Identifying a vision for minerals and waste in Kent allows us to translate broad sustainability principles and put them into a context that is relevant to our communities and businesses.

3.1.3 In short, the aim is to enable waste to be considered as a valuable resource, whilst at the same time providing a steady supply of minerals to allow sustainable growth to take place. It will also ensure that emerging national and local requirements such as a low carbon economy are taken into consideration.[21]

3.1.4 As the MWDF will plan for minerals and waste in Kent up to the end of 2030, it is important to recognise that technology will change over the plan period. Therefore, the plan has to be robust enough to enable improvements in technology to be incorporated into future minerals and waste facilities.

21 A Low-Carbon Economy (LCE) or Low-Fossil-Fuel Economy (LFFE) is an economy which has a minimal output of greenhouse gas (GHG) emissions into the biosphere, but specifically refers to the greenhouse gas carbon dioxide.

3.2 Draft Spatial Vision for Minerals and Waste in Kent

Throughout the plan period to 2030, minerals and waste development will make a positive and sustainable contribution to the Kent area and assist progress towards a low carbon economy. It will support needs arising within the growth areas in Kent Thames Gateway and Ashford, the Maidstone and Dover Growth Points and the county's other urban areas including Folkestone, Tunbridge Wells, Tonbridge, Sevenoaks, Sittingbourne, Canterbury and Margate. Through collaborative working with communities, landowners, the minerals and waste industries, the environmental, voluntary sector and local planning authorities, deliverable, cost effective, sustainable solutions to Kent's future needs for minerals and waste will be provided.

The development of the Kent minerals and waste framework will embrace the naturally and historically rich and sensitive environment of the Plan area and ensure that it is protected and enhanced for future generations to enjoy.

Planning for Minerals in Kent will:

- Deliver a sustainable, efficient supply of land-won minerals including aggregates, silica sand, brickearth, chalk and clay and minerals for cement manufacture;
- Facilitate the processing and use of recycled aggregates, especially in the growth areas and growth points and become less reliant on land-won construction aggregates;
- Restore minerals sites to a high standard to promote biodiversity and recreation uses. Restoration schemes will contribute to the provision of Biodiversity Action Plan habitats integrating habitat creation within wider habitat networks; and
- Safeguard future supplies of land won economic minerals and all mineral importation facilities (wharves and railheads).

Planning for Waste in Kent will:

- Move waste up the waste hierarchy, reducing the amount of non hazardous waste sent to landfill;
- Encourage waste to be used to produce renewable energy incorporating both heat and power;
- Ensure, waste is handled close to its source of production;

- Make provision for a variety of waste management facilities to ensure that Kent remains at the forefront of waste management, and has solutions for all major waste streams, whilst retaining flexibility to adapt to changes in technology; and
- Plug the 'gaps' in current provision for waste management especially in East Kent.

4 Strategic Objectives for the Minerals and Waste Core Strategy

4.0.1 Whilst the vision describes what will be achieved, the objectives explain how the vision will be achieved.

4.0.2 By monitoring and reviewing progress against these objectives, it will be possible to see how much progress is being made in working towards achieving these requirements. It will also show whether the policies are having the required effects and help to identify what may need to be done to improve things.

4.0.3 The proposed vision outlines our ambition for sustainable resource management[22] in the plan area to the end of 2030. All of the objectives that follow are underpinned by an ambition to manage waste and mineral extraction and supply according to the principles of sustainable development, supporting the national strategy for Sustainable Communities and the delivery of Kent's community strategies.

4.0.4 A chart showing how the vision, objectives and policies relate to one another is given in Appendix B.

Draft Strategic Objectives (in no particular order of priority)

General

1. Promote sustainable modes of transport for moving minerals and waste long distances and minimise road miles.

2. Ensure minerals and waste developments contribute towards the minimisation of and adaptation to the effects of climate change.

3. Ensure minerals and waste sites are sensitive to their surrounding environment and communities and minimise their impact on them.

4. Enable minerals and waste developments and contribute to the social and economic fabric of their communities through employment opportunities.

Minerals

5. During the plan period, deliver adequate and steady supplies of chalk, brickearth, clay, silica sand, crushed rock, building stone and sand and gravel through allocating sufficient number of sites and safeguarding mineral bearing land.

22 sustainable development is considered to be 'a pattern of resource use that aims to meet human needs while preserving the environment so that these needs can be met not only in the present, but also for generations to come'.

6. Promote the use of recycled and secondary aggregates in place of land won minerals.

7. Safeguard wharves and railheads across the County to enable the ongoing importation of marine dredged aggregates, crushed rock and other minerals.

8. Enable the small scale, low intensity extraction of minerals for heritage building products.

9. Restore minerals sites to the highest possible standard and incorporate opportunities for biodiversity to meet targets outlined in the Kent Biodiversity Action Plan as well as for recreation and employment uses.

10. Encourage the sustainable use of the unrecyclable fraction of Construction, Demolition and Excavation Waste for quarry restoration.

Waste

11. Increase amounts of Kent's waste being re-used, recycled or recovered and promote the movement of waste up the waste hierarchy by enabling the waste industry to provide facilities which enable a major reduction in the amount of Kent's non-hazardous waste being disposed of in landfills.

12. To promote the handling of waste close to the source of production in a sustainable manner using appropriate technology and where applicable innovative technology.

13. Use waste to provide opportunities for the generation of renewable energy for use within Kent through energy from waste and other mechanisms such as gasification and anaerobic digestion.

14. Provide additional waste sites and expansion of existing sites, where appropriate to enable waste to be handled in a sustainable manner.

5 Kent's Options for Minerals

5.0.1 This stage in the plan making process requires a consideration of spatial and policy options, considering locations of future minerals and waste developments. Options can only be considered in plan making if they are realistic, comply with national planning policy and are deliverable. Some subjects that are being considered as part of this plan making process do not have any realistic options.

5.0.2 The choice of options, where indicated, has been made after due consideration of the following:-

- the Sustainability Appraisal commentary report [(23)] which evaluates economic, social and environmental issues;
- Consideration of the deliverability[(24)] of the options, including whether they can be realistically achieved at the required time; and
- The views of stakeholders in response to the Core Strategy 'Issues' consultation.

5.0.3 This section of the report therefore needs to consider options that were suggested by stakeholders in response to the Core Strategy 'Issues' consultation, as well as options that were discussed in that consultation. Planning Policy Statement 12 Local Spatial Planning[(25)] requires the plan to contain policies and proposals which are the most appropriate when considered against reasonable alternatives. The Core Strategy must be able to deliver its objectives. The following options may be considered:-

- growth options (how much development);
- spatial options (where);
- phasing options (when); and
- implementation options (by what means).

Alternative Options for the Location of Minerals Development

23 Scott Wilson (Prepared for Kent County Council) Sept 2010 Final Report, Minerals and Waste Core Strategy Issues Consultation Sustainability Appraisal Commentary

24 'Deliverability' is defined in Planning Policy Statement 12. It means that the Core Strategy should be based on sound infrastructure delivery planning, ensure that there are no regulatory or national planning policy barriers such as threats to protected wildlife sites and landscapes or sites of historic or cultural importance; ensure that partners who are essential to the delivery of the plan are signed up to it, including landowners and developers; and be coherent with the core strategies prepared by neighbouring authorities, where cross boundary issues are relevant

25 Communities and Local Government (2008) Planning Policy Statement 12: Creating Strong Safe and Prosperous Communities Through Local Spatial Planning (para 4.38).

5.0.4 These options govern the level and distribution of development for minerals and waste in Kent. PPS12 [(26)] advises that to reduce the need to frequently update core strategies, Local Planning Authorities (LPAs) should take a long term view and consider contingencies in order to provide flexibility. However, future mineral working sites in Kent can only be located where the minerals are found in sufficient quantities and at a suitable quality to make their extraction viable. They also need to be available to operators for consideration and future extraction.

Broad Principles for Mineral Supply and Safeguarding

- Economic mineral resources will be safeguarded against other forms of development. Safeguarding will cover land-won minerals including sharp sand and gravel, soft sand, silica sand, ragstone, building stone and chalk and clay for cement manufacture;

- All existing operational (and planned) mineral importation wharves and railheads will be safeguarded from other forms of development as well as from incompatible development in close proximity to the safeguarded site, in order to minimise the risk of conflict and possible loss of the facility in the future;

- The M&WDF Mineral Sites Development Plan Document (DPD) will identify 'Specific Sites' for land-won mineral extraction, wherever possible and practicable. These are areas where operator confidence is such that the mineral quality and quantity have been defined and infrastructure requirements needed to enable mineral extraction to occur are understood and the sites are deliverable.

- Specific Sites will be identified (where possible) for the following types of land-won minerals, which have been identified as having an insufficient stock of planning permissions to provide national landbank requirements throughout the plan period:- sharp sand and gravel, soft sand (building sand), silica sand, brickearth, the raw materials for cement manufacture & building stone.

- If the Kent Mineral Sites DPD is unable to identify sufficient 'Specific Sites' to meet land bank requirements for the plan period for any of the economic minerals, sites identified from within broader 'Areas of Search' will be acceptable for the later parts of the plan period or where no deliverable 'Specific Sites' have been identified;

- In the case of crushed rock, chalk for agricultural and engineering purposes and clay for sea defences and engineering purposes, there is currently no apparent need to identify sites to provide further supplies of these types of land-won mineral, (due to the stock of existing planning permissions being sufficient to cover landbank requirements up to the end of the plan period and beyond). However, policies will need to be flexible enough to allow for situations where factors change during the plan period, (for example existing sites closing prior

26 Communities and Local Government (2008) Planning Policy Statement 12: Creating Strong Safe and Prosperous Communities Through Local Spatial Planning (para 4.46)

to mineral extraction ceasing). The fundamental policy aim must be to ensure a steady and adequate supply of all of Kent's economic minerals and to take into account the need for contingencies, should situations change;

- The M&WDF will identify a mix of site types for the recycling of construction and demolition wastes (C&D wastes) to enable the provision of a supply of secondary and recycled aggregates to meet the South East Plan requirements for Kent (ie 1.4 million tonnes per annum by 2016). These sites will be well located & environmentally acceptable, including a mix of temporary facilities at quarries, wharves and railheads and permanent facilities. As Kent currently has a network of these sites with planning permission (sufficient to deliver the level of recycled and secondary aggregates in the South East Plan), there is no need to identify any of these sites as a 'Strategic' site in the Core Strategy. New C&D locations for aggregate recycling facilities will therefore be identified in the Mineral Sites DPD. Wherever possible and acceptable in environmental terms, every quarry in Kent which needs inert fill for restoration will be encouraged to incorporate an aggregate recycling facility in its operations. Wharves and railheads are also likely to be suitable locations for these facilities, if space and environmental considerations permit.

- The M&WDF will give policy support to proposals which plan to re-work inert waste that has previously been deposited in landfills, if this can occur in a way which does not adversely impact upon the environment.

- In order to enable future exploration and possible development of oil, coal-bed methane and gas in Kent, a criteria based policy will give encouragement to such exploratory projects, subject to the minimisation of any risk to surface water and groundwater receptors and associated habitats.

Site Specific Options for Allocating Areas or Parcels of Land for Minerals and Waste Uses

5.0.5 There were insufficient site proposals put forward to consider various broad locational options for mineral supply in the future. However, minerals can only be worked where they are found and the M&WDF has to identify sites that are 'deliverable'.

5.0.6 Site allocations for land-won minerals and importation facilities will therefore be progressed as part of the Mineral Sites DPD.

5.0.7 Coalbed methane, oil,gas and underground limestone exploration issues will be covered by policies in the Core Strategy.

5.0.8 The Coal Authority has confirmed that there are no proposals foreseen to re-establish coal mining in Kent.

5.1 Strategic Sites

5.1.1 Planning Policy Statement 12 allows strategic sites to be identified in the Core Strategy. Strategic Sites are those sites that are central to the achievement of the Strategy. Core Strategies should not be held up by the inclusion of non-strategic sites.

5.1.2 Stakeholders have given suggestions for Strategic Sites to be considered for inclusion in the Core Strategy. These were as follows:-

Option 1

Suggestions for Strategic Sites for Minerals

- **Option 1A** -The permitted, but as yet, undeveloped **cement works at Medway Works, Holborough** (which straddles the Medway/ Kent administrative boundary) and its associated, permitted, land-won minerals needed to supply the cement works. The operators have indicated that if and when this site is to be developed, the proposed design, geographic layout and life of the plant would need to be reconfigured through the planning process. The existing planning permission reflects the plant design and layout that was suitable at the time of the permission (2001). This would mean that a change to the approved planning permissions would be essential before the facility could be constructed;

- **Option 1B - Northfleet Bulk Aggregate Import Terminal**, which has now been granted planning permission subject to Section 106 legal agreements. As it has an extant planning permission, there is no need to identify it as a 'Strategic Site', instead in will be safeguarded in policy;

- **Option 1C -** The ragstone quarry at **Hermitage Farm, Maidstone**, which currently is the subject of a planning application for a major extension. The operator of this site considers it to be the only realistic means of delivering the required 0.78million tonnes per annum (mtpa) ragstone landbank. However, the stock of planning permissions that makes up the ragstone landbank is currently well in excess of the County's needs for the plan period;

- **Option 1D** - The extraction of clay at **Norwood** to provide void space for hazardous waste disposal. The stock of planning permissions for clay for engineering and sea defence work is more than sufficient for the plan period;

- **Option 1E** - The underground limestone mine at **Richborough.** This is in a similar situation to the ragstone deposits in that the crushed rock landbank is more than needed for the plan period, so there is no need to identify this site as a site allocation, instead the surface working area can be covered by a safeguarding policy;

- **Option 1F -** Operational wharves at **Greenhithe (Johnsons Wharf) and Northfleet Work**s. As these are operational they do not need to be strategic sites, instead they will be covered by safeguarding policies; &

- **Option 1G** - Other unspecified wharves and rail connected facilities with known connectivity /jetty capability that must be preserved for the future. Again, these will be better covered by safeguarding policies.

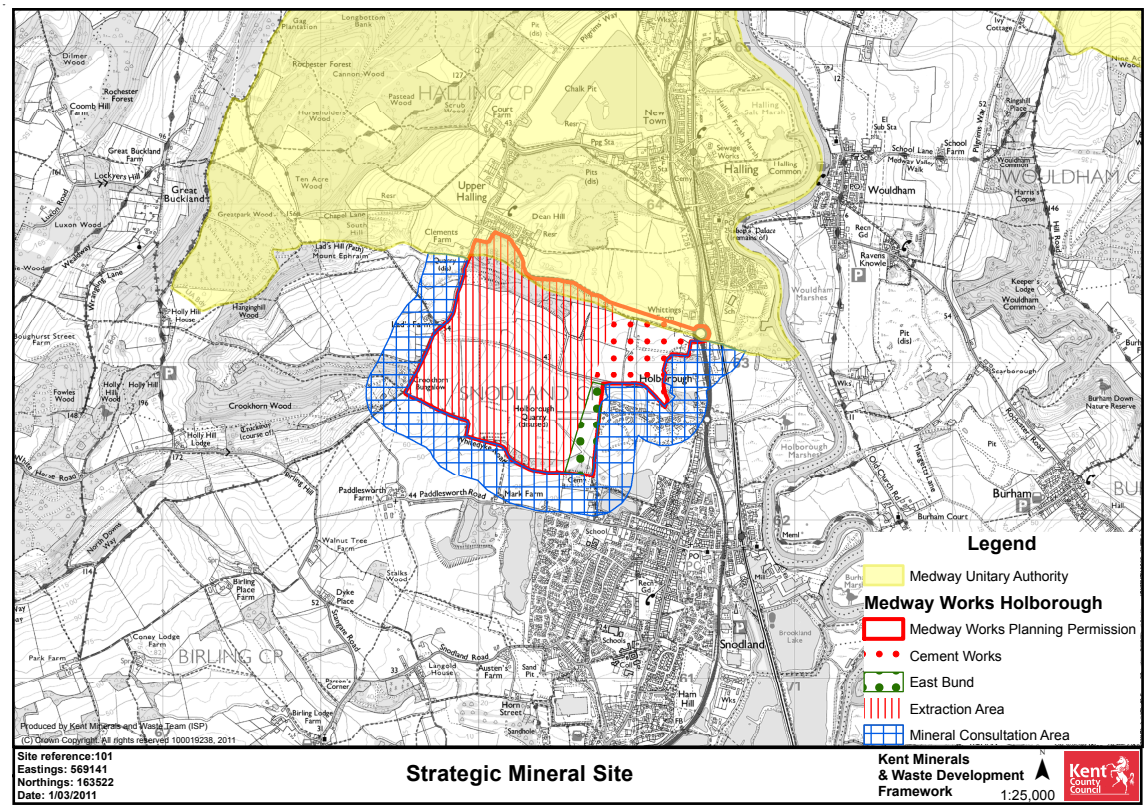
5.1.3 Out of these, the only site named in the list which would be central to the achievement of the strategy for minerals is Option 1A, the consented cement works and its associated mineral reserves at **Medway Works, Holborough.** The preferred option for a strategic site for minerals is therefore Medway Works, Holborough. This is because of three factors:-

- the national minerals policy requirements in MPG10 for extended landbanks for cement works[(27)]
- despite Kent having been the heartland of UK cement manufacture in the past, there are no cement works remaining in the County, this site is likely to be the only opportunity to re-establish cement manufacture in Kent; &
- KCC's support for this development in 2001, at the time of the planning permission.

5.1.4 It is therefore proposed to include this site as a 'Strategic Site' in the Core Strategy, to ensure that when the operators decide to proceed with the development of this site, the Core Strategy is supportive of this, subject to consideration of normal development management issues at planning application stage. The Medway Works, Holborough site location is shown on Figure 15 below.

27 Communities and Local Government (Nov 1991) Minerals Planning Guidance 10: Provision of raw material for the cement industry.

Figure 15: Medway Works Holborough



5.2 Land Won Minerals

5.2.1 These were discussed in the Core Strategy 'Issues' document. Where additional (realistic) options were suggested in response to the consultation by stakeholders, these have been included in the options being considered below.

Option 2

Sand and Gravel

Option 2A - Identify sufficient land-won sand and gravel sites to make provision for the whole of the plan period at the level of provision given in revised Policy M3 of the South East Plan (i.e. circa 27mt);

Option 2B - Identify sufficient sand and gravel sites to make provision for an additional 10% over and above the required land bank levels, in order to give flexibility in terms of maintaining supply over the plan period (i.e. circa 30mt);

Option 2C - Identify sufficient sand and gravel sites to make provision for only a part of the plan period and rely on regular policy reviews.

5.2.2 The Sustainability Appraisal commentary and the majority of responses from the Core Strategy 'Issues' consultation have confirmed that Option 2B should be the 'Preferred Option', should sufficient suitable sand and gravel sites be identified in the site appraisal process. This decision is supported by the following:-

- The revised aggregate apportionment levels in the revised South East Plan Policy M3[(28)(29)] have been supported by Kent County Council throughout the policy review consultation and Examination in Public process; and

- An initial review of the submitted sand and gravel sites indicates that the level of site allocations required as the outcome from revised Policy M3 is likely to be achievable;

5.2.3 There would not therefore be any reason to change the strategy for sand and gravel land banks at present. Option 2C would not meet national planning policy criteria in PPS12 and MPS1, unless there is a sound evidence base reasons to deviate from the agreed apportionment levels.

5.2.4 The Core Strategy Policy for Sand and Gravel Provision will be based on the need to make provision for the land-won sand and gravel apportionments stated in revised policy M3 (i.e. 1.63million tonnes per annum), with an additional 10% for flexibility purposes. Option 2B is the preferred option, subject to there being sufficient deliverable sites available resulting from the 'Call for Sites'.

28 Government Office for the South East (March 2010). The South East Plan. The Secretary of State's Proposed Changes. Regional Spatial Strategy for the South East. Policy M3 - Primary land-won aggregates and sub regional apportionment

29 Examination in Public Panel Report (November 2009) Partial Review of the Regional Spatial Strategy for the South-East Aggregate.

5.3 Crushed Rock (Ragstone and/or Underground Limestone)

Option 3

Crushed Rock (Ragstone and/or Underground Limestone)

Option 3A Do not identify any crushed rock (ragstone and/or underground limestone) sites as the landbank for crushed rock is more than sufficient for the plan period and beyond (taking into account an extra 10% for flexibility). The proposed location for the surface workings for the underground limestone mine and remaining economic reserves of ragstone should be covered by safeguarding policies only;

Option 3B An alternative approach to the managed aggregate supply system, put forward by an operator was as follows. The managed aggregate supply system requires forward planning for a combination of sources of aggregates from the following supply routes - land won crushed rock, land won sand and gravel, imported aggregates by sea and rail, marine dredged aggregates and recycled aggregates. The alternative proposal is to rearrange the balance between these types of materials with crushed rock from Hermitage Quarry and its proposed extension substituting for imported crushed rock and land-won sand and gravel.

5.3.1 The results of the Sustainability Appraisal commentary as well as the responses to the Core Strategy 'Issues' document indicate that option 3A is the preferred option. No sites need to be identified for further ragstone working in the plan period or for underground limestone mining. However to allow for flexibility in the plan making process, it is considered prudent to prepare emerging policy on the basis that there may be the possibility of an alternative supply of crushed rock required in the plan period, if the large (consented) deposit at Blaise Farm is found to be uneconomic for an extended period, and remains largely unworked.

5.4 Sand and Gravel Landbank

Splitting the Sand and Gravel Landbank into Sharp Sand and Gravel and Soft Sand

Option 4

Option 4A - Do not split the sand and gravel apportionment for sand and gravel, keeping it as one amalgamated landbank figure;

Option 4B - Split the apportionment at 40% soft sand and 60% sharp sand and gravel (based on recent sales data);

Option 4C - Split the apportionment at a different percentage which takes into account the availability of alternative sources (substitutes) for sharp sand and gravel including marine dredged aggregates, imported hard rock and recycled aggregates.

Option 4D - Split the apportionment between soft sand and sharp sand and gravel through some other ratio.

Option 4E - An alternative option proposed by an operator was as follows: Accept that the Upper Medway Valley sandstone deposits forms a different type of construction aggregate from sharp sand and gravel and soft sand (building sand) to give rise to a need to split the apportionment three ways to reflect the different nature of the three materials (sharp sand and gravel, soft sand and Upper Medway Sandstone gravels). Sandstone gravels of the Upper Medway Valley are generally of a secondary quality compared to sharp sand and gravels and are usually unsuitable for use in ready mixed concrete.

5.4.1 Several of the Upper Medway valley extraction sites are now either mothballed or closed, with only one site operational. The remaining operational site (at East Peckham) is able to blend the indigenous sandstone materials with crushed rock (which is imported to the site by train from the West Country). This means that this local material can be used as a constituent in concrete.

5.4.2 In view of the complexity that would be caused by maintaining a three way split, Option 4E is discounted. However, future proposals to continue working the Upper Medway Valley Sandstones will be considered as part of the Mineral Sites DPD.

5.4.3 The ratio of land won sharp sand and gravel: soft sand is likely to change over the plan period. This is because some of the traditional areas of gravel working in the County are being exhausted or reducing outputs considerably (such as the Stour Valley between Ashford and Canterbury and the Dungeness peninsula). Therefore the ratio between these two materials is likely to change during the plan period and soft sand is likely to become the predominant land won aggregate at some time during the plan period. In view of these factors, the preferred option is 4A, not to split the land-won aggregate landbank.

5.4.4 However, to ensure that flexibility in supply can be maintained there will need to be a stock of planning permissions (for the duration of the plan), for all three types of aggregate (sharp sand and gravel, soft sand and sandstone gravels) at suitable levels, so that, in combination they meet national policy requirements for sand and gravel landbanks.

5.5 Brickearth and Clay

Brickearth and Clay for Brick and Tile Works

Option 5

- **Option 5A** - A stock of planning permissions will be maintained at each operational and new brickworks and tileworks to meet national planning policy. This landbank requirement is to provide for 25 years of production at the individual works Communities and Local Government (November 2006). [30] Unlike construction aggregates, there are no national or regional forecasts or supply level requirements for brick and tilemaking facilities. Therefore past sales data is considered to be an indicator of future demand for brickearth and clay for brick and tile making in Kent. Sales data will be used to inform the calculations for the level of brickearth provision that needs to be made for the plan period.

- **Option 5B -** There is no merit in limiting reserves of Kent brickearth to supply plants in Kent alone. National minerals policy in MPS1 recognises the type of situation where scarce clays are used for a number of works, sometimes over long distances. The working and transportation of brickearth from Kent to the brickworks in East Sussex, is a small scale operation, which is carried out on an infrequent basis. Future supplies of brickearth, will be identified and allocated to supply works in Kent or those in neighbouring authorities that are reliant on brickearth supplies from Kent.

- **Option 5C** - Reserves of brickearth in Kent will only be identified if they supply brick making facilities in Kent.

5.5.1 There are no restrictions in terms of scarce minerals only being acceptable to provide resources to local plant in national minerals policy in MPS1, quite the contrary, this type of situation is recognised [31] Therefore a combination of Option 5A and 5B will be the 'preferred option' in relation to the supply of brickearth and clay for brick and tile works.

30 Minerals Policy Statement 1 Planning and Minerals Annex 2 Brick-clay

31 Communities and Local Government (November 2006) Mineral Policy Statement 1: Planning and Minerals Annex 2. Brick Clay Paragraph 3.2.

5.6 Mineral Importation Facilities (Wharves and Railheads)

Identification of Future Mineral Importation Facilities (Wharves and Railheads)

Option 6

Option 6A - Do not identify any future mineral importation facilities as Kent has sufficient wharves and railheads to allow for future expansion.

Option 6B - As there is a turnover of these facilities, new replacement sites will be required periodically and Core Strategy policy will recognise this. To encourage the development of new sites with good road and rail links and high environmental standards, new wharves and railheads will be actively encouraged, not necessarily to add to the number of sites or the total import capacity, but to progressively upgrade the environmental standards at these sites.

Option 6C - The Core Strategy will provide sufficient flexibility to allow for and encourage material to be brought into Kent by water and rail, through existing or new import points. The importation of non-aggregate materials into Kent is not so well understood and the sustainable transport of all minerals will be encouraged. Additional or replacement capacity will need to be well located, ideally with good access to rail and the strategic highway network and must meet high environmental standards of operation.

5.6.1 No new importation facilities have been submitted in response to the 'Call for Sites', but as the need to allow for flexibility during the plan period is recognised, Option 6C is therefore the preferred option.

5.7 Safeguarding of Wharves, Railheads & Other Mineral Infrastructure

Option 7

Option 7A - The identification and safeguarding of all existing, planned and potential railheads, wharfage and associated storage, handling and processing facilities for the bulk transport by rail or sea of minerals, including recycled, secondary and marine dredged aggregate materials will take place, to safeguard these sites from inappropriate development. Any application for the development of alternative uses on wharves or depot sites must demonstrate that there is no real prospect of a transport use continuing or being reintroduced on the site and there would be a need for the developer to demonstrate why safeguarding could be lifted without harm to Kent's mineral supplies;

Option 7B - In order to minimise the risk of incompatible developments adjacent to existing wharves and railheads, which in some circumstances could jeopardise the continued use of the mineral importation site, site specific Mineral Consultation Areas (buffer zones) will be established around all safeguarded wharves and railheads. Establishing Mineral Consultation Areas facilitates discussion between the Mineral Planning Authority and the District Council in two tier authorities.

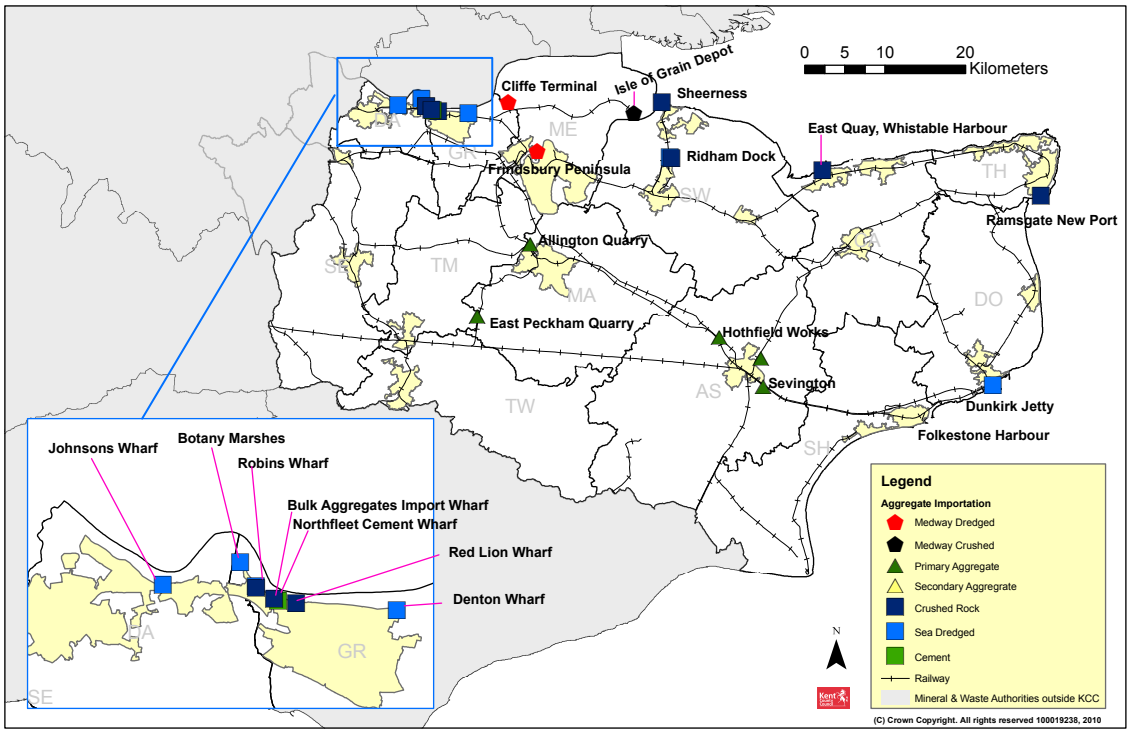
Option 7C - In order to minimise the risk of incompatible development adjacent or near to existing wharves and railheads, development adjacent to, or opposite a safeguarded wharf or railhead will need to demonstrate that acceptable levels of noise, dust, light and air emissions derived from the current or future wharf and railhead operations would be experienced at the new development. It will also be essential that vehicle access to the wharf or railhead is not detrimentally affected by the new development. Engagement with the importation site operators in the assessments and in identifying necessary mitigation will be actively encouraged.

5.7.1 There is a national requirement to include such a policy in the Core Strategy, and this has been tested in the Courts. [(32)]There is no real alternative solution for safeguarding these facilities. However, the issue of adjacent and nearby sensitive development has two potential solution options. The establishment of site specific Mineral Consultation Zones around wharves and railheads would be difficult to implement, due to wide scale variations in existing sites and existing adjacent developments, which are likely to change considerably over the plan period. However, Option 7C would be possible to implement and takes into consideration the variable nature of the importation sites and conflicting nearby developments.

5.7.2 Therefore a combination of Option 7A and 7C is the 'preferred option'.

32 Royal Courts of Justice Approved Judgement. Case No: CO/1116/2007 between Association of British Posts and (1) Hampshire County Council (2) New Forest National Parks Authority (3) Portsmouth City Council (5) Hampshire Minerals and Waste Authority. Hearing Dates 20-22 May 2008.

Figure 16: Existing Wharves and Rail Aggregate Depots



Existing Wharves and Rail Aggregate Depots

5.8 Safeguarding Land-Won Minerals

Safeguarding Land-Won Minerals

Option 8

Option 8A -There is no merit in attempting to safeguard ubiquitous, low value minerals such as chalk and clay across the county. However, Mineral Safeguarding Area (MSA) policies will however be applied to the scarce, high value minerals (including the Folkestone beds (building sand and silica sand), river terrace sand and gravel deposits, storm beach sand and gravel deposits, Hythe beds (ragstone and building stone) & brickearth. The difference between safeguarding policies and supply policies is that the former do not need to take into consideration any environmental constraints. Establishing MSAs on areas of proven resources does not imply extraction will necessarily ever take place. A mineral resource is defined as:-"a concentration or occurrence of material of intrinsic economic interest in or on the Earth's crust in such a form, quality and quantity that they are reasonable prospects for eventual economic extraction"[(33)]

33 British Geological Survey (2007) : A Guide to Mineral Safeguarding in England

5.8.1 The purpose of safeguarding is that in the event that it is necessary for non-mineral development to take place in the MSA, then the county and district planning authorities should work together to encourage the prior extraction of minerals where practicable.

5.8.2 There is no apparent realistic alternative approach to safeguarding land-won minerals in Kent, as this is a national policy requirement. MSAs will be included on the Core Strategy Key Proposals Map and in the Mineral Sites DPD.

5.9 Silica Sand

Option 9

Option 9A -To meet national landbank requirements for silica sand,[34] new sites or extensions to existing silica sand quarries will be identified and allocated, even if these need to be located in an Area of Outstanding National Beauty (AONB), where exceptional circumstances can be proved, subject to the highest standards of working, restoration and landscaping being implemented during the working phases.

Option 9B -Only identify silica sand sites that lie outside the AONB will be allocated, even if this means that no future silica sand sites are identified.

5.9.1 The preferred option is 9A, to identify the required areas for silica sand provision, avoiding the AONB if at all possible. Silica sand sites will only be identified in the AONB if suitable exceptional circumstances are proven at site allocation stage. If the only deliverable viable silica sand sites are within the AONB and exceptional circumstances can be shown, failing to identify them would contravene national minerals policy.

5.10 Preference for Extensions to Existing Sites versus New Sites

Extensions or New Sites?

34 Silica Sand is also known as 'industrial sand'. Whilst the quality of the silica sand deposits in Kent are not as pure as those found in neighbouring Surrey, some of this material is used for industrial processes including glass manufacture and the production of foundry castings. It is also used in horticulture and for sports surfaces including horse menages and golf course bunker sand. There are no sites in Kent which provide only silica sand, all sites produce construction aggregate to some extent.

Option 10

Option 10A -New areas of mineral working will be identified at or adjacent to existing sites wherever possible, giving a preference to extensions over new sites in most situations.

Option 10B -New areas of mineral working will be a mix of extensions to existing sites where environmental considerations are suitable, and new sites.

5.10.1 A preference for extensions may be seen as a competitive advantage for existing operators. At some new sites including capital intensive industries such as cement or brick manufacture, the factory is essentially fixed and local circumstances (geology and environmental considerations) dictate whether an existing quarry can be extended or a new stand-alone quarry be established. Therefore the preferred option for this issue is Option 10B, accepting that extending existing sites rather than develop new ones may give environmental benefits, but to include a mix of extensions and new sites in the overall balance of site allocations.

6 Kent's Options for Managing Waste

6.0.1 This stage in the plan making process requires a consideration of spatial and policy options, including options for locations of future minerals and waste developments. Options can only be considered in plan making if they are realistic, comply with national planning policy and are deliverable. Some subjects that are being considered as part of this plan making process do not have any realistic options. In order to give clarity regarding how the options have been derived, each waste subject is discussed prior to consideration of the possible options.

6.0.2 The choice of options, where indicated, has been made after consideration of the following:

- The Sustainability Appraisal commentary report[35] which reviews economic, social and environmental considerations;
- The deliverability of the options, including whether they can be realistically achieved at the required time; and
- The views of stakeholders in response to the Core Strategy 'Issues' consultation.

6.0.3 This section of the report therefore needs to consider options that were suggested by stakeholders in response to the Core Strategy 'Issues' consultation in 2010 as well as options that were discussed in that consultation. Planning Policy Statement 12 [36] requires the plan to contain policies and proposals which are the most appropriate when considered against reasonable alternatives. The following options may be considered:-

- growth options (how much development);
- spatial options (where);
- phasing options (when); and
- implementation options (by what means).

Alternative Options for the Location of Waste Development

6.0.4 PPS12 [37] advises that to reduce the need to frequently update core strategies, Local Planning Authorities (LPAs) should take a long term view and consider contingencies in order to provide flexibility.

Broad Principles for Waste Management in Kent

35 Scott Wilson (Prepared for Kent County Council) Sept 2010. Final Report, Minerals and Waste Core Strategy Issues Consultation Sustainability Appraisal Commentary.

36 Planning Policy Statement 12: Creating Strong Safe and Prosperous Communities Through Local Spatial Planning (para 4.38).

37 Communities and Local Government (2008). Planning Policy Statement 12: Creating Strong Safe and Prosperous Communities Through Local Spatial Planning (para 4.46)

- Moving waste up the waste heirarchy.[38] In June 2010, the Secretary of State for the Department of Environment, Food and Rural Affairs (DEFRA) announced that the government will be undertaking a full review of waste policy in England.[39] This review embraces a change to the waste hierarchy to one now showing Prevention, Preparing for Re-use, Recycling, Recovery and Disposal. The ambition is to work towards a zero waste economy. The term 'Zero waste' derives from the definition prepared by the Zero Waste Alliance in 2004;[40]

- Meet and exceed (wherever possible) the Landfill Directive targets for diverting biodegradable Municipal Solid Waste (MSW) away from landfill;

- Reduce the rate of growth of waste production;

- Meeting the Regional Spatial Strategy requirements for 'self sufficiency' as far as is reasonably possible, for all waste streams;

- Quantifying the amount of waste being generated in Kent and comparing these figures to existing capacity to establish the gaps in provision;

- Making provision for future needs for Kent's waste as well as a declining amount of future imports from London;

- Disposing to landfill reducing amounts of Commercial & Industrial (C&I) wastes;

- Utilising the un-recyclable fraction of Construction, Demolition and Excavation (CD&E) waste for quarry restoration;

- Being net self-sufficient in the treatment and disposal of the hazardous waste that arises in the County, whilst acknowledging that some hazardous waste streams have to travel considerable distances to a suitable treatment or disposal site; and

- Understanding the waste management implications and needs that are likely to arise from the decommissioning of the Dungeness nuclear power stations, and making provision locally, where practicable and possible.

38 The waste hierarchy introduced a sequential approach to waste management, including Reduce, Reuse, Recycle with Dispose at the bottom of the hierarchy.

39 DEFRA (June 2010) Review of Waste Policies Call for Evidence.

40 “Zero Waste" is a goal that is both pragmatic and visionary, to guide people to emulate sustainable natural cycles, where all discarded materials are resources for others to use. Zero Waste means designing and managing products and processes to reduce the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them. Implementing Zero Waste will eliminate all discharges to land, water or air that may be a threat to planetary, human, animal or plant health.” Zero Waste International Alliance – 2004.

6.1 Strategic Waste Sites

6.1.1 PPS12 allows strategic sites to be identified in the Core Strategy. Strategic Sites are those sites that are central to the achievement of the Strategy. Core Strategies should not be held up by the inclusion of non-strategic sites.

6.1.2 Stakeholders (from industry) gave suggestions regarding possibilities for Strategic Sites for waste to be considered for inclusion in the Core Strategy. These were as follows:-

Possible Options for Strategic Sites for Waste

Option 11

- **Option 11A** A site which can deal with contaminated soil, asbestos and incinerator ash. A site located in **Medway** was suggested for this. However, Kent County Council cannot identify Strategic Sites outside its county boundaries;
- **Option 11B** The site at **Richborough Power Station** will be able to accommodate large scale Mechanical Biological Treatment (MBT) plant which could receive household and non household waste for treatment by rail or water. Waste biomass fuel can also be delivered to a power/Combined Heat and Power (CHP) station from the site by rail or water;
- **Option 11C** The clay quarry and hazardous waste landfill site at **Norwood Farm, Sheppey.** This site is the final disposal point for the incinerator flue ash from Allington waste to energy plant. It's planning permission requires its restoration by 2016, and only ash from Allington is allowed to be accepted at present. The operators have promoted an extension to this site through the 'Call for Sites';
- **Option 11D** The existing Integrated Waste Management Centre at **Richborough Hall** and its proposed extensions. It currently offers facilities for the recycling of elements of C&I, CD&E waste streams and for the transfer of MSW waste streams in the East Kent area. The proposed extension (which is the subject of a current planning application) is for a new Material Recycling Facility on the Richborough Hall site and the transfer and expansion of the existing Inert Materials Processing facility on to a nearby new (brownfield) site, supplemented by the provision of an Anaerobic Digester Plant ; and
- **Option 11E** The existing, operation composting facility at **Blaise Farm (West Malling)**, which has capacity to treat up to 100,000tpa. The site has been promoted to the 'Call for Sites' for other waste management uses.

6.1.3 Both the vision and the objectives include the need to drive waste up the heirarchy, and to reduce the reliance on landfilling. The Waste Sites DPD will therefore need to make site allocations for waste to energy, composting, anaerobic digestion and other waste treatment technologies (for non-hazardous waste) to enable this to happen. Both combined heat and power (CHP) and Energy from Waste (EfW)[41] facilities give rise to air control residues (flue ash), which currently need landfilling at specialist sites. The only option from the above list which **may** be considered central to the delivery of the Core Strategy is the one which can deliver void space for incinerator flue ash from Allington Energy from Waste (EfW) plant post 2015 as well as accommodating flue ash from other CHP and EfW plants that become operational in the plan period. However, in order to drive waste up the heirarchy, it is not proposed to identify Norwood as a 'Strategic Site' until all alternative possibilities are explored.

6.1.4 It is understood that treatment technologies exist to treat the 'flue ash' so that it can be manufactured into secondary aggregate products. There have not been any proposals to do this submitted to the M&WDF 'Call for Sites'. Therefore whilst Option 11C is not proposed as a Strategic Site, if a suitable solution for the treatment of this 'flue ash' becomes apparent, it is likely that it will be supported as the Strategic Waste Site in the Core Strategy. The draft policy for the Strategic Waste Site is therefore written in the hope that an alternative long term solution to landfilling this hazardous flue ash comes forward in response to this consultation. The preferred option is therefore to try to identify through the M&WDF an alternative solution to the treatment of the hazardous flue ash arising from EfW and CHP plants.

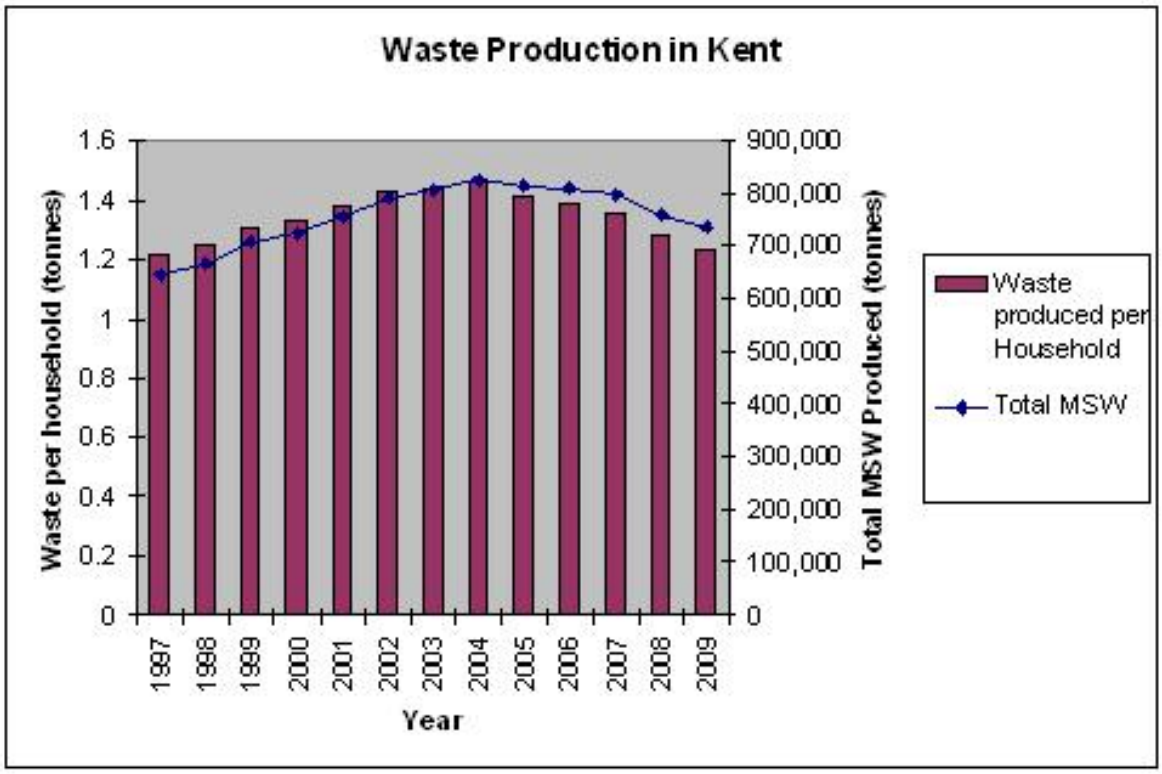
6.2 Municipal Solid Waste (MSW)

Forecasts of New Municipal Solid Waste Facilities Needed in Kent

6.2.1 The volume of MSW in Kent reached a peak in 2004 but has since declined by 8.7%, to 736,000 tonnes in 2009. Landfill has been the main means of disposal, but this declined from 79% of the total in 2002-03, to 32% in 2009. The decline in landfill was initially due to increased recycling, but has been accelerated by use of Allington energy from waste plant near Maidstone which took 29% of Kent MSW in 2009.

41 The EU Waste Framework Directive (Directive 2008/98/EC of the European Parliament and Council of 19 Nov 2008) considers CHP facilities and other operations which use waste principally as a fuel or other means to generate energy to be higher up the waste heirarchy than waste incineration. Incineration is classified as 'disposal' whereas gasification, pyrolysis and CHP is generally 'recovery'.

Figure 17: Municipal Solid Waste (MSW) Arisings in Kent



6.2.2 The Allington plant has capacity to incinerate 500,000 tonnes of waste per annum, producing up to 35 megawatts of electricity for the National Grid. Kent County Council has contracts to send at least 300,000 tonnes of MSW to Allington for incineration until 2026, and 25,000 tonnes of green and kitchen waste to the enclosed Composting plant at Blaise Farm, which has planning consent for 100,000 tonnes from Kent and neighbouring areas. The county council Waste Management Unit (WMU) anticipate that with some additional recycling and composting capacity landfill will take only 9% of Kent MSW in 2026/27.

Figure 18: Allington Energy from Waste Plant

6.2.3 Jacobs [42]forecasts of the additional MSW management capacity needed are based on the actual volume of 760,000 tonnes in 2008. This is less than the 800,000 tonnes estimated for the South East Plan, which does not anticipate the decline in the volume that has taken place in recent years.

6.2.4 A lower forecast of MSW growth was provided by the WMU[43] and reflects their view of continuing short term decline in arisings, followed by gradual longer term growth as household numbers increase. A higher growth rate was taken from the South East Plan, Policy W7.

6.2.5 This modelling work has now been updated to take into account the capacities of Kent's waste facilities for 2009/2010, as stated in the 2010 Annual Monitoring Report (AMR) [44], to extend the period to 2030, and to include the 2009/2010 MSW collection data.

Table 1 Higher and Lower Growth Rates for MSW

Source	2010	2015	2020	2025	2026
High Growth SE Plan - Policy W7	2.5%	2.0%	1.5%	1.5%	1.5%

42 Jacobs (May 2010) "Needs Assessment Modelling Technical Report"
43 Kent County Council Waste Management Unit (November 2009), updated March 2010.
44 Kent County Council (Dec 2010) Minerals and Waste Annual Monitoring Report For the Period 1st April 2009 to 31st March 2010

Low Growth KCC WMU (Nov.2009)	-3.00%	1.00%	1.75%	1.75%	2.00%

6.2.6 The forecast tonnages of MSW to 2030 are as follows:

Table 2 Projected Tonnages of MSW (rounded to 1,000 tonnes)

Waste Stream	Source	2010	2015	2020	2025	2030
MSW	SE Plan - Policy W7 (High Growth)	740,000	817,000	880,000	964,000	1,038,000
	KCC WMU – Oct. 2009 (Low Growth)	700,000	714,000	752,000	770,000	848,000

6.2.7 The majority of Kent MSW goes to waste facilities which hold waste management permits issued by the Environment Agency. However, some is sent direct to industrial sites, such as manufacturers of recycled paper, that are not permitted as waste facilities. The forecasts examine alternative waste management assumptions for the future:

- The first was based on South East Plan targets for higher diversion of waste from landfill and increased recycling and composting (Policies W5 and W6).
- The second was provided by Kent County Council WMU and reflects the current management of MSW in Kent.

Table 3 MSW Management Routes[45]

Source		2010	2015	2020	2025	2030
South East Plan (High Recycling)	Recycling/Composting	40%	50%	55%	60%	60%
	Other Recovery (excluding recycling/ composting)	12%	24%	28%	24%	24%
	Landfill	48%	26%	17%	16%	16%
KCC WMU (Low Recycling)	Recycling/ Composting	40%	45%	50%	50%	50%
	Other Recovery (excluding recycling/ composting)	42%	41%	41%	41%	41%
	Landfill	18%	14%	9%	9%	9%

45 Jacobs (May 2010) "Needs Assessment Modelling Technical Report."

The South East Plan envisaged that "other recovery", which is principally energy from waste, will account for only 24% of MSW by 2026, and that recycling/composting will rise to 60%. However, KCC WMU envisage more than 40% of Kent MSW being sent to Allington from 2010. 50% of Kent's MSW will be recycled or composted by 2026. Only 14% will need to be sent to landfill by 2015. Kent also has much more capacity for recycling than composting and the forecasts adjust this balance by sending waste to compost.[46]

Growth Forecasts for MSW 2010-2030 lie within the range of 218,000 tonnes (31%) to 282,000 tonnes (38%).

Provision for Municipal Solid Waste

Option 12

Option 12A High Growth Forecasts: Kent should identify sufficient sites to provide for the high growth figures for MSW in order to provide flexibility during the plan period

Option 12B Low Growth Forecasts (based upon Kent County Council's own Waste Management Unit's forecasts): Kent should identify sufficient sites to provide for the low growth figure for MSW.

6.2.8 Kent County Council has long term waste management contracts in place for the management of its MSW which include contingency measures for the management of MSW should there be unanticipated increases in the generation of MSW in the county. In addition the MSW waste figures for Kent have shown a steady decline in the amount of MSW being generated. It would therefore be more realistic to use the Lower Growth Forecasts for MSW. However as MSW is often managed at the same facilities as Commercial and Industrial Waste (C&I), flexibility will be built into the provision of facility for these two waste streams together. A summary of the contractual arrangements for MSW in Kent is given in The Municipal Waste Evidence Base Topic Paper. [47] Therefore Option 12B is the preferred option for MSW. Whilst the preferred option for calculating growth rates in MSW differs from the growth rates in the South East Plan, the evidence base given in the Evidence Base Topic Paper shows that the volume of MSW in Kent reached a peak in 2004 but has since declined by 8.7% to 736,000 tonnes in 2009.

New Capacity Needed for MSW Alone

6.2.9 The Jacobs forecasts show that between 47,000 tonnes and 183,000 tonnes of additional composting capacity will be needed in Kent by 2026. There should also be provision made for a new transfer station at Ashford in the Waste Sites Development Plan Document.

46 Jacobs (May 2010) "Needs Assessment Modelling Technical Report" Table 3G
47 Kent County Council (2011). Municipal Waste Topic Paper TRW1.

Additional Composting and Recycling Capacity Required for MSW

Option 13

- **Option 13A** - Low level forecasts: Kent should make provision for the low level forecasts for composting capacity requirement, i.e. 47,000 tonnes. This would need, for example a single In-Vessel Composting Plant (IVC) for this forecast.
- **Option 13B -** High Level Forecasts: Kent should make provision for the high level forecast for composting MSW, ie 183,000 tonnes. This would require identifying sites for two large IVC plants such as that at Blaise Farm or four smaller IVC, or a mix of these facilities.

6.2.10 As the Allington EfW plant will take 40% of Kent's MSW throughout the plan period, it is unlikely that the higher end of the composting range will be needed. Therefore Option 13A is the preferred option, the plan must make provision for additional capacity for small volumes of composting of MSW (47,000 tonnes). The composting needs for C&I wastes will also need to be addressed in conjunction with those for MSW. This is considered in Section 6.3.

6.3 Commercial and Industrial Waste (C&I)

New Capacity Needed for C&I Wastes

The Volume and Management of C&I waste

6.3.1 There is little reliable data about C&I waste and the MWDF must rely on estimates. C&I waste is more varied than MSW, and includes chemical, metallic and mineral wastes, which require different treatment or disposal. Mixed and non-metallic wastes have most in common with MSW, and account for 55% of the total. They include paper, plastics and biodegradable matter:

Table 4 Estimates of Kent C&I Waste Types. 2008 ADAS model output for Kent waste provided by East of England RTAB (April 2010).

	Animal & vegetable waste	Chemical wastes	Common sludges	Discarded equipment	Health care	Metallic wastes	Mineral wastes	Mixed wastes	Non metallic wastes	Total
Tonnes	72,700	254,500	281,300	10,900	15,300	55,500	143,800	534,100	333,800	1,701,800
%	*4.3*	*15.0*	*16.5*	*0.6*	*0.9*	*3.3*	*8.4*	*31.4*	*19.6*	*100.0*

6.3.2 The lack of an up to date measure of the volume of Kent C&I waste adds to the uncertainty about the new capacity to be provided by the MWDF:

- An Environment Agency survey of 2002/03 has a value for Kent of 1,713,000 tonnes which was the basis of the South East Plan.

- Cambridge Econometrics [48] have estimated a lower value for Kent of 1,206,000 tonnes in 2006, but also suggest there was little change since 2002/03.

- An estimate can be made of 917,000 tonnes of Kent C&I waste sent to permitted/licensed facilities only in 2008.[49] However, because of the downturn in industrial and commercial activity in 2008 this value may not be representative of the arisings for which the MWDF should make provision.

- A 2009 Defra national survey for C&I wastes shows that the arisings in the South East of England have decreased by 29% since the 2002/3 survey [50].

6.3.3 The forecasts for the Kent MWDF use the estimate of 1,206,000 tonnes in 2006, but on a provisional basis because it may be an underestimate.

6.3.4 The C&I Topic Report suggests that if only 917,000 tonnes of C&I waste were sent to licensed facilities in 2008, then at least 300,000 tonnes were sent to recycling and recovery facilities that do not need a waste management licence. This capacity would be in addition to the tonnages given in Table 6 and suggests there is already more than sufficient capacity to divert 86% of C&I waste from landfill, as required by the South East Plan.[51]

6.3.5 The new survey of C&I waste arisings commissioned by DEFRA, published at the end of 2010 found that:-

- Total C&I waste generation in England, in 2009, is estimated to be 48.0 million tonnes. This is a decrease of 29 per cent from 67.9 million tonnes since the last national survey of business waste in 2002/3.

- The industrial sector accounts for 24.2 million tonnes and the commercial sector 23.8 million tonnes.

- Industrial wastes have declined by 13.4 million tonnes, or 36 per cent, since 2002/3 and commercial waste has declined by 6.5 million tonnes, or 21 per cent, in the same period.

48 Cambridge Econometrics Comparison of Waste Data and Projections for Kent. A report for Kent County Council. 01 April 2010

49 EA Waste Interrogator 2008. Factored to 100% from a value of 642,000 tonnes from a 70% sample.

50 Defra (December 2010).Survey of Commercial and Industrial Waste Arisings 2010. Final Results.

51 KCC “C&I Waste Topic Report”, para. 4.4.3 & 4.5.3

- A total of 25.0 million tonnes, or 52 per cent, of C&I waste was recycled or reused in England in 2009, compared to 42 per cent in 2002/3. A total of 11.3 million tonnes, or 23 per cent, of C&I waste was sent to landfill in 2009, compared to 41 per cent in 2002/3.

- Small enterprises, with between 0 and 49 employees, produced 16.6 million tonnes of C&I waste in England, in 2009, or 35 per cent of total C&I waste.

Forecasts of New C&I Waste Capacity Needed

6.3.6 The forecasts for the Kent MWDF take the South East Plan growth rate as the higher level of the range for C&I waste, and zero growth as the lower level. Zero growth would represent future success in the reduction of waste – "decoupling" waste from economic growth. The Defra 2010 report indicates that nationally C&I waste arisings are decreasing considerably.

Table 5 Higher and Lower Growth Rates for C&I Waste

Source	2010	2015	2020	2025	2030
SE Plan - Policy W7	2.5%	2.0%	1.5%	1.0%	1.0%
KCC Assumed	0	0	0	0	0

6.3.7 The tonnages of C&I waste forecast to 2030 are as follows:

Table 6 Projected Tonnages of C&I waste (rounded to 1,000 tonnes) (hazardous waste from within C&I waste has been removed from these figures)

Waste Stream	Source	2010	2015	2020	2025	2030
C&I	SE Plan - Policy W7 (High Growth)	1,261,000	1,392,000	1,500,000	1,576,000	1,657,000
	KCC Assumed (Low Growth)	1,139,000	1,139,000	1,139,000	1,139,000	1,139,000

6.3.8 In view of the lack of analysed data on the management of C&I waste, the forecasts examine only the South East Plan targets for the future management of C&I waste, as follows:

Table 7 South East Plan C&I Waste Management Routes

	SE in 2009 C&I Survey[1]	2010	2015	2020	2025	2030
Recycling/Composting	49%	50%	50%	60%	65%	65%
Other Recovery (excl. recycling/ composting)	15%	15%	20%	21%	19%	19%
Landfill	20%	35%	30%	19%	16%	16%

Footnote 1 for Table 7 : The data in this column is taken from the results from a Commercial and Industrial Waste Survey carried out in 2009, (Defra December 2010). This also shows that 16% of C&I waste in the South East went to reuse or transfer where the final destination is unknown.

6.3.9 However, these are regional targets that may not be appropriate to individual Waste Planning Authorities because local management will reflect the availability of particular capacity. For example the South East Plan assumes that by 2025 the proportion of C&I waste sent to "other recovery", which includes energy from waste, increases from 15% to 20%. This is a relatively small change, and does not reflect the potential situation in Kent.

New Capacity Needed for C&I Waste

6.3.10 The forecasts conclude that to meet the targets of the South East Plan for C&I waste alone, between 32,000 tonnes and 311,000 tonnes of additional recycling capacity will be needed in Kent by 2026.

6.3.11 Because the recycling, composting and energy recovery of MSW and C&I may take place in the same facilities, the forecast need for new capacity for both waste streams in combination is considered.

Providing Long Term Flexibility for Recycling and Composting

6.3.12 The C&I Waste Topic Report[(52)] suggests that because a large amount of C&I waste is sent direct to unlicensed facilities, such as industrial processes that recycle waste, the waste industry is unlikely to invest in new, large scale recycling capacity. Instead, it is likely that Kent will require additional composting capacity for about 250,000 tonnes of C&I waste per annum because of increasing landfill tax and

52 Kent County Council (September 2010) Waste Topic Report 2: Commercial & Industrial Waste (C&I). Available from: http://www.kent.gov.uk/environment_and_planning/planning_in_kent/minerals_and_waste/evidence_base/issues_consultation.aspx

a shift away from landfilling biodegradable waste. This will be in addition to the need for more capacity to compost MSW (estimated at 47,000 tonnes per annum, see Option 13). New facilities would probably be used for both waste streams.

6.3.13 The MWDF will need to indicate the number and locations of such facilities. Given the existing spatial distribution of waste management facilities for MSW and C&I wastes, East Kent is the preferred location for new capacity for MSW.

6.3.14 Very little incineration of Kent C&I waste occurs at present but the increasing cost of landfill, the possible ban on the landfill of some wastes, and eventually the closure of existing landfill sites, will create demand for alternative solutions for C&I waste.

Recycling/Composting Capacity for C&I Wastes

Option 14

Recycling/Composting Capacity for C&I Wastes

- **Option 14A - Low Forecast** Provide recycling or composting capacity to treat the gap in provision arising from the low forecast figure of 32,000 tonnes per annum (tpa);
- **Option 14B - High Forecast** Provide recycling or composting capacity to treat the gap in provision arising from the high forecast figure of 311,000 tpa;

6.3.15 In order to provide the required degree of flexibility for the plan, the preferred option is to identify sites to provide recycling or composting capacity for the high forecast figure, ie 311,000 tonnes. Combining this figure with the low forecast for MSW recycling/composting requirements gives a total amount required of 358,000tpa.

6.3.16 However, new data has been utilised to recalculate the forecasts and this total figure for both MSW and C&I waste has been reduced to 260,000tpa (see Policy CSW7 and the Municipal Waste Topic Paper for up to date calculations). At least one of the new facilities needed for managing these wastes should be in East Kent in view of the lack of facilities there.

6.3.17 The Waste Sites DPD will make provision for the gap in C&I and MSW waste arisings by identifying sufficient sites to recycle or compost the revised high forecast amounts -now considered to be at least 260,000tpa of MSW and C&I wastes. At least one of the new facilities identified should be in East Kent in view of the lack of facilities there.

6.3.18 The total figure given for additional capacity required for recycling and composting will be dis-aggregated in the Pre-Submission edition of the Core Strategy.

6.4 Landfill

The Need for Additional Non Hazardous Landfill

6.4.1 It is European and national policy to reduce the amount of waste sent to landfill. However, some MSW and C&I waste will continue to be sent to landfill because it is not suitable for other treatment processes.

6.4.2 In 2008 two non-hazardous landfill sites in Kent, Shelford in Canterbury and Greatness in Sevenoaks, had permitted space for a further 5.3 million tonnes of MSW or C&I waste. There are no planning restrictions on where this waste may come from. The Jacobs report [(53)] concludes that the forecasts for the landfill void space that will be required in addition to this reserve by 2026 are for space to accommodate between 7.1 and 14.6 million tonnes of Kent MSW and C&I waste.

Figure 19: Shelford Landfill

53 Jacobs (May 2010). Waste Management Statistical Basis for the Emerging Kent County Council Minerals and Waste Development Framework Needs Assessment Modelling Technical Report.

6.4.3 The higher forecast used the South East Plan target to reduce the proportion of MSW sent to landfill from 56% in 2008 to 16% by 2025. However, this takes no account of the waste treatment capacity that is in place in Kent. Nor does it reflect the views of Kent County Council's Waste Management Unit (WMU) which believes that MSW sent to landfill will fall to 9% by 2026.

6.4.4 More recent forecasts **(54)** estimate that the remaining landfill void space in Kent will run out some time between 2015 and post 2030, depending upon the growth forecasts used. Assuming that Kent County Council grants planning permission for EfW (recovery) facilities to deliver 400,000 tpa of capacity in the following timescales:-

- New EfW for 100,000 tpa C&I waste in 2013;
- New EfW for 200,000tpa C&I waste in 2015; and
- New EfW for 100,000tpa C&I waste in 2017, using the low growth rates for C&I waste of 0% per year and the low growth rates for MSW would mean that 1.2 million cubic metres of non-hazardous landfill void space will remain in 2030.

6.4.5 Using the high growth forecasts for both MSW and C&I wastes, (which is considered to be very unlikely to happen), if additional EfW (recovery) facilities are granted planning permission to deliver 700,000tpa of capacity in the following timescales:-

- New EfW for 100,000 tpa C&I waste in 2013;
- New EfW for 300,000tpa C&I waste in 2015;
- New EfW for 100,000tpa C&I waste in 2018;
- New EfW for 100,000tpa C&I waste in 2022; and
- New EfW for 100,000tpa C&I waste in 2027, 200,000t of non-hazardous landfill void space will remain at the end of the plan period in 2030.

Waste from London

6.4.6 South East Plan Policy W3 states that Waste Planning Authorities (WPAs) should provide landfill capacity for proportions of London's MSW and C&I waste. However, Kent has handled less than 20,000 tonnes of London MSW and C&I waste in recent years, this being the amount that is sent from London to Greatness landfill (Sevenoaks). It is unlikely that there would be an increase to the 158,000 tonnes per annum envisaged by the South East Plan Policy W3 in the period to 2015.

6.4.7 However, it is possible that when landfill sites to the east of London close towards the end of the plan period, there will be market pressure for increased volumes of London waste to be sent to Kent. One outcome is that Kent could maintain approximately 20,000 tonnes per annum to 2017, but receive an increased amount (say 80,000 tonnes[55]) after that date. After the closure of Greatness (also anticipated around 2017 or before), it is considered very unlikely that London's C&I waste would travel to the only remaining operational non-hazardous waste landfill at Shelford (on the the east side of Canterbury) for disposal. This is because there will remain other operational landfill sites in Thurrock and south Essex, which are closer to the waste source. Instead, if this waste from London does need to be handled in Kent, it is more realistic to include these tonnages in the total amount of C&I waste that is to be provided for by new EfW facilities.

6.4.8 The C&I waste stream together with residual waste from MSW are mainly responsible for the forecast need for additional non hazardous landfill. The need for additional non-hazardous landfill for both Kent waste and that arising in London which may be sent to Kent for final disposal or treatment could be reduced by more provision for recovery of CHP from C&I waste.

Additional Landfill Space for Kent's Non Hazardous Wastes

Option 15

Option 15A In order to reduce the amount of C&I waste being sent to landfill (in 2008, 462,000 tonnes of Kent's C&I waste was sent to non-hazardous landfill), the M&WDF will provide site allocations for substantial additional capacity for EfW (and/or other waste technology treatments including anaerobic digestion, pyrolysis), for Kent's C&I waste.

Option 15B In order to make provision for the current C&I waste stream that is being sent to landfill, Kent will identify new landfill sites for this amount of waste estimated to be generated for the duration of the plan. However it is difficult to identify a suitable site for non-hazardous waste disposal in Kent, due to geological and environmental considerations that have to be taken into account.

Option 15C No new landfill void space for non-hazardous waste will be identified in Kent for the plan period. This is because there are major consented and operational landfills for MSW and C&I wastes in Thurrock, London Borough of Havering and South Essex. The operators of these landfills are experiencing reducing volumes of waste being sent to their sites for disposal by landfill. It is likely that sufficient void space will be available for Kent's C&I waste stream for the duration of the plan.

55 This is the average amount of London waste per year that Kent is required to landfill post 2015(as required in the South East Plan)

6.4.9 The preferred option is a combination of Option 15A and 15C. The need to identify land for possible use for non-hazardous waste landfill in Kent would appear to be unjustified and unrealistic. This is due to the following reasons:-

- There are large consented landfills with ample void space to accommodate the amounts of waste that Kent may need to send to non-hazardous waste landfills for the duration of the plan period in close proximity to the Kent part of the Thames Gateway Growth Area; and
- New forecasts based on up to date information indicate that if Kent County Council grants planning permissions for between 400,000 - 700,000tpa of EfW capacity during the plan period, existing non-hazardous landfill void space will be sufficient for all of Kent's needs until at least the end of the plan period. This levels of EfW capacity is deliverable within the plan period.

6.4.10 Therefore, it is not proposed to identify any new non-hazardous landfill sites for Kent. Instead the M&WDF policies will encourage the driving of C&I waste up the waste heirarchy, identifying sites for the treatment of C&I wastes, including new capacity for EfW plants. However this will result in the need to make provision for the (smaller) volumes of resulting hazardous flue ashes rather than large volumes of untreated C&I waste going to landfill.

6.5 Construction, Demolition and Excavation Wastes (CDE)

The Volume and Management of Construction, Demolition and Excavation Wastes (CDE Wastes)

6.5.1 The 2005 National survey of CDE waste arisings [(56)] gave an estimate of Kent inert waste. This information was used in the South East Plan and the forecasts for the MWDF. The survey data from that report is as follows:

Table 8 Management of Kent CDE Waste Inert Waste: 2005

Management Routes	Tonnes	%
Recycled	1,481,555	54.8%
Landfilled*	927,721	34.3%
Environment Agency Exempt uses e.g. landscaping	292,001	10.9%
Total	**2,701,277**	**100%**
**Landfilled consists of:*		
Engineering at non-hazardous landfill sites	*264,787*	*9.8%*

56 Capita Symonds Ltd (2005) Survey of Arisings & Use of Alternatives to Primary Aggregates in England.

Disposal	*662,933*	*24.5%*

Note: Excludes materials such as wood, metals and plastics etc which are included within C&I waste. Hazardous construction waste is included with other hazardous wastes later in this document.

6.5.2 The forecasts of CDE waste for the Kent MWDF adopt the assumption of the South East Plan that waste volumes are relatively stable and will not change. This does not take account of the decline in construction activity in 2009 and 2010, but does decouple CDE waste from longer term growth of the economy.

6.5.3 The forecasts also adopt South East Plan management targets for CDE waste as follows:

Table 9 South East Plan CDE Waste Management Routes

	2008	2011	2016	2021	2026
Recycling (Policy W6)	48%	50%	52%	60%	60%
Re-use (of which 61% used at exempt sites, and 39% at landfills)	34%	34%	34%	28%	30%
Landfill (Policy W5)	18%	16%	14%	12%	10%

6.5.4 In 2005 Kent recycled 55% of CDE inert waste, which exceeded the South East Plan assumption of 48%, and also disposed of more inert waste to landfill (25% compared to 18%). These levels may reflect the availability of more CDE recycling and inert landfill capacity in Kent than in other areas of the South East.

6.5.5 The remaining CDE waste has been used for landscaping and noise bunds on development sites, which have been exempt from waste permitting, or at landfill sites to cover deposited material. The MWDF need make no provision for such re-use because it is permitted as part of other development or landfill operations. The South East Plan set a regional average of 34% for such use, but the 2005 data suggests that it was much lower in Kent, at about 21%. Applying the South East Plan values to Kent may therefore remove too much waste from the forecast need for recycling and landfill capacity.

6.5.6 The South East Plan target was to increase recycling to 60% by 2025, but this is only 5% above the estimated rate in Kent in 2005. The Plan also aimed to reduce landfill from 18% to 10%, which is a more gradual decline than the voluntary initiative[57] to reduce the amount of CDE sent to landfill by 50% in 2012. However,

57 "Construction Commitments: Halving Waste to Landfill."

in Kent it is a large reduction from the 25% of CDE landfilled in 2005. South East Plan waste management targets for CDE waste do not appear to be well suited to the situation in Kent.

6.5.7 A single forecast of the need for CDE recycling capacity has been made for the MWDF, which increases the quantity of waste from 1,248,000 tonnes in 2008 to 1,560,000 tonnes in 2026 (+312,000 tonnes or 25%):

Table 10 CDE Waste for Recycling 2008-26

	2008	2011	2016	2021	2026
CD&E	1,248,000	1,300,000	1,352,000	1,560,000	1,560,000

Source: Jacobs Table 4-A

6.5.8 The current maximum permitted recycling capacity in Kent is assessed at 2,128,000 tonnes per annum, excluding mobile crushers. On the basis of the forecasts alone there is no need for the MWDF to provide additional recycling capacity to meet South East Plan targets. However, a number of the existing facilities are located at quarries and temporary waste management facilities, which will not be available for the life of the MWDF.

6.5.9 Kent has only one permanent CDE recycling facility site which incorporates a washing process and this may mean that the maximum capacity of facilities in Kent could not in practice be achieved. The MWDF should therefore make provision for a network of sites across the county accordingly.

Capacity Needed for Inert Landfill

6.5.10 The forecast of waste sent to inert landfill falls steadily from 463,000 tonnes in 2008, to 260,000 tonnes by 2026. The current capacity of inert landfill sites in Kent could accommodate 24,352,000 tonnes, and the forecast therefore suggests there is no need for the MWDF to provide additional inert landfill capacity. However, there are other considerations that qualify this conclusion.

6.5.11 The South East Plan assumed that the share of CDE inert waste sent to landfill falls from 18% to 10%, but this understates the share sent to landfill in Kent, which in 2005 was 24% (663,000 tonnes). Although CDE waste is costly to transport, Kent is near to London where there are limited opportunities for disposal. The quantity of London's CDE waste sent to Kent and Medway has increased in recent years, to 521,000 tonnes in 2008.

6.5.12 Kent's inert landfill and recycling sites have no planning restriction on the origin of waste. Kent currently has over 26 million tonnes of consented and permitted inert landfill capacity and needs only 6.7 million tonnes for the entire plan period. Therefore, there is sufficient inert void space should CDE waste from London continue to be brought to Kent.

6.5.13 Approximately three quarters of the inert landfill capacity in Kent is located in Tonbridge & Malling Borough, which although accessible to Mid and West Kent is some distance from much of East Kent.

6.5.14 The “re-use” of CDE waste has involved its use in development sites which are exempt from waste management permitting. The South East Plan forecasts assumed that the “re-use” of CDE waste on exempt sites falls from 34% to 30% but is only 21% in Kent and might not decline further. The capacity of “exempt sites” is not known and no provision for them can be made in the MWDF, as they are not 'county matter' developments. However the Environment Agency changed the way that they deal with these exempt sites in 2010, meaning that many facilities that would have previously been able to obtain an exemption from permitting now fall within the permitting regime. The percentage of the CDE waste stream going to exempt sites is therefore likely to drop further.

6.6 Hazardous Waste

Making Provision for Hazardous Waste

6.6.1 The South East Plan does not require Waste Planning Authorities (WPAs) to provide for the amount of hazardous waste that arises in their area, but stated that provision will be required for a small number of large-scale specialist facilities. Policy 15 states that priorities include hazardous landfill capacity to serve the south and east of the region, treatment facilities for air control residues (flue ash), treatment of waste electronic and electrical equipment (WEEE) and a network for treatment of contaminated construction and demolition waste.

6.6.2 The South East Plan encouraged waste development plan documents to identity and safeguard sites for contaminated construction soils and demolition waste, and to identify criteria for large scale hazardous waste facilities, which should be located and designed to make use of rail or water transport. Where necessary, development plan documents should encourage the creation of protective cells for hazardous waste at landfill sites.

6.6.3 A report produced by Scott Wilson for SEERA[58] reviewed hazardous waste arisings in the South East and forecast future management requirements for the types and quantities of waste arising in the region. Most hazardous waste is produced by industry and Scott Wilson assumed hazardous waste would grow at the rates for C&I waste in the South East Plan (Policy W7) and the National Waste Strategy 2007, which are very similar.

6.6.4 The Scott Wilson report states that complete self-sufficiency at a regional level is not practical for hazardous waste because cross-border movement is substantial in terms of the amount of waste and the distances travelled to infrastructure

58 Scott Wilson (April 2009) Study into the Arisings & Management of Hazardous Waste in the South East Region.

elsewhere in England and Wales. The report identifies likely additional hazardous landfill locations as restricted to the counties of Buckinghamshire, Oxfordshire and Kent within areas which have suitable geology.

6.6.5 Whilst complete self sufficiency for hazardous waste is not practical, 'net-self sufficiency' is.Net self sufficiency mean that Kent would make provision for an amount of hazardous waste equivalent to the amount generated within the County.

Existing Situation Regarding Hazardous Waste in Kent

6.6.6 Kent has existing or planned provision for facilities that contribute to providing for each of the regional priorities, and can make a substantial contribution to providing for its own hazardous waste and the regional networks.

6.6.7 Hazardous waste is carefully regulated and data held by the Environment Agency provides a reliable measure of the amount produced in Kent and its destination. It is varied in nature and requires specialised treatment and disposal. Consequently there is considerable movement of hazardous waste across Waste Planning Authority boundaries, and this is illustrated by the table below for 2008 data:

Table 11 Hazardous Waste Flows: Kent 2008 (rounded to the nearest 1000)

	Tonnage
Hazardous waste arising in Kent	125,000
Hazardous waste imported to Kent	92,000
Hazardous waste exported from Kent	97,000
Hazardous waste managed in Kent	120,000

6.6.8 In 2008 Kent produced 125,000 tonnes of hazardous waste, but of this 97,000 tonnes (78%) left the county, and 92,000 entered Kent for treatment and disposal. Currently therefore Kent can be considered to be net-self sufficient in the provision of management facilities for hazardous wastes. Consequently only a small proportion of the 120,000 tonnes of hazardous waste managed in Kent originated in the county, with the bulk of this being landfilled. It is important for the Kent M&WDF to continue this self-sufficiency in the management of hazardous wastes throughout the plan period.

6.6.9 Consequently only a small proportion of the 120,000 tonnes of hazardous waste managed in Kent originated in the county, with the bulk of this being landfilled. The two hazardous waste landfill sites in Kent are Pinden Quarry (near Dartford) which accepts asbestos from a wide catchment, and Norwood Landfill on Sheppey which accepts flue ash from Allington.

Growth in Hazardous Waste and its Management

6.6.10 The South East Plan noted that there will be an increase in residues from waste treatment such as energy from waste (para. 10.49), some of which will require disposal as hazardous waste. Jacobs have made forecasts of hazardous residues in Kent on the basis of alternative technologies for the treatment of MSW and C&I waste. From 2008 to 2026 between 400,000 and 1,600,000 tonnes of flue ash could require hazardous landfill. The higher amount would be produced by the combination of high growth rates and the use of Allington and similar EfW plant.

6.6.11 It is evident that self sufficiency is not practical for hazardous wastes, and that movement of hazardous waste to and from Kent will continue. However residues produced by the Allington plant are primarily from Kent's MSW for which the MWDF should make provision. In addition, it is likely that new waste to energy plant will be consented and become operational in the plan period, therefore provision for their treatment or disposal must be made in the plan period.

Landfill for Incinerator Flue Ash in Kent

6.6.12 The MWDF must assess the permitted capacity of the existing hazardous landfill for incinerator ash in Kent, and the implications of increased production of such residues in Kent. Norwood Farm on the Isle of Sheppey was granted planning permission in 2005 to accept the hazardous ash from Allington, which produces about 45,000 tonnes of this waste material each year. The heavier bottom ash is not hazardous and is reused.

6.6.13 Norwood Farm is a source of clay used for engineering purposes. One of the conditions of the planning permission to accept Allington's flue ash[(59)] is that the site must be restored by 2016, and therefore provision must be made for the treatment or disposal of Allington's ash after that date.

Landfill for Asbestos Waste

6.6.14 The other hazardous waste landfill in Kent is Pinden Quarry (south of Dartford) which is a chalk quarry with permission for disposal of asbestos wastes. It is the only site in the South East for disposal of asbestos and therefore most of the waste comes from outside Kent.

6.6.15 The volume of asbestos for landfill depends largely on the amount found in the demolition and refurbishment of older buildings and plant, and should decline in the longer term because it is no longer used as a building and insulating material.

6.6.16 The Pinden site has planning permission for 837,300 cubic meters of landfill after the extraction of chalk, with a condition which requires its restoration by 2042. However, at recent rates of fill the permitted landfill is likely to be complete within 10 to 15 years.

59 Flue ash is the solid material remaining in the chimney as part of the air pollution control requirements.

6.6.17 The nearest available alternative asbestos landfills are in Chelmsford, North Hertfordshire, Suffolk, the Isle of Wight and Oxfordshire.

Contaminated Soil

6.6.18 The South East Plan and the Scott Wilson report identify the need for the storage, treatment and remediation of contaminated soils and demolition waste, and the current priorities of SERTAB[60] include specialist treatment for contaminated soils.

6.6.19 Due to the cost of transporting contaminated soils, current practice is often for soil remediation to occur at the site being developed. For example, planning permission has been granted in 2010 at Nicholls Quarry, Hythe (near Folkestone) for the treatment of 1 million tonnes of soil and waste, and its use for restoration of the site prior to residential development.

6.6.20 The Environment Agency 2010 report on Construction, Demolition and Excavation Waste in the Thames Gateway [61] suggests that disposal capacity for 510,000m3 of hazardous waste will be required from the Kent part of the Thames Gateway development.

Clinical Waste

6.6.21 The clinical incinerator located at Ashford is the largest of only three in the South East. Even so there is a substantial amount of health care waste which is imported to and from Kent indicating the specialist nature of clinical wastes.

Waste Electronic and Electrical Equipment (WEEE)

6.6.22 There are a number of sites in Kent for the treatment and transfer of waste electronic and electrical equipment (WEEE). Future needs for these facilities may be capable of being located on established on suitable industrial sites.

End of Life Vehicles

6.6.23 Kent has many sites that handle End of Life Vehicles (ELV), and although there appears to be no shortage of capacity there may be economic pressures within the industry for larger sites that can provide a range of equipment and greater scope for recycling. Future needs for these facilities may be capable of being established on suitable industrial sites.

6.7 Nuclear Waste

Making Provision for Nuclear Waste

60 South East Regional Advisory Body for Waste.

61 Environment Agency (2010). Waste From Regeneration. Construction, demolition and excavation waste in the Thames Gateway.

6.7.1 Radioactive waste is not a controlled waste as it is not covered by the Waste Framework Directive. None of the provisions of the Waste Strategy 2007 relate specifically to nuclear waste but the principle of the waste management hierarchy is pertinent to the management of nuclear waste.

6.7.2 There are three broad categories of radioactive waste reflecting the degree of radioactivity and hazard:

- High Level Waste (HLW) is largely a by-product from reprocessing of spent fuel, which takes place at Sellafield in Cumbria.
- Intermediate Level Waste (ILW) is waste with radioactivity levels exceeding the upper boundaries for low level wastes, but which does not require heating to be taken into account in the design of storage or disposal facilities.
- Low Level Waste (LLW) which unlike HLW and ILW, does not normally require shielding during handling or transport. It consists largely of paper, plastics and scrap metal items that have been used in hospitals, research establishments and the nuclear industry. In future there will be large volumes of soil, concrete and steel as nuclear plants are decommissioned.

6.7.3 Kent has two nuclear power stations (Dungeness A and B) located on Romney Marsh within an environmentally sensitive area, adjacent to sites designated for their national and international environmental importance.[62] The area is vulnerable to coastal erosion, and the shingle tidal flood defences are continuously replenished to protect the nuclear site.

6.7.4 Dungeness B remains operational but its decommissioning is anticipated to commence in 2018. [63]Dungeness A is owned by the Nuclear Decommissioning Authority (NDA), and there are four phases of decommissioning:

- Defuelling - until about 2011.
- Care and Maintenance Preparations – lasting approximately 15 years, in parallel with defueling. It includes construction of an Intermediate Level Waste Store.
- Care and Maintenance – approximately 80 years. This may include transportation of all ILW from Dungeness to a new permanent storage facility to serve the UK, envisaged around 2040.
- Final Site Clearance – approximately 9 years from about 2102 and including provision of an ILW waste management facility on the site to process all waste arising from this phase.

62 Dungeness Special Area of Conservation.
63 http://www.british-energy.com/pagetemplate.php?pid=91

6.7.5 In total over the three phrases, decommissioning of Dungeness A is likely to produce 140,000 tonnes of waste of which 4,400 will be ILW and 28,500 LLW with most of the remainder being inert waste. The defuelling and care and maintenance preparation stages for Dungeness A are likely to take place within the horizon of the MWDF (2030), and to be partly completed for Dungeness B.

6.7.6 Proposals for waste management uses at Dungeness that need planning permission would need to take into account the sensitive environment of the site, the coastal process and flood risk. Rigorous tests would apply (Appropriate Assessment) to proposals with any potential for adverse impact on the internationally designated sites.

Management of Dungeness High Level Waste (HLW)

6.7.7 Government policy on high level and intermediate level nuclear waste is to provide for their permanent disposal at a Geological Disposal Facility. This will be a secure, national repository in suitable geology, but is unlikely to be available before 2042.

Management of Dungeness Intermediate Level Waste (ILW)

6.7.8 The majority of ILW produced during the decommissioning of Dungeness A and B will be during the Final Site Clearance Phase. It will need to be kept in purpose built stores at Dungeness until the national repository is available. Such storage must be within a nuclear licensed site. It is unlikely that the MWDF will need to identify and assess alternative sites for the disposal of ILW.

Management of Dungeness Low Level Waste (LLW)

6.7.9 Defra produced a policy framework on Low Level Waste Management in 2007.[(64)] It proposed that nuclear licensed sites should have a plan for the management of their LLW which complies with the waste hierarchy. In response the NDA published a draft strategy for managing solid LLW in June 2009. Currently all LLW is sent to the *Low Level Waste Repository* (LLWR) near Drigg in Cumbria, but its capacity could be exhausted by 2020. The strategy therefore seeks to extend the life of the repository at Drigg by reduction of waste, ensuring that only waste which needs highly engineered storage is sent there, and finding other waste management routes.

6.7.10 The strategy also notes that disposal of LLW and Very Low Level Waste (VLLW) to an engineered facility on or adjacent to nuclear licensed sites may be an option. This would be consistent with the principle of ensuring that waste is disposed of to the nearest appropriate installation. At Dungeness there are already some LLW facilities. Therefore it is a requirement of the M&WDF to make provision for this waste stream.

64 Defra (2007) Policy for the long term management of solid low level radioactive waste in the UK.

Non Radioactive Wastes

6.7.11 The majority of waste produced by decommissioning Dungeness A will be not be radioactive, and will be treated and managed with other wastes in Kent of the same kind. Most of the 16,600 tonnes of hazardous waste is expected before 2030 in the Care and Maintenance Preparations phase, and includes asbestos wastes. There will also be about 30,700 tonnes of non hazardous waste and 64,600 tonnes of inert waste, the latter mainly in the final site clearance stage.

Option 16

Temporary Storage and Management of Low Level Nuclear waste (LLW) and Very Low Level Nuclear Waste (VLLW) at Dungeness

Option 16A The Dungeness site will be identified as a suitable location for the temporary storage and management of LLW and VLLW;

Option 16B Alternative sites will be identified in Kent for this purpose.

6.7.12 In view of the absence of any alternative proposals being submitted to the M&WDF for the 'Call for Sites', Option 16A is the preferred option.

Non Nuclear Industry

6.7.13 The Defra policy framework on *Low Level Waste Management* applies to the non nuclear industry (NNI) which has tended to rely on incineration and landfill. There are a number of NNI producers of LLW and VLLW in Kent, such as hospitals and research establishments. This waste is likely to be a very small quantity relative to the nuclear industry. The sustainability appraisal scoping report for the Defra strategy suggests that NNI waste produced in Kent travels relatively short distances to incinerators, and that there are no landfills which take non nuclear LLW.

6.7.14 The M&WDF strategy will encourage the use of conventional waste management facilities for NNI wastes, consistent with the government's view that communities should take more responsibility for managing such wastes.

7 Proposed Delivery Strategy for Minerals

7.0.1 In order to deliver the objectives and broad principles for sustainable mineral supply and safeguarding in Kent, the following policies define the delivery strategy.

Sustainable Development and Climate Change

Policy CSM1

Sustainable Development and Climate Change

Proposals for minerals development will be required to address the Government's objectives for sustainable development appropriately whilst also meeting the Kent M&WDF Sustainability Framework Objectives.

The government's priorities for climate change include:-

- social inclusion, recognising the needs of everyone;
- effective protection and enhancement of the environment;
- prudent use of natural resources; and
- maintaining high and stable levels of economic growth and employment.

All new minerals development must assist in mitigating the effects of climate change.

Supply of Land-won Minerals

7.0.2 Specific Sites for the future supply of land won minerals will be identified in the Mineral Sites Development Plan Document. When it is not possible to identify sufficient Specific Sites to meet the landbank requirements identified , for any particular mineral type identified in the above three policy sub-sections , Areas of Search [(65)]. will be established.

7.0.3 Areas of Search will also be established for land-won minerals which have a landbank which is sufficient to last the entire plan period at the time of plan preparation. These areas of search will be established in order to give sufficient flexibility to deliver an adequate and steady supply of minerals in cases where the landbank situation may change.

65 Areas of Search are broad areas where knowledge of mineral resources may be less certain than in other types of site allocations, but within which planing permissions could be granted to meet any shortfall in supply if suitable applications are made

7.0.4 The sand and gravel landbank will contain reserves of land-won sharp sand and gravel, soft sand (building sand) and sandstone gravels to reflect the different types of geological formations in Kent which are used as construction aggregates.

Policy CSM2

Supply of Land - Won Minerals in Kent

1. Aggregates

Provision will be made to enable the supply of 1.63million tonnes per annum (mtpa) of land-won sand and gravel and 0.78mtpa of crushed rock throughout the plan period, subject to any agreed revisions to the apportionments that apply to Kent.

Sufficient Specific Sites[66] will be identified in order to enable the maintenance of landbanks [67]of permitted reserves for aggregate supply from land-won mineral sources equivalent to at least 7 years apportionment for sand and gravel and at least 10 years apportionment for crushed rock.

2. **Brickearth and Clay for Brick and Tile Manufacture**

Sufficient Specific Sites will be identified for brickearth and clay for brick and tile manufacture to enable the maintenance of landbanks of permitted reserves equivalent to at least 25 years of production based on past sales (using a rolling three year annual average sales figure).

3. Silica Sand

Sufficient Specific Sites will be identified for silica sand production in order to maintain landbanks at existing sites of 10 years and at any suitable new sites of 15 years, subject to:-

- All environmental impacts being controlled to ensure that there are no detrimental effects on the environment, the landscape or local communities;
- If the development is in the AONB, it must be demonstrated how it meets the requirement for exceptional circumstances and why it is demonstrated to be in the public interest. Such applications must include consideration of:-

  (i) the need for the development, including national considerations of mineral supply and it's impact upon the economy; and

  (ii) the cost of, and scope for making available an alternative supply from outside the designated area, or meeting the need in some other way.

66 Specific Sites are generally where viable mineral resources are known to exist, where landowners are supportive of mineral development taking place and where MPAs consider that planning applications are likely to be acceptable in planning terms.

67 landbanks are stocks of planning permissions.

- Applications for silica sand developments will be required to demonstrate:-

  i) how the development meets technical specifications to meet silica sand (industrial sand) end uses; and

  (ii) How the mineral resources will be used effeciently so that high grade sand deposits are reserved for industrial end uses.

Cement Manufacture

7.0.5 Re-establishing cement manufacture in Kent is considered to be sufficiently important to the achievement of the M&WDF Strategy, to warrant it's identification as a 'Strategic Site' Core Strategy Policy:-

Policy CSM3

Cement Manufacture In Kent

The permitted Medway Works, Holborough and its permitted mineral reserves are together identified as a Strategic Site for Minerals in Kent. This site location is shown on Figure 15.

Mineral Safeguarding

7.0.6 The safeguarding of land-won economic minerals needs to be covered by a Core Strategy Policy. This can be carried out through the designation of Mineral Safeguarding Areas (MSAs) and Mineral Consultation Areas (MCAs). Their definitions are given below.

7.0.7 MSAs are areas of known mineral resources that are of sufficient economic or conservation value to warrant protection for generations to come. The level of information used to prove the existence of a mineral resource can vary from geological mapping to more in depth geological investigations. Defining MSAs carries no presumption for extraction and there is no presumption that any areas within MSAs will ultimately be environmentally acceptable for mineral extraction. Areas of Search, Preferred Areas, and Specific Sites are designated for that purpose; to indicate to mineral operators and others the places where mineral extraction is most likely to take place.

7.0.8 The purpose of MSAs is to ensure that mineral resources are adequately and effectively considered in land-use planning decisions, so that like other finite resources, they are not needlessly sterilised, compromising the ability of future generations to meet their needs. Mineral Safeguarding Areas will make relevant parties aware of the presence of mineral resources and will make specific local planning policies applicable to those areas. All Mineral Planning Authorities, both

unitary and two-tier authorities, must include policies and proposals to safeguard mineral resources within MSAs and show them in their Development Plan Documents (DPDs), to alert prospective applicants for planning permission to the existence of valuable mineral resources and to show where specific local mineral safeguarding policies apply. In two-tier authorities, the Mineral Planning Authorities must pass information on the location of MSAs to the district councils and districts are obliged to ensure that they are shown in appropriate district Local Development Documents (LDDs).

7.0.9 MCAs are a mechanism that aims to ensure that in two-tier authority areas consultation takes place between county and district planning authorities when mineral interests could be compromised by non-mineral development. The definition of MCAs is not obligatory, but consultation within an MCA is. They are a useful additional method of supporting mineral safeguarding by facilitating discussion between respective authorities. MCAs also give an additional measure of safeguarding to sites relating to minerals infrastructure, such as wharves and railheads that cannot be protected by MSAs which should only be defined to protect the resource itself. MCAs can be updated more easily than MSAs as their statutory basis is outside that of the development framework. They can therefore be responsive to the latest information on geology and mineral economics. A regularly updated and used set of MCAs can complement the protection of mineral interest facilitated by MSAs[(68)] .

Policy CSM4

Land-Won Mineral Safeguarding

Economic mineral resources will be safeguarded from being unnecessarily sterilised by other development by the identification of:-

- Mineral Safeguarding Areas for the areas of known, remaining brickearth, sharp sand and gravel, soft sand (including silica sand), ragstone and building stone;
- Mineral Consultation Areas will be identified adjacent to the Strategic Site at Medway Works, Holborough and around Specific Sites identified in the Mineral Sites Development Plan Document and at the proposed surface working area associated with the East Kent Limestone Mine.
- Specific Sites for Mineral Working and Areas of Search which will be defined in the Mineral Sites DPD.

Recycled and Secondary Aggregates.

68 Source: 'A Guide to mineral safeguarding areas in England' 2007, (McEvoy et al)

7.0.10 In order to ensure that as much secondary and recycled aggregate is recycled in Kent, it is necessary to identify sites for this use.

Policy CSM5

Secondary and Recycled Aggregates

Sufficient Specific Sites will be identified to provide capacity to recycle 1.4mtpa of secondary and recycled aggregates for the duration of the plan (i.e. up to the end of 2030).

Outside identified Specific Sites, recycling facilities for secondary and recycled aggregate production will be granted planning permission subject to the proposals according to the other relevant policies in the Minerals and Waste Development Framework, at demolition, construction, land reclamation, highways and smaller scale regeneration and reclamation projects and at the following locations:-

- Existing mineral operations (including wharves and railheads);
- Existing waste management operations;
- Appropriate industrial estate locations; and
- Other appropriately located sites close to the source of materials with good infrastructure links.

Where environmental impacts can be controlled to an acceptable level, planning permission will be granted to re-work old inert landfills if net gains in landscape and biodiversity or amenity can be achieved by the operation.

Building Stone in Kent

7.0.11 Whilst at present only two operational ragstone quarries can provide building stone for building conservation uses, in the past small scale quarries have provided locally distinctive stone including Paludina Limestone (found near Bethersden), Tunbridge Wells Sandstone and flint from the chalk have been popular building materials and supplies of these may be needed in the future to maintain the buildings that utilise them. Calcareous tufa found in small outcrops near Ditton have been used in a few buildings including Leeds Castle.

7.0.12 National policy in MPS1 requires the recognition of the important role that small quarries can play in providing historically authentic building materials in the conservation and repair of historic and cultural buildings and structures.

Policy CSM6

Building Stone

Planning permission will be granted for small scale proposals that are necessary to provide a supply of suitable local building stone necessary for restoration work associated with the maintenance of Kent's historic buildings and structures subject to:-

- Development taking place in appropriate locations where the proposals do not have unacceptable amenity or environmental impacts;
- All environmental impacts being controlled to ensure that there is no significant effect upon sensitive receptors; and
- The site is restored to a satisfactory standard and after-use.

Oil Gas Coal Bed Methane

Policy CSM7

Oil, Gas and Coal Bed Methane

Planning permission will be granted for proposals associated with the exploration, appraisal and development of oil, gas (including shale gas and natural gas development), coal-bed methane, abandoned mine methane development and underground coal seam gasification subject to:-

- Development taking place in appropriate locations where the proposals do not have unacceptable amenity or environmental impacts;
- All environmental impacts being controlled to ensure that there is not a significant effect upon sensitive receptors;
- Exploration and appraisal operations are for an agreed, temporary length of time; and
- The drilling site being restored to a satisfactory standard and after-use.

Underground Limestone Prospecting

7.0.13 Whilst the East Kent Limestone mine has not been progressed since it was included in the 1993 Kent Minerals Subject Plan, it is still considered to be a possible long term source of construction aggregates in Kent.

Policy CSM8

Underground Limestone

Planning permission will be granted at suitable locations for the drilling operations associated with the prospecting for underground limestone resources in East Kent subject to:-

- All environmental impacts being controlled to ensure that there is no significant effect upon sensitive receptors;
- Operations are for an agreed, temporary length of time; and
- The drilling site is restored to a satisfactory standard and after-use.

Sustainable Transport of Minerals

7.0.14 Whilst there have not been any proposals for new wharves and railheads for consideration in the Mineral Sites Development Plan Document, in line with the requirements of sustainable development, it is important to encourage the sustainable transportation of minerals by rail and water wherever possible.

Policy CSM9

Sustainable Transport of Minerals

Planning permission for new wharf and railhead importation operations which include the transport of the minerals by sustainable means (i.e. sea or rail) as the dominant mode of transport will be granted, where:-

- they are well located in relation to the Key Arterial Routes across Kent;[(69)] and
- environmental impacts can be controlled so that there is no significant effect upon sensitive receptors.

Safeguarding Wharves and Railheads

7.0.15 Kent has a range of mineral importation facilities around its coast as well as inland. The strategic importance of safeguarding these facilities is required in national planning policy, in Mineral Policy Statement 1, Para 13. The locations of the safeguarded facilities are shown on the key proposals diagram and maps in Appendix C.

69 These are made up of Motorways and Trunk Roads, County Primary Routes and County Principle Routes. County Primary Routes link major urban centres, including the A228/A26 between Medway and Tonbridge, the A229 between Medway and East Sussex, the A299 between Faversham and Thanet, the A28 between Thanet and East Sussex, the A256 between Dover and Thanet, the A26 between Tonbridge and Tunbridge Wells and the A25 between Wrotham and Sevenoaks. County Principal routes are generally A class roads with relatively high traffic flows, including the A225 between Sevenoaks and Dartford and the A251 between Faversham and Ashford. These are shown on Plan 12

Policy CSM10

Safeguarded Wharves and Railheads

The following sites are safeguarded for their continued use for the importation of minerals into Kent:-

Allington Rail Sidings;

Sevington Rail Depot;

Hothfield Works;

East Peckham;

Ridham Dock (both operational sites);

Johnson's Wharf Greenhithe;

Robins Wharf, Northfleet (both operational sites);

Denton Wharf;

East Quay, Whitstable;

Red Lion Wharf;

Ramsgate Harbour;

Bevans Wharf, Northfleet;

Northfleet Wharf;

Dunkirk Jetty (Dover Western Docks);

Sheerness; and

Botany Marshes.

Their locations are shown on the Key Proposals Map and their site boundaries are shown in Appendix C.

Applications for development adjacent to or opposite a safeguarded importation facility will need to demonstrate that acceptable levels of noise, dust, light and air emissions derived from the current importation site would be experienced at the development. Vehicle access to and from the wharf or railhead must not be jeopardised by the development.

8 Proposed Delivery Strategy for Managing Waste

8.0.1 The following policies give the proposed delivery strategy for waste management in Kent up to the end of 2030.

8.0.2 **Sustainable Waste Management and Climate Change**

Policy CSW1

Sustainable Waste Management and Climate Change

Proposals for waste development will be required to address the Government's objectives for sustainable development appropriately whilst also meeting the Kent M&WDF Sustainability Framework Objectives.

The government's priorities for climate change include:-

- social inclusion, recognising the needs of everyone;
- effective protection and enhancement of the environment;
- prudent use of natural resources; and
- maintaining high and stable levels of economic growth and employment.

All new waste development must assist in mitigating the effects of climate change.

Waste Hierarchy

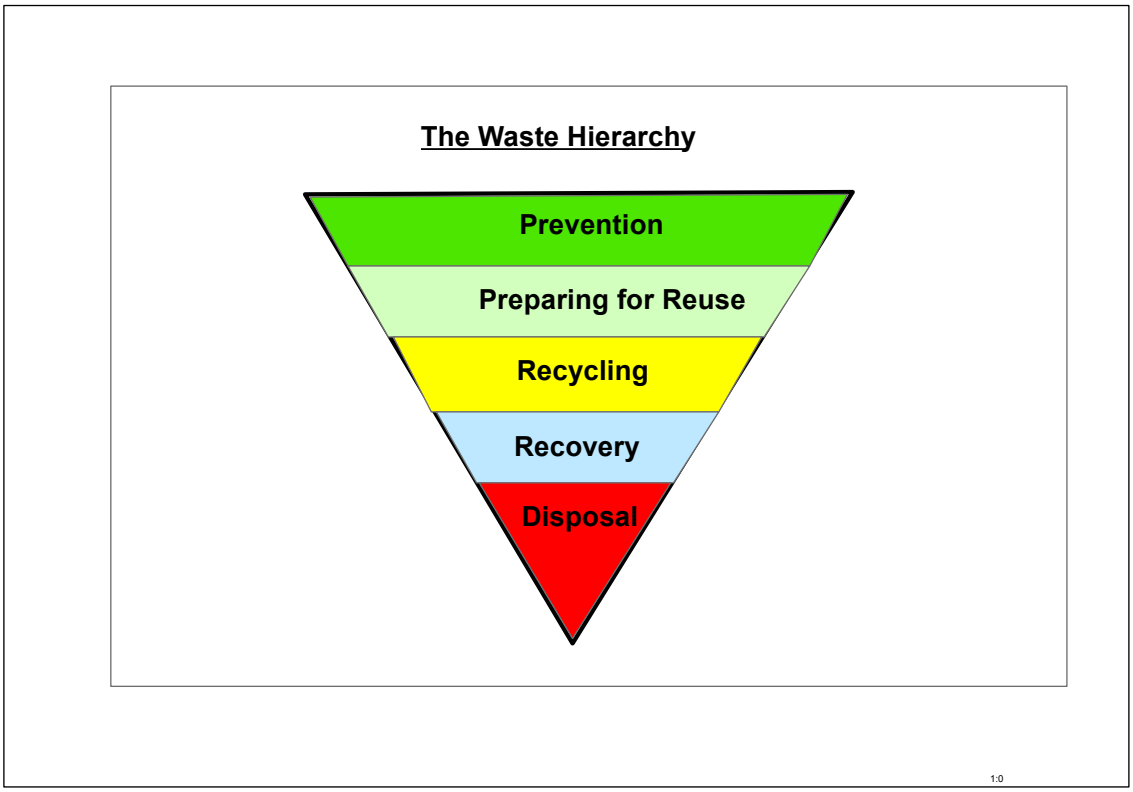
8.0.3 The waste heirarchy diagram below is a simplified version of that given in the Defra 2010 consultation document.[70]

Policy CSW2

Waste Hierarchy

In order to deliver sustainable waste management solutions for Kent, proposals for waste management must demonstrate how waste is being driven up the waste hierarchy. The order of preference for waste management solutions is Prevention, Preparing for Re-use, Recycling, Other Recovery, Disposal with Disposal being the least preferable option.

70 Defra (2010) 'Guidance on Applying the Waste Heirarchy'



8.0.4 Waste Reduction

Policy CSW2A

Waste Reduction

All new development shall minimise the production of construction, demolition and excavation waste and incorporate into its design adequate space for the occupiers of the proposed buildings to store waste separately from recyclable and compostable materials prior to their collection. The following details shall be submitted with the planning application:

(a) The measures to be taken to show compliance with this policy on waste reduction; and

(b) A construction waste plan detailing the nature and quantity of any construction, demolition and excavation waste to be sent off site and the destinations.

Strategy for Waste Management Capacity

8.0.5 Kent currently achieves net self-sufficiency in waste management facilities for all waste streams (i.e. the annual capacity of the waste management facilities excluding transfer in Kent is sufficient to manage the waste arising in Kent). This

principle is a goal for the M&WDF as it shows that Kent is not placing any unnecessary burden on other Waste Planning Authorities to manage its waste. Net self-sufficiency can be easily monitored on an annual basis and will provide an indicator as to whether the policies in the Framework need to be reviewed.

8.0.6 In reality, waste moves both into and out of Kent for management. The purpose in adopting the principle of net self-sufficiency is not to restrict the movement of waste. Restriction on waste catchment area could have an adverse effect upon the viability of the development of new waste facilities which are needed to provide additional capacity for Kent's waste arisings. The issue of the distance which waste has to be transported to new waste facilities is dealt with by the application of the proximity principle.

Policy CSW3

Strategy for Waste Management Capacity

The strategy for waste management capacity in Kent is to provide sufficient waste management capacity to manage at least the equivalent of the waste arising in Kent plus a declining amount of waste from London. As a minimum it is to achieve the targets for recycling and composting, reuse and landfill diversion identified in the Kent Joint Municipal Waste Management Strategy[71] and the Regional Spatial Strategy[72]

Strategic Waste Sites

8.0.7 In order to meet the Core Strategy objective of reducing the amount of waste being landfilled, the Core Strategy is using policies to drive a major change in the way that waste is managed in Kent. To do this will require increasing numbers of facilities for recycling, composting and anaerobic digestion as well as additional facilities for energy from waste (EfW). Enabling the change in perception of waste being 'something that has to be disposed of' to 'waste as a resource' will need sufficient local capacity for the treatment or disposal of the residues arising from the existing and future EfW plants.

8.0.8 Whilst Kent has the benefit of a major EfW plant at Allington, which features heavily in the WMU contracts for MSW, additional EfW facilities will be required during the plan period to deal primarily with the volumes of C&I waste arising in Kent which are currently sent to landfill.

71 Kent Waste Partnership (April 2007). Kent Joint Municipal Waste Management Strategy
72 (South East Plan, May 2009)

8.0.9 The landfill at Norwood, Sheppey accommodates the flue ash residues from Allington, but it has limited consented void space remaining. In order to make provision for this waste for the duration of the plan and for other possible new waste streams from new EfW plants which become operational during the plan period, it is essential that Kent has the capacity to deal with these residues.

8.0.10 Therefore, a matter fundamental to the central achievement of the plan is the identification of a suitable location for the treatment or disposal of the hazardous waste residues. Only one site for this use was submitted to the County Council in response to the 'Call for Sites', in 2010. That is an extension to the existing facility at Norwood Quarry. Norwood benefits from suitable geology for this purpose. However, in order to drive waste management in Kent up the waste hierarchy, it will not be identified as a 'Strategic Site' until alternative possibilities of treating this waste stream have been explored. To identify this site at this relatively early stage of the plan making process could prejudice the Core Strategy objective of the movement up the waste hierarchy.

Policy CSW4

Strategic Site for Waste

The Adopted Core Strategy will identify and allocate the most sustainable[(73)] solution to deal with the hazardous waste flue ashes which arise from Kent's energy from wastes facilities as a Strategic Site for waste.

8.0.11 **Non Strategic Sites**

8.0.12 The preference identified in response to questions in the Core Strategy 'issues' consultation was for a mix of new small and large sites for waste management. This mix gives flexibility and assists in balancing the benefits of proximity to waste arisings whilst being able to enable operators of large sites to exploit economies of scale.

8.0.13 In particular the need for a new waste transfer facility for MSW in the Ashford area has been identified. In addition, the need for waste management facilities for C&I wastes in East Kent to meet the needs of waste arisings in Thanet, Canterbury, Shepway and Dover is apparent from the evidence base.

8.0.14 Not withstanding the broad locations identified above, there will still be a need for more dispersed locations for certain types of waste, such as specialised hazardous waste management as well as CDE recycling facilities which are often co-located on mineral sites, which by their very nature are usually in rural areas.

73 Sustainable development is considered to be 'a pattern of resource use that aims to meet human needs while preserving the environment so that these needs can be met not only in the present, but also for generations to come'.

Policy CSW5

Non Strategic Waste Sites

The strategy for non-strategic waste sites is to locate them in the following areas, taking into account the principles set out in Policy CSW6: Location of Non-Strategic Waste Sites.

1. Areas of Search for non-strategic waste sites indicated in the Key Diagram;

2. In or close to the Growth Areas of Ashford and Thames Gateway;

3. In or close to other urban areas;

4. Within or adjacent to existing minerals or waste sites where it can be demonstrated that benefits arise from co-location.

Where it can be demonstrated that a more rural location is better suited to the proposed waste use, locations in rural areas will be considered subject to the principles set out in Policy CSW6.

8.0.15 Locational Principles

8.0.16 The possibility of locating some waste uses on existing industrial estates is being assessed as part of the evidence base. Whilst this evidence gathering is not yet completed, the initial stages of this work have identified the possibility of using suitable industrial estates for some waste management uses. Whilst high turnover at the industrial estates generally precludes identification of any particular unit unless it is being promoted by an operator, whole industrial estates may be identified as a suitable location. However, industrial estate locations may not be suitable for some types of waste uses, due to high land and rent costs, or because of their limited size or close proximity to sensitive receptors.

8.0.17 Previously developed land, derelict or contaminated land can in some circumstances, be suitable for some waste uses.

8.0.18 Existing mineral and waste management sites may offer good locations for siting some waste management uses due to their infrastructure and location. Often the co-location of minerals and waste facilities offer wider benefits.

8.0.19 Un-used or under-used agricultural or forestry buildings may be suitable for waste uses also.

Policy CSW6

Location of Non Strategic Waste Sites

Non strategic waste sites will be located in accordance with both Policy CSW5 and the following approach, providing that there is no unacceptable harm to sensitive receptors. The locational types (a) to (e) below are not listed in any particular order of priority.

(a) Land with an existing mineral or waste management use, where transport, operational and environmental benefits can be demonstrated as a result of the co-location of the facilities.

(b) Land forming part of a new major development proposal;

(c) Existing suitable industrial/employment land, subject to an appropriate site being available;

(d) Other previously developed land;

(e) Contaminated or derelict land;

(f) Existing mineral workings (for the duration of the host site);

(g) Unused or underused agricultural and forestry buildings and their curtilages;

Waste development will only be acceptable on greenfield sites if it can be demonstrated that there are no suitable locations identifiable from category (a) to (g) above.

8.0.20 Approach to MSW[74] and C&I[75] Waste Management in Kent

8.0.21 The following policy provides a strategy for the provision of new waste management capacity which will achieve the RSS targets for recycling and composting and increase the provision of new waste management capacity for recovery above the RSS target. If successful this policy will result in minimising the amount of Kent MSW and C&I waste going for disposal to non-hazardous landfill to less than 50,000 tpa by the end of the plan period. It will also assist in retaining existing non-hazardous landfill capacity in Kent at the end of the plan period for any non-hazardous waste that cannot be reused, recycled, composted or recovered.

8.0.22 This policy shows that a gap in provision in recycling and composting occurs in the period of 2020 to 2025 (if the RSS targets are to be met). The table in the policy specifically states that the additional capacity required for recycling and

74 MSW is short for 'municipal solid waste'
75 C&I is short for 'commercial and industrial waste'

composting is a minimum. There is no intention to restrict the percentage of waste recycled or composted to the RSS targets and increasing the proportion of waste going to this method of waste management would be welcomed. Furthermore, there is also no intention to restrict provision of the additional recycling and composting capacity to the later part of the plan period as the sooner it is delivered, the greater the impact will be on reducing waste going to landfill.

8.0.23 The reliance being placed upon a major increase in additional future capacity through the recovery of waste is regarded as being deliverable due to the responses received to the 'Call for Sites' for the Sites DPD, which include sufficient EfW proposals to meet the required additional capacity.

Policy CSW7

Approach to Waste Management for MSW and C&I waste

In seeking to be as self sufficient as possible in managing MSW and C&I waste arisings in Kent, and for providing for limited amounts of C&I waste from London, sufficient sites for waste management facilities will be identified in the Waste Management Sites Development Plan Document to meet identified needs as a minimum, including the following capacity.

MSW & C&I(76) Waste Additional Capacity Requirements

Year	Additional Recovery Capacity Required[1] (tonnes per annum)	Indication of Number of New Facilities for Recovery Needed	Minimum Additional Recycling and Composting (tonnes per annum)	Indication of Number of New Facilities Needed for Recycling or Composting[2]
2010	0	0	0	0
2015	400,000	2-4	0	0
2020	200,000	1-2	0	0
2025	50,000	1	160,000	1-4
2030	50,000	1	100,000	1-2
Total	700,000	5-8	260,000	2-6

Notes from table:

1. Calculation of capacity at any proposed sites may include recycling and composting in an integrated waste management facility providing the total capacity calculated results in no significant amount or residue having to go to non hazardous landfill. These figures are based on the high growth forecasts.

2. Additional capacity required to achieve RSS recycling and composting rates of 65% C&I waste and 60% MSW by 2025.

Waste management capacity for MSW and C&I wastes will be provided through:

76 For definitions of these waste streams please see Glossary in Appendix 1.

(a) a new waste transfer station at Ashford to bulk MSW going from East Kent to Allington;

(b) a network of existing and improved sites for MSW transfer and recycling and Household Waste Recycling facilities;

(c) sites for managing C&I waste arisings, including EfW, recycling, in-vessel (enclosed) composting facilities and Anaerobic Digestion (AD).

Proposals for AD, composting, EfW, mechanical-biological treatment (MBT) and other energy & value recovery technologies that assist Kent in meeting the capacity gap identified in this policy will be permitted provided that:

(i) pre-sorting of the waste is carried out;

(ii) recovery of by-products and residues is maximised;

(iii) energy recovery is maximised (utilising both heat and power);

(iv) any residues produced can be managed or disposed of sustainably;

(v) the proposal does not cause unacceptable harm to any sensitive receptors.

Proposals for the management of green waste and/or kitchen waste will be permitted for processes that are Animal By Product Regulation complaint (such as in-vessel composting or AD).

Proposals for open composting of green waste will be permitted for small scale facilities of less than 100 tonnes per week where the development is located within a farm unit and the compost is used within that unit.

Approach to Energy from Waste Facilities

8.0.24 One of the fundamental aims of the Core Strategy is to reduce the amount of MSW and C&I waste being sent to landfill. Therefore there will need to be a substantial (increasing) capacity in EfW plants brought into operation in the plan period. To give sufficient flexibility for waste management in Kent up to 2030, the RSS 'High Growth' forecasts have been used to estimate the amount of additional EfW capacity which is required. The total amount is shown as 700,000tpa as 'additional recovery capacity required' in the table in Policy CSW6 above. New EfW plants will need to be designed and constructed to operate as as 'recovery' processes utilising (or capable of utilising) both heat and power.

8.0.25 To facilitate recycling developments through the mechanical and/or biological treatment of waste, it will be necessary to develop power plants that can be fuelled by the residue from recycling operations when the residue is specifically processed

to manufacture a fuel. This will reduce the pressure on non-hazardous landfill capacity and enable the operators of recycling plants to utilise a more sustainable option than landfilling their residues.

Policy CSW8

Approach to Energy From Waste Facilities

Additional EfW waste facilities will be identified in the Waste Management Sites Development Plan Document to treat a capacity of 700,000 tonnes per year.

EfW facilities will be permitted if they are recovery facilities that are designed to meet or exceed the energy efficiency ratio of 0.65 (as defined by Annex II of the Revised Waste Framework Directive)[77] and are designed for both the production of heat and power.

When an application for an EfW facility has no proposals for use of the heat when electricity production is commenced, the development will be permitted if it is located in an area that has potential users for the heat and the applicant and landowner enter into a planning agreement to market the heat and to make an annual public report on the progress being made toward finding users for the heat.

EfW facilities which exceed an annual design capacity for 195,000 tonnes per year of waste will be permitted subject to the applicant (or landowner) entering into an agreement to contribute to a Kent Community Fund or make other contributions in kind to the local community in which the facility is to be situated.[78]

8.0.26 It is anticipated that power plants that use fuel manufactured from waste will be developed in Kent in the future. When granted planning permission, these proposed developments will not be included in the additional recovery capacity provision required by Policy CSW7. To do so would effectively double count waste capacity already provided by Mechanical and/or Biological Treatment (MBT) plants which produce the waste derived fuel. However, for clarity, when an energy from waste plant is to be developed in combination with a MBT plant or it is to be fuelled by unprocessed waste, Policy CSW7 capacity provision requirements will apply.

Approach to Inert Waste Management in Kent

77 Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives.

78 Contributions in kind could include subsidised energy for local communities and/ or nearby community facilities including schools, colleges, community centres, third sector organisations and faith centres, or other suitable means.

Policy CSW9

Inert Waste Management Provision

In order to be self sufficient in the management of inert waste, sufficient sites for waste management facilities for inert waste will be identified in the Waste Management Sites Development Plan Document to meet identified needs as a minimum, including the following capacity.

Inert Waste Treatment Capacity Needed (million tonnes)

Waste Management Technique	Total Capacity Required in Plan period	Existing Capacity at Sites which have planning permission and permits	Shortfall Capacity to be provided for in Sites Allocation Document[2]	Estimated Number of Additional Sites Required
Inert landfill	6.742	26.114	0	0
Inert Transfer/Recycling	1.550 per annum	2.019 per annum	0.880 per annum	10[1]

Notes:

1. The shortfall is derived from estimating the capacity at existing sites with temporary planning permissions (including those based at mineral workings).

2. In order to achieve 60% recycling by 2020

In order to restore quarries which have a capacity and a need for inert waste landfill for restoration purposes, the non-recyclable fractions of Construction, Demolition and Excavation (CDE) wastes will be targeted at quarry restoration projects as a priority.

8.0.27 Non-Hazardous Landfills

Policy CSW10

Non Hazardous Waste Landfill

The strategy for non-hazardous waste landfill is only to grant planning permission for new sites or extensions to existing sites if:-

(a) it can be demonstrated that the waste stream that needs to be landfilled cannot be managed through alternative technologies which are higher in the waste hierarchy or disposed of at existing sites;

(b) environmental benefits are to be secured by the development; and

(c) the proposal does not cause unacceptable harm to any sensitive receptors.

8.0.28 Inert Waste Landfill

Policy CSW11

Inert Waste Landfill

Planning permission for the disposal of inert waste will be granted where:-

(a) it can be demonstrated that the waste cannot be managed in a more sustainable way;

(b) it is for the restoration of a mineral working or despoiled land;

(c) it can be demonstrated that the use of inert waste in the development will not have an adverse effect upon the timescale for the completion of restoration of existing mineral workings within the district or any adjoining district;

(d) environmental benefits will result from the development;

(e) that sufficient material is available to restore the site within agreed timescales; and

(f) the proposal does not cause unacceptable harm to the environment or communities.

Closed Biodegradable Landfills

Policy CSW12

Closed Biodegradable landfill sites

Permission will be granted for development that reduces the effects on the environment of closed landfill sites which contain biodegradable waste for any of the following purposes:

- development for the improvement of restoration for an identified after use for the site;
- development for the reduction of emissions of gases or leachate to the environment; or
- development making use of gases being emitted and which will reduce the emission of gases to the environment, and
- development will not cause unacceptable harm to the environment or communities.

Remediation of Brownfield Land

Policy CSW13

Remediation of Brownfield Land

Permission will be granted for a temporary period for waste developments on brownfield land which facilitate its redevelopment by reducing or removing contamination from previous development if:

- the site is identified in a LDF for redevelopment or has planning permission for redevelopment; or
- the site is part of a network of brownfield sites which are identified in a LDF or LDFs for redevelopment or which have planning permission for redevelopment and is to receive waste for treatment from those sites as well as treating the land within the site

and the development will not cause unacceptable harm to the environment or communities.

8.0.29 **Disposal of Dredgings**

Policy CSW14

Disposal of Dredgings

Planning permission will be granted for new sites for the disposal of dredging materials where it can be demonstrated that:-

(a) The re-use of the material to be disposed of is not practicable; &

(b) The proposal does not cause unacceptable harm to the environment or communities.

8.0.30 Policy for Nuclear Waste Treatment and Storage at Dungeness

Policy CSW15

Nuclear Waste Treatment and Storage at Dungeness

Facilities for the storage or management of Low Level and Very Low Level radioactive waste generated at Dungeness will be acceptable within the Nuclear Licensed area at Dungeness where:

a) This is consistent with the national strategy for managing Low Level and Very Low Level radioactive waste and discharges;

b) The outcome of environmental assessments justify it being managed on site; and

c) Facilities are located and designed in order to minimise adverse impacts on the environment.

Such facilities will not be acceptable outside the Nuclear Licensed Site at Dungeness.

Only Low Level and Very Low Level radioactive waste generated at Dungeness shall be treated or stored in such facilities. There shall be no disposal to land activities of any waste at the site.

8.0.31 Other Forms of Waste Management

8.0.32 Water treatment undertakers have extensive rights to carry out development without the need to obtain planning permission under the Town and Country (General Permitted Development) Order 1995 (GPDO). New proposals for waste water treatment works as well as extensions and modifications to existing waste water

treatment facilities however will require planning permission. In view of their potential size and potential impacts from odours in particular, they need to be relatively remote from residential areas and located on the edge of settlements.

Policy CSW16

Other Forms of Waste Development

Other forms of waste development not covered by specific policies in the Core Strategy will be granted planning permission, subject to:-

(a) there being a proven need for the proposed facility; and

(b) the proposal does not cause unacceptable harm to the environment or communities.

9 Development Management Policies

9.0.1 The following suite of draft development management policies gives details of the proposed range of subjects and content to be included in drawing up a robust development management regime for minerals and waste applications.

9.0.2 The proposed National Planning Policy Framework (NPPF) will not contain the level of detail currently held within national planning policy statements and their guidance notes. In view of the uncertainty regarding the level of detail and content that is to be contained in this NPPF, it is likely that the following draft policies will need to be expanded or modified at pre-submission stage of the Core Strategy. As they represent the first stage of the drafting process, these draft policies are not accompanied by any pre-amble. They should be self-explanatory.

9.0.3 It is important that these policies avoid duplication with other regulatory functions.

Policy DM1

Sustainable Design

Proposals for minerals and waste development will be required to demonstrate that they have been designed to ensure impact on the environment is minimised by appropriate measures to:

(a) reduce greenhouse gas emissions and other forms of emissions;

(b) minimise levels of energy and water consumption and incorporate measures for renewable energy technology and design in new facilities;

(c) minimise production of waste during construction and operation;

(d) maximise the re-use or recycling of materials; and

(v) protect and enhance the character and quality of an area.

Sites of International, National and Local Importance

Policy DM2

Sites of International, National and Local Importance

Proposals for minerals and waste development will be required to ensure that there is no significant adverse effect on the character, appearance, ecological, geological or amenity value of sites of international, national and local importance, including:

(a) Internationally Designated sites including Ramsar, SPAs and SACs;

(b) Sites of Special Scientific Interest;

(c) Local Wildlife Sites (LWS);

(d) Local Nature Reserves;

(e) priority habitats or species identified in relevant Biodiversity Action Plans;

(f) land that is of regional or local importance as a wildlife corridor or for the conservation of biodiversity;

(g) Areas of Outstanding Natural Beauty and their setting;

(h) Regionally Important Geological sites (RIGs);

(i) Protected woodland areas including ancient woodland and aged and veteran trees;

(j) Country parks, common land and village greens and other important areas of open space or green areas within built-up areas;

(k) Conservation areas and locally listed buildings (including their setting);

(l) Scheduled ancient monuments;

(m) Historic parks and gardens; and

(n) Land or buildings in sport, recreational or tourism use;

unless it can be demonstrated that there is an overriding need for the development and any impacts can be mitigated or compensated for, such that there is a net gain or improvement to their condition.

Metropolitan Green Belt

Policy DM2A

Metropolitan Green Belt

Mineral extraction and waste management development situated in the Metropolitan Green Belt will be required to demonstrate how they contribute to the achievements of the following Green Belt objectives:-

• to provide opportunities for access to the open countryside for the urban population;

• to provide opportunities for outdoor sport and outdoor recreation near urban areas;

• to retain attractive landscapes, and enhance landscapes, near to where people live;

• to improve damaged and derelict land around towns;

• to secure nature conservation interest; and

• to retain land in agricultural, forestry and related uses.

Proposals for minerals and waste developments situated within the Green Belt will have to establish and implement measures to maintain extremely high operational environmental standards. Mineral workings in the Green Belt will need to demonstrate how phased, high quality restoration can be achieved.

Archaeological Features

Policy DM3

Archaeological Features

Proposals for minerals and waste development which are likely to affect important archaeological features will only be granted planning permission when:

(a) They have been the subject of a preliminary archaeological assessment to determine the nature and significance of any archaeological remains; and

(b) adequate provision for preservation in situ, excavation or recording of any interest is made in accordance with the level of importance of the finds.

Historic Heritage

Policy DM4

Historic Heritage

Proposals for minerals and waste developments will be required to ensure that there is no significant adverse effect on scheduled monuments or on other sites of historical or architectural importance or their settings.

Safeguarding Mineral Resources

Policy DM5

Safeguarding Mineral Resources and Importation Infrastructure

Planning permission will only be granted for alternative developments within a Mineral Safeguarding Area or in a Safeguarded Wharf or Railhead identified on the Key Proposals Map, which are incompatible with safeguarding the mineral and importation infrastructure where:

- the applicant can demonstrate to the satisfaction of the Mineral Planning Authority that the mineral or infrastructure concerned is no longer of any value or potential value; or
- the mineral can be extracted satisfactorily prior to the incompatible development taking place; or
- the incompatible development is of a temporary nature and can be completed and the site restored to a condition that does not inhibit extraction within the timescale that the mineral is likely to be needed; or
- it constitutes ‘exempt development’, namely householder applications; development already allocated in a statutory plan or infilling in existing built up areas.

Extraction in Advance of Surface Development

Policy DM6

Extraction of Minerals in Advance of Surface Development

Planning permission for mineral extraction that is in advance of approved surface development will be granted where the reserves would otherwise be permanently sterilised provided that operations are only for a temporary period and that the proposal will not cause unacceptable harm to the environment or communities. Where planning permission is granted, conditions will be imposed to ensure that the site can be adequately restored to a satisfactory after-use should the main development be delayed or not implemented.

The Water Environment

Policy DM7

The Water Environment

Planning permission will be granted for minerals or waste development so long as it does not:-

(i) have a detrimental impact on the quality or flow of groundwater or surface water drainage; or

(ii) exacerbate flood risk in areas prone to flooding and elsewhere.

Health and Amenity

Policy DM8

Health and Amenity

Proposals for minerals and waste development will be required to demonstrate that they are unlikely to generate unacceptable adverse effects from noise, dust, vibration, odour, emissions, bioaerosols, illumination, visual intrusion or traffic to adjoining land uses and users and those in close proximity to the minerals and waste development.

Cumulative Impact

Policy DM9

Cumulative Impact

Planning permission will be granted for minerals and waste development so long as it does not result in an unacceptable cumulative impact on the environment of an area or on the amenity of a local community, either in relation to the collective effect of different impacts of an individual proposal, or in relation to the effects of a number of minerals or waste developments occurring either concurrently or successively.

Transportation of Minerals and Waste

Policy DM10

Transportation of Minerals and Waste

Minerals and waste development will be required to minimise road miles except where:

(a) there is no practicable alternative to road transport which would be environmentally preferable; and

(b) the proposed access arrangements would be safe and appropriate to the proposed development and the impact of the traffic generated would not be detrimental to road safety to an unacceptable degree; and

(c) the highway network is able to accommodate the traffic that would be generated and the impact of the traffic generated would not have an unacceptable impact on the environment or local community.

Public Rights of Way

Policy DM11

Public Rights of Way

Planning permission will only be granted for minerals and waste development that adversely affect a public right of way if satisfactory proposals which are both convenient and safe are made for its diversion or the creation of an alternative route both during operations and following restoration of the site. The opportunity will be taken wherever possible to secure appropriate, improved access into the countryside.

Infrastructure Safeguarding

Policy DM12

Infrastructure Safeguarding

Proposals for minerals and waste development will be permitted where development would not give rise to new or increased hazards to aviation, rail, river, sea or road transport.

Information Required in Support an Application

Policy DM13

Information Required In Support of an Application

Planning applications for minerals or waste management development will only be considered favourably if they are supported by sufficient relevant drawings, plans and information, including the information specified in the documents, 'Waste Application Guidance Notes' and/or 'Mineral Applications Guidance Notes' or their replacement guidance documents.

Planning Obligations

Policy DM14

Planning Obligations

Planning obligations will be sought where appropriate to achieve suitable control over and to mitigate and/or compensate for the effects of minerals and waste development where such objectives cannot be achieved by planning conditions. Matters to be covered by such planning obligations may include those listed below as appropriate to the proposed development.

- revocation and consolidation of planning permissions;
- highways and access improvements;
- traffic management measures including the regulation of lorry traffic;
- provision and management of off-site or advance tree planting and screening
- extraction in advance of future development;
- environmental enhancement and the delivery of Local Biodiversity Action Plan Targets;
- protection of locally, regionally and nationally important sites;
- provision of an alternative water supply should existing supplies be affected;
- archaeological investigation, recording and keeping of artifacts and publication of results;
- establishment of a liaison committee;
- long-term site management provision to establish and/or maintain beneficial after-use;
- improvement of the rights of way network;
- financial guarantees to ensure restoration is undertaken;
- measures for environmental, recreational, economic and community gain in mitigation or compensation for the effects of mineral development.

Restoration and Aftercare

Policy DM15

Restoration and Aftercare

Planning permission for minerals and temporary waste management development will be granted where satisfactory provision has been made for the restoration and after-use of the site and where necessary for its long term management.

Restoration plans should be submitted with the planning application and where appropriate include details of those matters that are set out below.

- the key landscape opportunities and constraints;
- the site boundaries and areas allocated for soil and overburden storage;
- an assessment of soil resources and their removal, handling and storage;
- an assessment of the overburden to be removed and stored;
- the type and depth of workings and information relating to the water table;
- significant waste material locations and quantities of waste involved;
- proposed infilling operations and sources & types of fill material;
- potential directions of working and phasing;
- the need for additional screening taking account of degrees of visual exposure;
- details of the proposed landform including pre- and post-settlement levels;
- types, quantities and source of soils or soil making materials to be used;
- a methodology for management of soils;
- removal of all buildings, plant, structures, accesses and hardstandings not required for long term management of the site;
- installation of drainage;
- details of grass seeding and planting of trees, shrubs and hedges;
- a programme of aftercare.

After-use

Policy DM16

After-use

Proposals for the after-use of minerals and temporary waste management sites shall:

(i) take account of the pre-working character of the site and its landscape setting; and

(ii) employ restoration techniques that can ensure the land is retained as a long-term agricultural resource, where it is proposed to restore the land to agricultural or forestry uses; and

(iii) provide for the enhancement of the quality of the landscape, local environment or the setting of historic assets to the benefit to the local or wider community.

Aggregate Recycling

Policy DM17

Aggregate Recycling

Planning permission will be granted for aggregate recycling facilities and for development involving production of secondary and recycled aggregates at existing mineral sites and mineral importation facilities provided that they are located close to the source of materials, have good infrastructure links and will not cause unacceptable harm to the environment or communities.

Associated Industrial Development

Policy DM18

Associated Industrial Development

Proposals for ancillary industrial development within or in close proximity to mineral and waste development will be permitted provided that the proposal would not cause an unacceptable adverse impact; or it has been demonstrated that there are environmental benefits in providing a close link with the existing site which outweigh the likely environmental impacts. Where permission is granted, the operation and retention of the associated development will be limited to the life of the linked quarry or waste facility.

Incidental Mineral Extraction

Policy DM18A

Incidental Mineral Extraction

Planning permission for mineral extraction that forms a subordinate and ancillary element of other development will be granted provided that operations are only for a temporary period and will not cause unacceptable harm to the environment or communities. Where planning permission is granted, conditions will be imposed to ensure that the site can be adequately restored to a satisfactory after-use should the main development be delayed or not implemented.

Enforcement

Policy DM19

Enforcement

The County Council will carry out its planning enforcement functions within the terms of its own Enforcement Protocol (and any subsequent variations) and specifically for contraventions on waste matters, in the light of the European Union Waste Framework Directive.

10 Managing and Monitoring the Delivery of the Strategy

10.0.1 Monitoring is an important part of evidence-based policy making. Planning Policy Statement 12: Local Spatial Planning (2008)[79] requires that all Development Plan Documents are "justified and effective". In order to meet these requirements a DPD must be "founded on a robust and credible evidence base", as well as being "deliverable, flexible and be able to be monitored". The Core Strategy therefore has to include a monitoring and implementation framework.

10.0.2 The County Council is also required to monitor Core Output Indicators for the Annual Monitoring Report (AMR) of the Minerals and Waste Development Scheme (MWDS). The ones that are currently required for minerals and waste are:-

- 5a -Production of primary land-won aggregates;
- 5b - Production of secondary and recycled aggregates;
- 6a - Capacity of new waste management facilities by type; and.
- 6b - Amount of municipal waste management arising and managed, by management type and the percentage each management type represents of the waste managed.

10.0.3 In addition, Kent monitors Local Output Indicators as part of its AMR, as follows:-

- New mineral reserves that have been granted permission;
- Construction aggregate landbank;
- Other minerals landbanks;
- Safeguarding of wharves and rail depots;
- Sales of Construction Aggregates at Wharves and Rail Depots;
- Waste generation growth rate;
- Exports and imports of waste; and
- Capacity for handling waste materials in Kent

10.0.4 Whilst data for many of these indicators is supplied by the South East England Regional Aggregate Working Party (SEERAWP) and the future of the regional aggregate working parties (RAWPS) is not known, Kent intends to include these

79 Communities and Local Government, Planning Policy Statement 12 (2008), p24.

Local Output Indicators in the AMR for as long as the data remains available. In accordance with the agreements with industry and their trade associations, this information is only available in a collated form, so individual site information cannot be published. This can cause problems for planning for minerals, especially where there is a limited number of operations for particular types of mineral such as brickearth or crushed rock. The RAWP reports also provide a limited amount of information on secondary and recycled aggregates. The problem with this source of material is that operators are reluctant to provide survey returns and so the returns that are received are probably an under-representation of the amount of secondary and recycled aggregates that are produced in Kent.

10.0.5 There is less data about C & I waste arisings. Similarly, until now there has not been any regular monitoring of hazardous waste arisings in Kent or the amount of hazardous waste managed in the county. This information has recently been collated as part of the evidence base for the Core Strategy[(80)] However it is proposed to include some new Local Output Indicators to monitor the effective of the Core Strategy policies regarding these waste stream in future AMRs, as follows:-

- C&I waste generated in Kent which is landfilled in Kent and outside Kent
- Hazardous waste arising in Kent
- Hazardous waste managed in Kent

10.0.6 At pre-submission stage of the Core Strategy, this section of the document will tabulate all of the policies and their monitoring mechanisms.

80 Kent County Council (2011) Evidence Base Topic Paper TRW5 Hazardous Waste)

Appendix A: Glossary

A	
After use	The use to which a quarry or landfill site is put following its restoration, such as forestry, agriculture, recreation or industrial site.
Aggregate	Inert particulate matter which is suitable for use (on its own or with the addition of cement or bituminous material) in construction as concrete, mortar, finishes, road stone, asphalt, or drainage course, or for use as constructional fill or railway ballast.
Aggregates / Soils Recycling	Rubble, hardcore and soil from construction and demolition projects can often be re-used on-site. Alternatively it can be taken to purpose built facilities for crushing, screening and re-sale. There are also temporary facilities at some quarries landfill sites where material can be recovered for re-sale or use on site.
Agricultural Waste	The regulations for this waste stream have recently altered meaning farmers can no longer managed all of their own waste on the farm. The new agricultural waste regulations affect whether or not waste can be burnt, buried, stored, used on the farm or sent elsewhere. Mostly covers animal slurry/by products and organic waste, but also scrap metals, plastics, batteries, oils, tyres etc.
Amenity	A land use which is not productive agriculture, forestry or industrial development; can include formal and informal recreation and nature conservation.
Anaerobic Digestion (AD)	Anaerobic digestion is a natural process. It is the breakdown of organic material in the absence of air. It is a mature technology in other European countries where it is used as a waste management method. It is carried out in an enclosed vessel and produces methane which powers an engine used to produce electricity. The useful outcomes of anaerobic digestion are electricity, heat and the solid material left over called the digestate. Both the heat and the electricity can be sold if there is a market and the digestate can either be sold or used for agricultural purposes (landspread). Its use is currently small-scale and it can only be used for part of the waste stream e.g. sewage sludge, agricultural waste and some organic municipal and industrial waste.
Annual Monitoring Report (AMR)	Records progress in implementing the Local Development Scheme and the performance of policies against targets in Development Plan Documents. Indicates what action an authority needs to take if it is not on track or policies needs to be revised/ replaced.

Apportionment	Kent's share of the regional waste management capacity to be provided and Kent's share of the regional aggregate provision.
Area of Search (AoS)	'Areas of Search' are broad areas where knowledge of mineral resources may be less certain than in other types of site allocations, but within these areas planning permissions could be granted to meet any shortfall in mineral supply, if suitable applications are made.
B	
Biodegradable waste	Any waste that is capable of undergoing natural decomposition, such as food and garden waste, paper and cardboard.
Biodiversity	The variety of all life on earth (mammals, birds, fish, invertebrates, plants etc).
Brownfield Site	Site previously used for or affected by development. It may be abandoned or in a derelict condition.
Building Sand/ Soft sand	A naturally occurring type of construction aggregate found in Kent. It is mainly used for mortar production and in asphalt.
Buffer Zone	A zone or area that separates minerals and/ or waste management facilities from other land uses to safeguard local amenity.
C	
Combined Heat and Power (CHP)	Technology produces power (electricity) whilst capturing the usable heat produced in the process. It is a single, integrated and more efficient method of production.
Commercial Waste	Waste from premises used mainly for trade, business, sport, recreation or entertainment, as defined under section 5.75 (7) of the 1990 "Environmental Protection Act". As well as paper, card, plastic and glass, for example, it is likely to include timber, metal, paints, textiles, chemicals, oils and food waste.
Composting	This is the breakdown of plant matter by the action of micro-organisms and other organisms into usable end-products. It is an important method of processing organic waste because it reduces the amount of potentially polluting waste going to landfill or incineration.

Construction Waste (Also see Demolition Waste)	Waste arising from any development such as vegetation and soils from land clearance, remainder materials and off-cuts. From building sites, road schemes and landscaping projects. It is mostly made up of stone, concrete, rubble and soils but may include some timber, metal and glass.
D	
Degradable (or Putrescible) Waste (Also called Non-Hazardous Waste)	Waste which will quickly or slowly biodegrade or decompose, releasing environmental pollutants. Types of material include wood and wood products; paper; plasterboard; ash; concrete; plastic; leather; rubber; textiles; cardboard; vegetable matter; food processing wastes; sewage sludge; metals and chemical combinations thereof; coke; coal; mica; diatomaceous earth; slag; boiler scale; soap, cellulose, floor sweepings; sacks; electrical fittings and appliances; machinery; cosmetic products; tarred materials; carbon; ebonite; pottery; china; enamels; abrasives; trees; bushes; grass; flowers and other vegetation.
Demolition Waste (Also see Construction Waste)	Masonry and rubble wastes arising from the demolition or reconstruction of buildings or other civil engineering structures.
Development Framework	A portfolio of documents. Collective term for the Development Plan Documents, the Local Development Scheme, the Statement of Community Involvement, Annual Monitoring Report, and any supplementary planning documents.
Development Plan Document (DPD)	These are the spatial planning documents (plans) required by the Local Development Framework. These set out spatial planning policies and proposals for an area or topic. They replace the former Local Plan and include the core strategy, detailed development control policies, site specific allocations of land, area action plans (where needed) and a proposals map.
E	
Energy from Waste (EfW)	The generation of heat and power from burning waste, the production of fuels from other forms of treatment, and the combustion of landfill gas and gas from anaerobic digestion to create electricity.

Environmental Impact Assessment (EiA)	The process by which the impact on the environment of a proposed development can be assessed. Certain types and scale of waste proposals will require an Environmental Impact Assessment to be carried out. The Town and Country Planning (Environmental Impact Assessment) (England Wales) Regulations 1999 and the accompanying Department of the Environment Transport and the Regions Circular 02/99 sets out the circumstances when planning applications will be required to be accompanied by an Environmental Impact Assessment (EIA). The information contained in the EIA will be taken into account when the Councils determine such proposals.
Examination in Public (EiP)	All Development Plan Documents will be subject to an independent examination before a planning inspector. The inspector's report is binding on the local authority.
Exempt Sites	Recovery operations, disposal and some waste storage activities are required to be registered with the Environment Agency but some small scale activities do not necessarily require a licence or permit. Such sites are called exempt but they may still require planning permission before they can operate. Exempt facilities are subject to general rules (e.g. on the types and quantities of wastes received).
G	
Geodiversity	Geodiversity is the variety of rocks, minerals, fossils, soils and landforms, together with the natural processes which shape the landscape.
Greenhouse Gas	Gases such as carbon dioxide and methane which when their atmospheric concentrations exceed certain levels can contribute to climate change by forming a barrier in the earth's atmosphere that traps the sun's heat.
Groundwater	Is contained within underground strata (aquifers) of various types across the country. Groundwater is usually of high quality and often requires little treatment prior to use. It is however vulnerable to contamination from pollutants. Aquifer remediation is difficult, prolonged and expensive and therefore the prevention of pollution is important.
H	
Hazardous Waste	Controlled Waste that is dangerous or difficult to treat, keep, store or dispose of, so that special provision is required for dealing with it. Hazardous wastes are the most dangerous wastes and include toxic wastes; acids; alkaline solutions; asbestos; fluorescent tubes; batteries; oil, fly ash; industrial solvents; oily sludges; pesticides; pharmaceutical compounds; photographic chemicals; waste oils; wood preservatives. If improperly handled, treated or disposed of,

	a waste that, by virtue of its composition, carries the risk of death, injury or impairment of health, to humans or animals, the pollution of waters, or could have an unacceptable environmental impact. It should be used only to describe wastes that contain sufficient of these materials to render the waste as a whole hazardous within the definition given above.
Household Waste	Waste from a domestic property, caravan, residential home or from premises forming part of a university or school or other educational establishment; premises forming part of a hospital or nursing home.
I	
Industrial Waste	Waste from any of the following premises: factory; provision of transport services (land, water and air); purpose of connection of the supply of gas, water, electricity, provision of sewerage services, provision of postal or telecommunication services.
Inert Waste	Waste which will not biodegrade or decompose (or will only do so at a very slow rate). Types of materials include uncontaminated topsoil; subsoil; clay; sand; brickwork; stone; silica; and glass.
L	
Landbank	A stock of mineral reserves with planning permission for their winning and working.
Landfill	The deposition of waste onto hollow or void space in the land, usually below the level of the surrounding land or original ground level in such a way that pollution or harm to the environment is prevented. Former mineral workings have historically been used for this purpose.
Landfill Gas	A by-product from the digestion by anaerobic bacteria (rotting) of putrescible matter present in waste deposited on landfilled sites. The gas is predominantly methane together with carbon dioxide and trace concentrations of a range of other vapours and gases.
Local Development Scheme (LDS)	The timetable for the preparation of the Local Development Framework plans, which is agreed with the Government Office for the South East (GOSE).
Low Level (Radioactive) Waste (LLW)	One of three broad categories of radioactive waste which reflect the degree of radioactivity and hazard. LLW does not normally require shielding during handling or transport. It consists largely of paper, plastics and scrap metal items that have been used in hospitals, research establishments and the nuclear industry.
M	

Materials Recovery Facility (MRF)	A building where waste can be taken in bulk for separation, recycling or recovery of waste materials. This is usually municipal waste, but some sites take commercial and industrial waste. Some may also take construction and demolition waste to be crushed and screened.
Methane	A colourless, odourless, flammable gas, formed during the decomposition of biodegradable waste.
Mineral Consultation Area (MCA)	An area identified in order to ensure consultation between the relevant LPA and the Mineral Planning Authority before certain non-mineral planning applications made within the area are determined.
Mineral Safeguarded Area (MSA)	MSAs are known areas of mineral resources that are of sufficient economic value to warrant protection for generations to come. There is no presumption that any areas within a MSA will ultimately be environmentally acceptable for mineral extraction. The purpose of MSAs is not to automatically preclude other forms of development, but to make sure that mineral reserves are considered in land-use planning decisions.
Municipal Solid Waste (MSW)	Municipal solid waste is that waste which is collected and disposed of by or on behalf of a local authority. It will generally consist of household waste, some commercial waste and waste taken to civic amenity waste collection/disposal sites by the general public. In addition, it may include road and pavement sweepings, gully emptying wastes, and some construction and demolition waste arising from local authority activities. It is typically made up of card, paper, plastic, glass, kitchen and garden waste.
P	
Permitted Reserves	Saleable minerals in the ground with planning permission for winning and working. Usually expressed in million tonnes.
Planning Conditions	Conditions attached to a planning permission for the purpose of regulating and controlling the development.
Primary Aggregates	Naturally occurring sand, gravel and crushed rock used for construction purposes.
Putrescible Waste	Waste readily able to be decomposed by bacterial action. Landfill gas and leachate can occur as by-products of decomposition.
Pyrolisis / Gasification	Both systems involve heating the waste in varying amounts of oxygen to produce a gas. Neither system is yet as energy efficient as incineration; there is more residual waste left over which has to be burned or landfilled. The technology is not yet well established for waste management and is more widely used in industry.

R	
Ramsar Sites	Sites of international importance to birds which inhabit wetlands. Ramsar is the name of the place where the Wetlands Convention was signed.
Reclamation of Mineral Workings	The combined processes of Restoration and Aftercare following completion of mineral working.
Recovery	The collection, reclamation and separation of materials from the waste stream.
Recovery Facilities	A facility that recovers value, such as resources and energy, from waste prior to disposal, includes recycling, thermal treatment, biological treatment and composting facilities.
Recycled Aggregates	Aggregates produced from recycled construction waste such as crushed concrete, planings from road surfacing etc.
Recycling	The collection and separation of materials from waste and subsequent processing to produce new marketable products.
Reduction	Use of technology requiring less waste generation from production, or Production of longer lasting products with lower pollution potential, or Removing material from the waste stream, e.g. Paper being taken straight from a waste producer to a paper re-processing facility, avoiding it being handled at any waste management operation.
Reserve	The remaining concentration or occurrence of workable material of intrinsic economic interest. See landbank. Generally used for those economic mineral deposits that have the nbenefit of planning permission.
Resource	A concentration or occurrence of material of intrinsic economic interest in or on the Earth's crust in such a form, quality and quantity that they are reasonable prospects for eventual economic extraction.
Regional Self-Sufficiency	A key aim of sustainable waste management is regional self-sufficiency in waste disposal, ie the waste generated within the region can be disposed or managed within the same region.

Regionally Important Geological Sites (RIGS)	These are any geological or geomophological sites, excluding SSSIs, that are considered worthy of protection for their educational, research, historical or aesthetic importance. RIGS are broadly analogous to non-statutory wildlife sites and are often referred to locally by the same name. They can include important teaching sites, wildlife trust reserves, Local Nature Reserves and a wide range of other sites. RIGS are not regarded as inferior to SSSIs but as sites of regional importance in their own right. The strategy for selecting and conserving Regionally Important Geological/Geomorphological sites involves the setting up of a local RIGS group.
Residual Waste	The elements of the waste streams that remain following recovery, recycling or composting operations.
Resource Recovery	The extraction of useful materials or energy from solid waste.
Restoration	Operations designed to return an area to an acceptable environmental state, whether for the resumption of the former land use or for a new use following mineral working. Involves the reinstatement of land by contouring, the spreading of soils or soil making materials etc.
Reuse	Reuse of waste is encouraged by the Government's National Waste Policy requirements. Can occur within a company, or by moving waste for reuse elsewhere.
S	
Safeguarding	Protecting sites that have potential for relevant development (waste and minerals) from other development.
Sharp Sand and Gravel	Naturally occurring mineral deposit in Kent. Once extracted is is mainly used in the production of concrete products.
Saved Policy	Retaining a Local Plan (or policies from it) until replacement by a DPD (Development Plan Document). Normally lasts for three years only, but "extended saving" can occur if policies need to stay in place for a longer period.
Scheduled Ancient Monument (SAM)	Nationally important monuments and archaeological areas that are protected under the Ancient Monuments and Archaeological Areas Act .
Secondary Aggregates	Construction Materials that are produced as by-products of other processes and used instead of primary aggregates. Secondary aggregates include boiler ashes, colliery shale, burned clay, pulverised fuel ash, chalk and shale.

Silica Sand (Industrial Sand)	Material exacted and used in industrial processes including glass manufacture and the production of foundry castings. It is also used in horticulture and for sports surfaces including horse menages and golf course bunker sand. It is also known as 'industrial sand'.
Sites of Special Scientific Interest (SSSIs)	These sites are notified under Section 28 of the Wildlife and Countryside Act 1981 by English Nature whose responsibility is to protect these areas. These are important areas for nature conservation i.e. valuable flora, fauna or geological strata. English Nature needs to be notified of planning proposals in or adjacent to the designated areas. National Nature Reserves (NNRs), terrestrial RAMSAR sites, Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) are also SSSIs under national legislation.
Site (Specific) Allocations	Sites which are generally well defined and where there is an implied presumption in favour of their being developed during the plan period
Specific Sites	Specific Sites are generally where viable mineral resources are known to exist, where landowners are supportive of mineral development taking place and where Mineral Planning Authorities consider that planning applications are likely to be acceptable in planning terms.
Statement of Community Involvement (SCI)	A document that sets out how the Authority is to ensure suitable sufficient consultation occurs for different elements of the planning process. This is a requirement brought in by the Planning and Compulsory Purchase Act 2004.
Sterilisation	When a change of use or the development of land on or near a minerals or waste facility prevents possible mineral extraction or continued use of a wharf, railhead or other facility in the foreseeable future.
Strategic Environmental Assessment	An evaluation process for assessing the environmental impacts of plans and programmes. This is a statutory requirement of the M&WDF system.
Submission	A stage of the Development Plan Document preparation process where the document is 'submitted' to the Secretary of State for independent examination by a planning inspector. The document is published for public consultation prior to submission.
Sustainability Appraisal (SA)	An evaluation process for assessing the environmental, social, economic and other sustainability effects of plans and programmes. This is a statutory requirement.

Sustainable Development	A widely quoted definition is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. The definition also encompasses the efficient use of natural resources.
T	
Transfer Stations	Facilities which receive waste (normally from a local area), where the waste is bulked up and transported further afield in larger lorries (or in some cities by barges) for disposal or recovery. Some transfer stations sort out the recoverable wastes, such as construction waste and scrap metal prior to onward transportation for disposal or processing.
V	
Very Low Level (Radioactive) Waste (VLLW)	One of four broad categories of radioactive waste which reflect the degree of radioactivity and hazard. The radioactive concentration of very low level waste is similar to the natural activity of soils and is well within the normal range of natural radioactivity in the Earth's crust.
Void (space)	The hole (volume) created by mineral working which may have potential for landfilling with waste.
W	
Waste	The Town and Country Planning Act 1990 has been amended so there is no dispute over whether 'waste', in terms of the planning regime, is defined in accordance with European law. It states that: "Waste" includes anything that is waste for the purposes of Directive 2006/12/EC of the European Parliament and of the Council on waste, and that is not excluded from the scope of that Directive by Article 2(1) of that Directive." Waste is therefore defined as any substance or object which the holder or the possessor either discards or intends or is required to discard. **(81)**
Waste Arisings	The amount of waste generated in a given locality over a given period of time.

81 This definition is inserted into s.336(1) of the TCPA 1990, as part of the consequential amendments made by the Environmental Permitting (England and Wales) Regulations 2007 SI 2007/3528 (the "EPR 2007"), as from 6 April 2008. See Schedule 21, para 19 of the EPR 2007 (and its commencement - see reg.1).

Waste Collection Authority (WCA)	A local authority with a statutory responsibility to provide a waste collection service to each household in its area, and on request, to local businesses.
Waste Disposal Authority (WDA)	A local authority that is legally responsible for the safe disposal of household waste collected by the WCAs and the provision of Household Waste and Recycling Sites.Long-term contracts are let to private sector companies who provide the facilities to handle this waste. These contracts are awarded on the basis of detailed cost and environmental criteria as well specific targets for recycling and reducing landfill.
Waste Planning Authority (WPA)	A Local Authority with responsibility for waste planning, including the determination of waste related planning applications. In areas with two tiers of local government (counties and districts), the County Councils are the WPAs. National Parks are also WPAs. Unitary Authorities, such as Medway Council, deal with waste planning and all other planning issues within their areas.
Waste Hierarchy	Suggests that the most effective environmental solution may often be to reduce the amount of waste generated – reduction; where further reduction is not practicable, products and materials can sometimes be used again, either for the same or a different purpose – preparing for re-use; failing that, value should be recovered from waste, through recycling, composting or energy recovery from waste; only if none of the above offer an appropriate solution should waste be disposed.
Waste Management Unit (WMU)	Kent Council County department which manages all aspects of Municipal Solid Waste (household waste) arisings in Kent.
Waste Minimisation	The reduction of unwanted outputs from the manufacturing process and the manufacture of products that are likely to result in less waste when they are used.
Waste Management Permit	Permit granted by the Environment Agency authorising treatment, keeping or disposal of any specified description of controlled waste in or on specified land by means of specified plant.
Waste Reduction	To make waste production and waste management practices more sustainable, key objectives are to reduce the amount of waste that is produced, make the best use of waste produced and choose practices which minimise the risks of pollution and harm to human health. Waste reduction is concerned with reducing the quantity of solid waste that is produced and reducing the degree of hazard represented by such waste.

Waste Electrical and Electronic Equipment (WEEE)	Discarded electrical or electronic equipment, including all components, subassemblies and consumables which are part of the product at the time of discarding.
Wastewater	This refers to urban wastewater, including domestic, industrial and surface run off. This raw waste water is processed through treatment plants to produce treated effluent and sewage sludge.

Appendix B: The Links Between Our Vision, Objectives and Policies

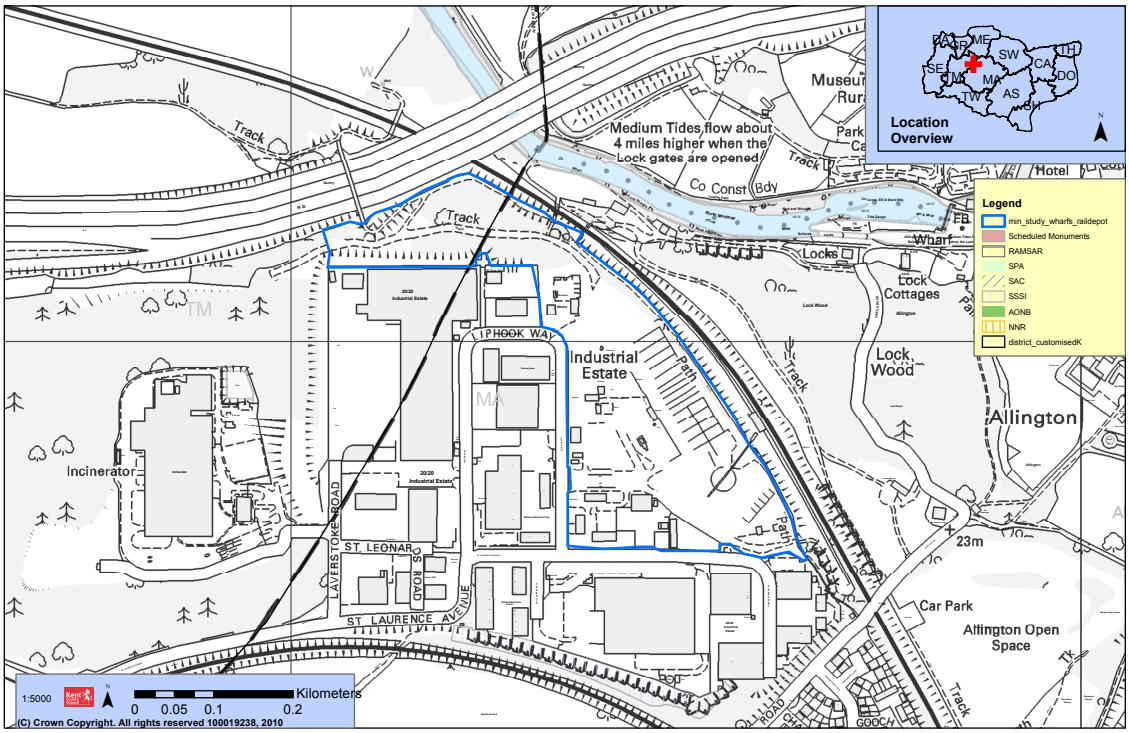
Appendix C: Safeguarded Wharves and Rail Importation Facilities

Sites in Kent 2010 (excludes Medway)

Table 12

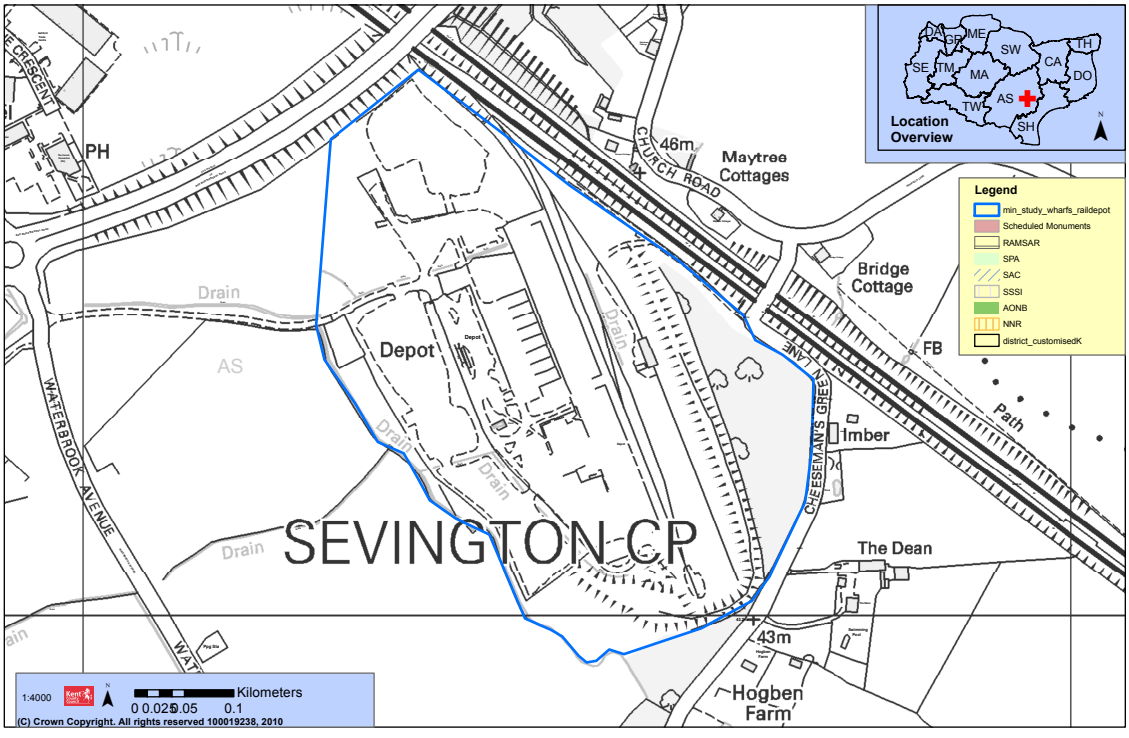
Site Name	Operator	Site Code
Allington	Hanson	A
Sevington Rail Depot	Brett	B
Hothfield Works	Tarmac	C
East Peckham	Clubb	D
Ridham Dock	Brett & Tarmac	E
Johnsons Wharf	Lafarge	F
Robins Wharf, Northfleet	Aggregate Industries & Brett	G
Denton Wharf	Clubb	H
East Quay, Whitstable	Brett	J
Red Lion Wharf	Stema	K
Ramsgate New Port	Brett	L
Bevans Wharf	Lafarge	M
Dunkirk Jetty, Dover Western Docks	Brett	N
Northfleet Wharf	Lafarge	O
Sheerness	Aggregate Industries	P
Botany Marshes	Cemex	U

Site A: Allington



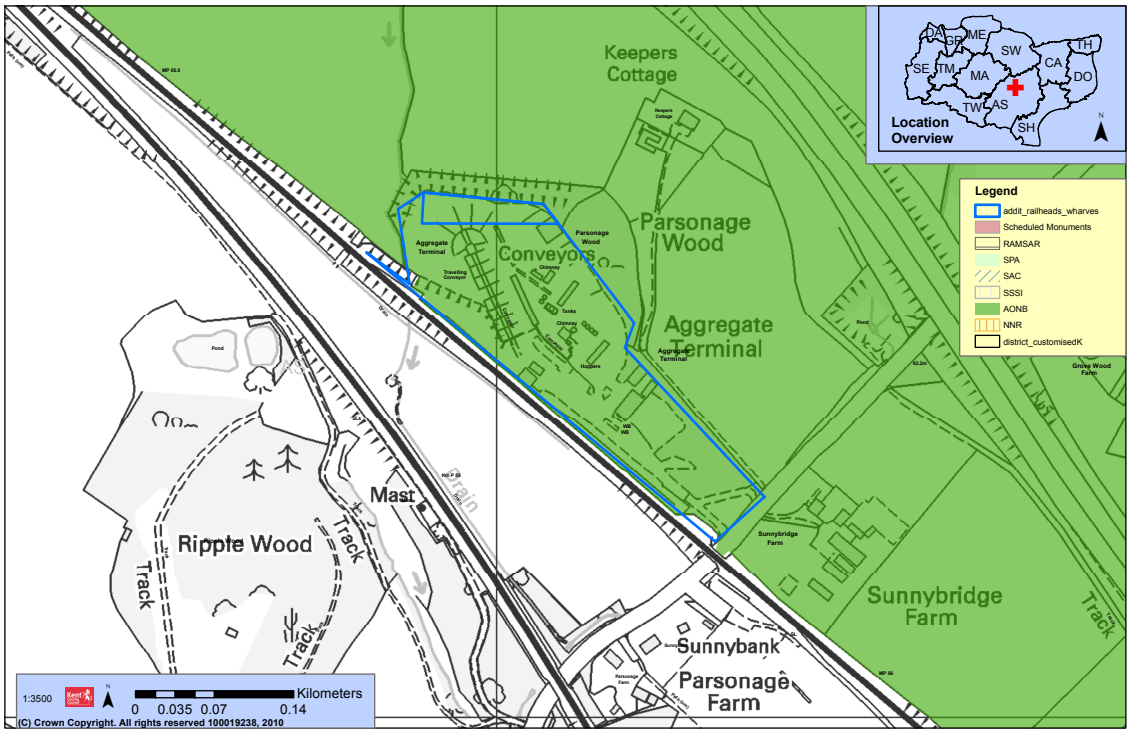
Allington

Site B: Sevington Rail Depot



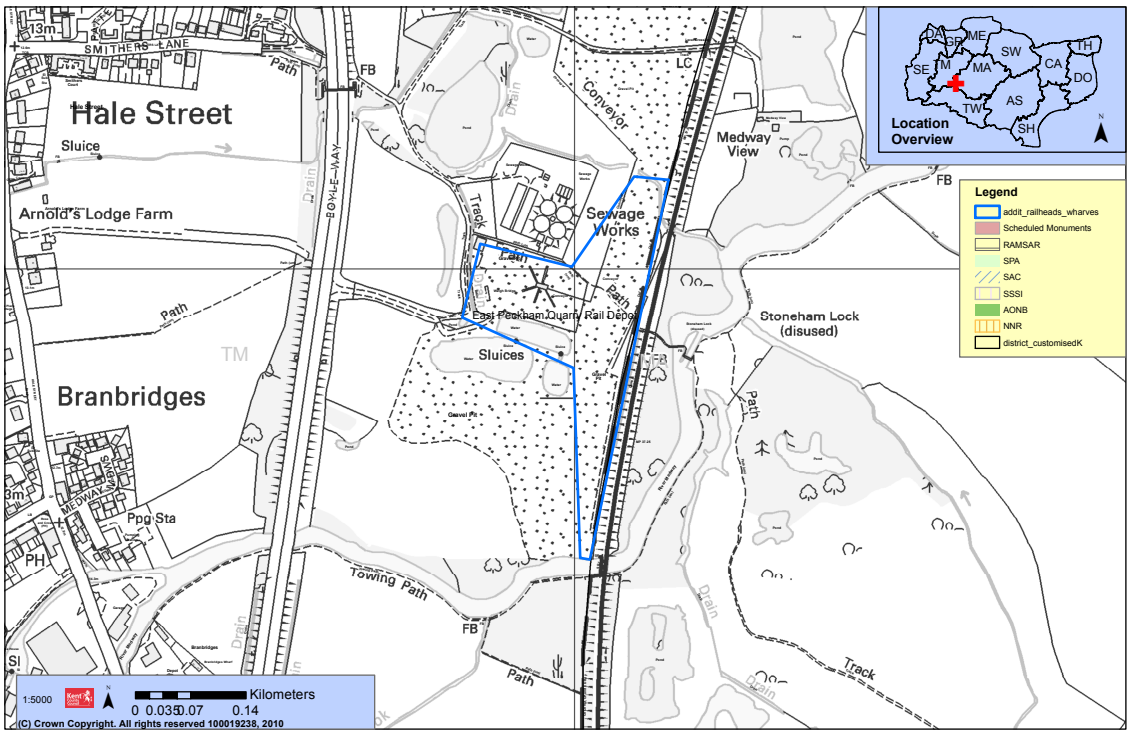
Sevington

Site C: Hothfield Works



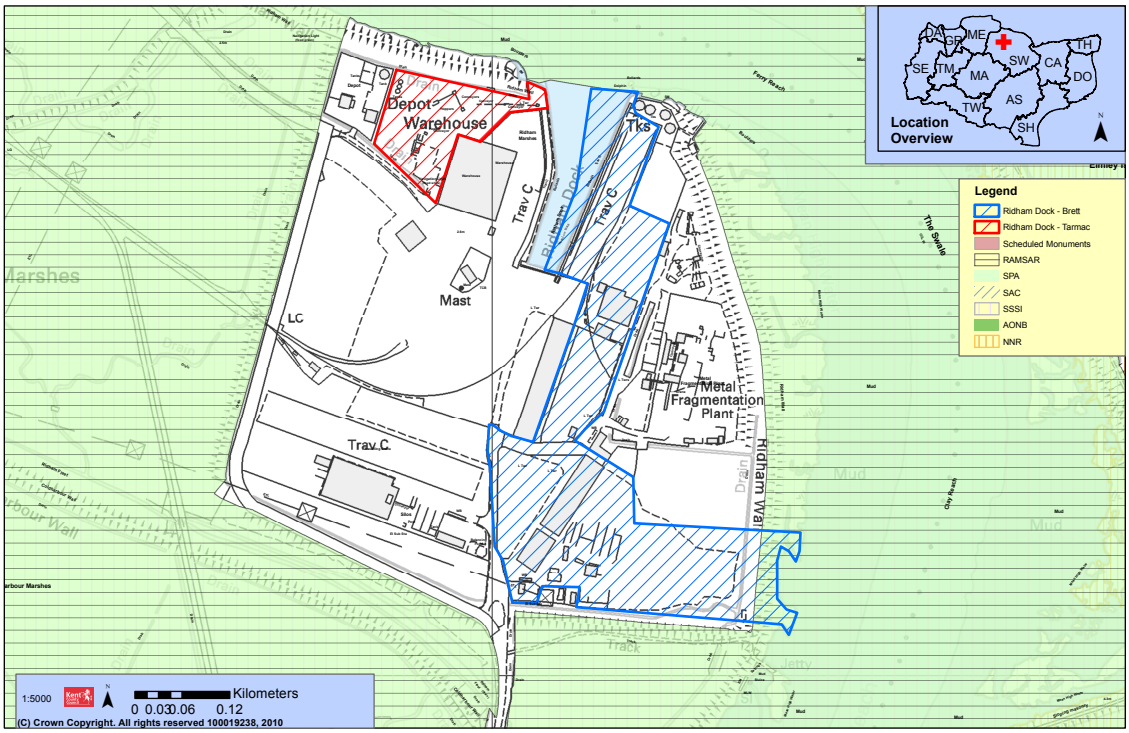
Hothfield Railhead

Site D: East Peckham



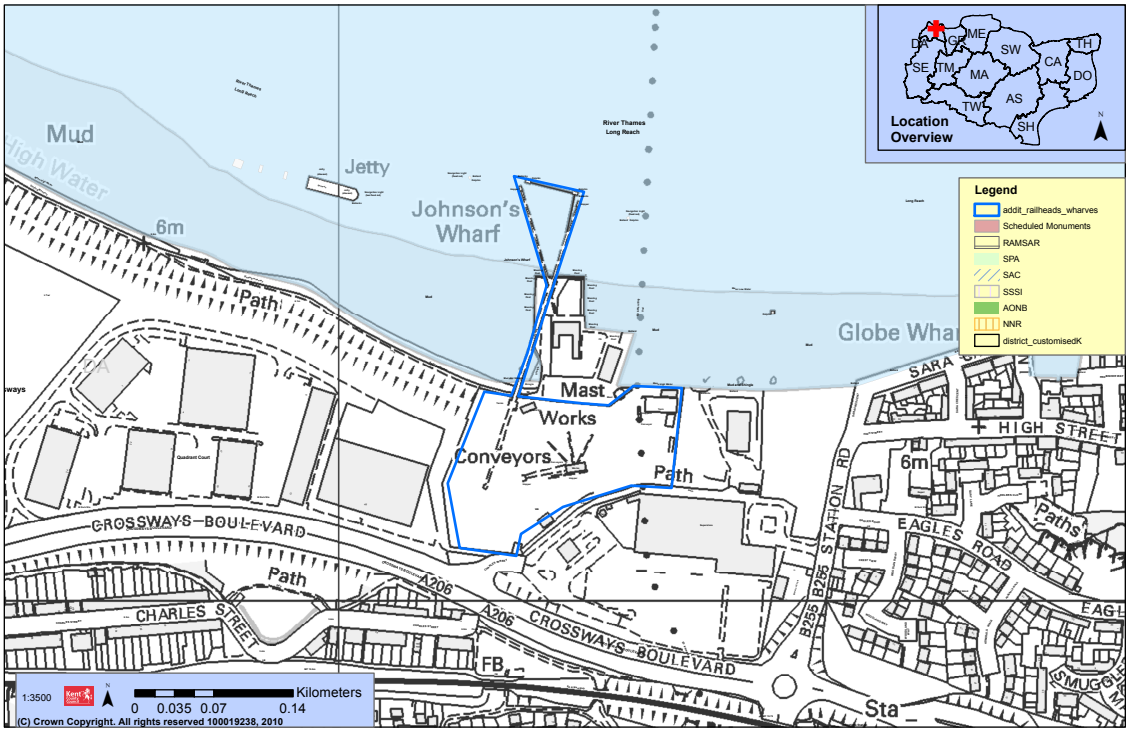
East Peckham Quarry Rail Depot

Site E: Ridham Dock



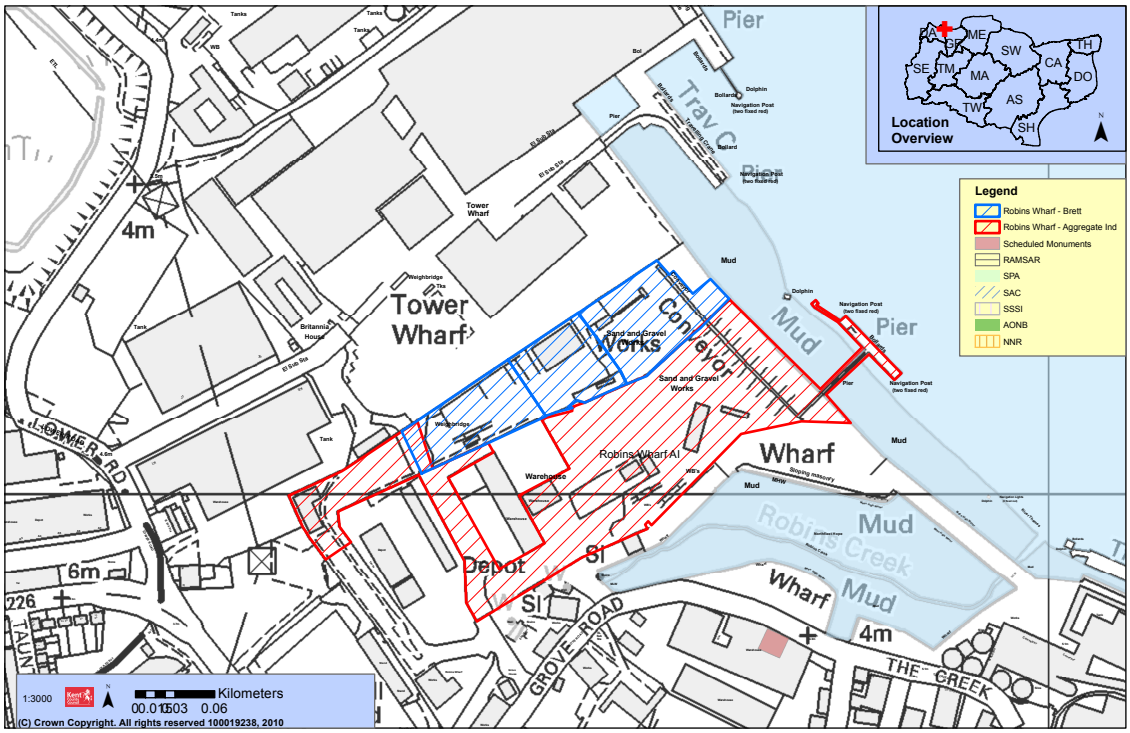
Ridham Dock

Site F: Johnsons Wharf



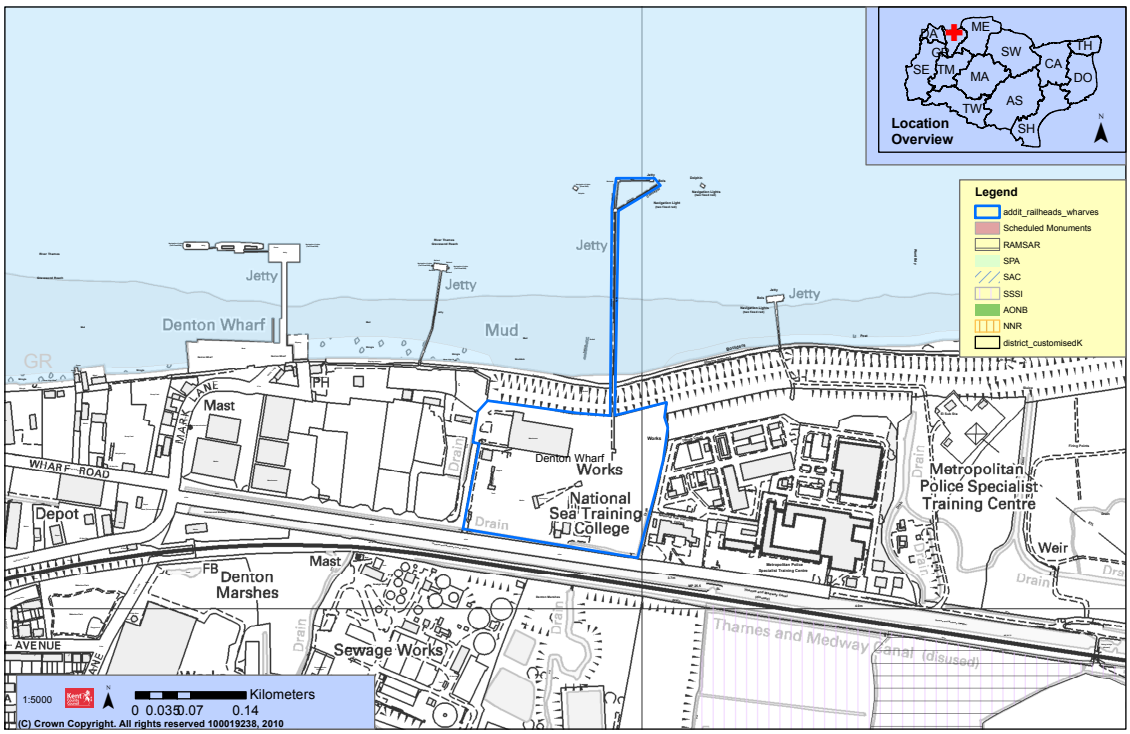
Johnsons Wharf, Greenhithe

Site G: Robin's Wharf, Northfleet



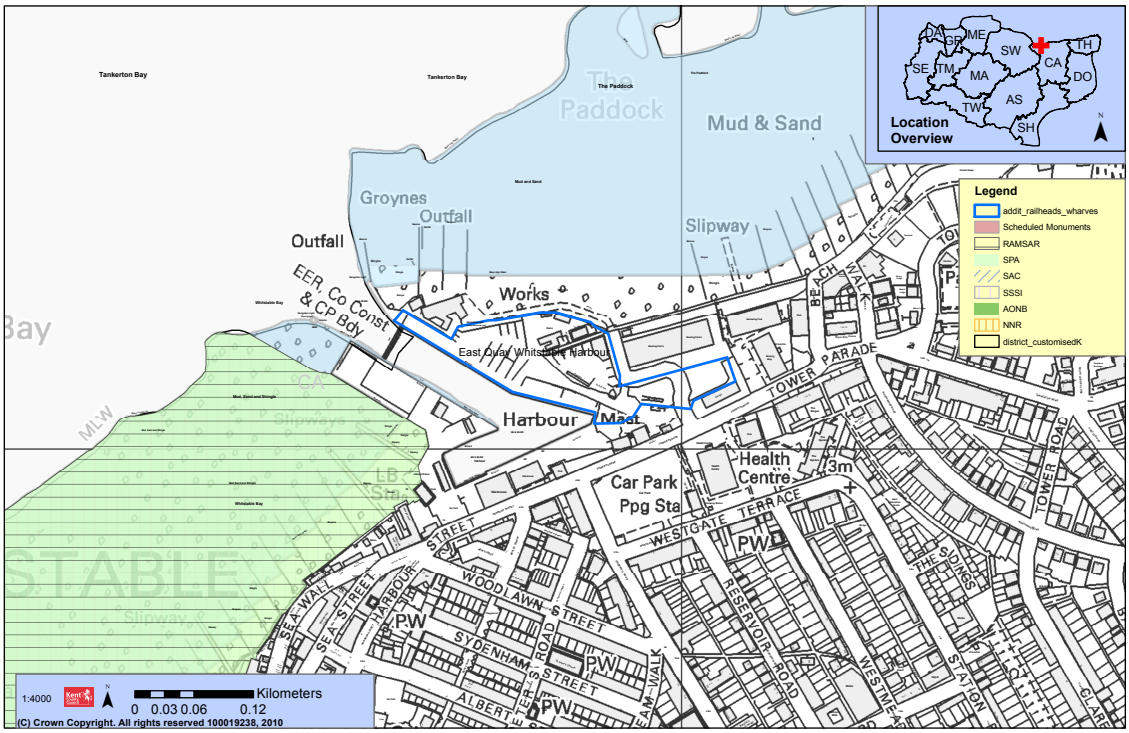
Robins Wharf

Site H: Denton Wharf



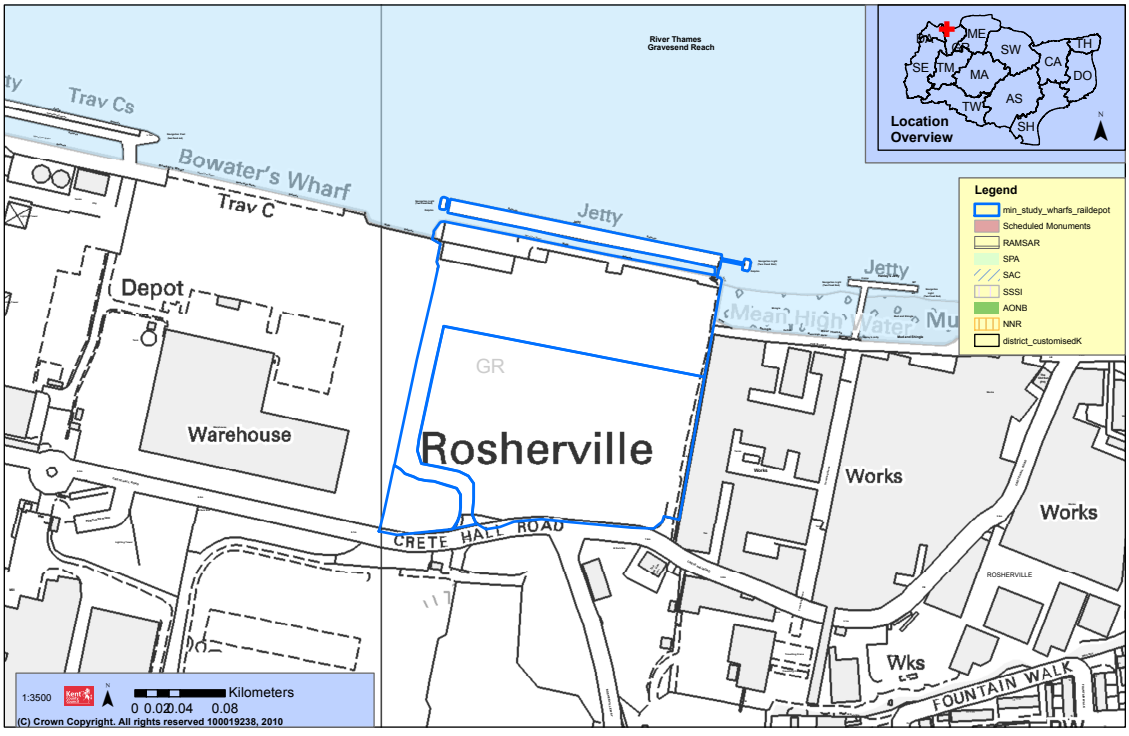
Denton Wharf

Site J: East Quay, Whitstable



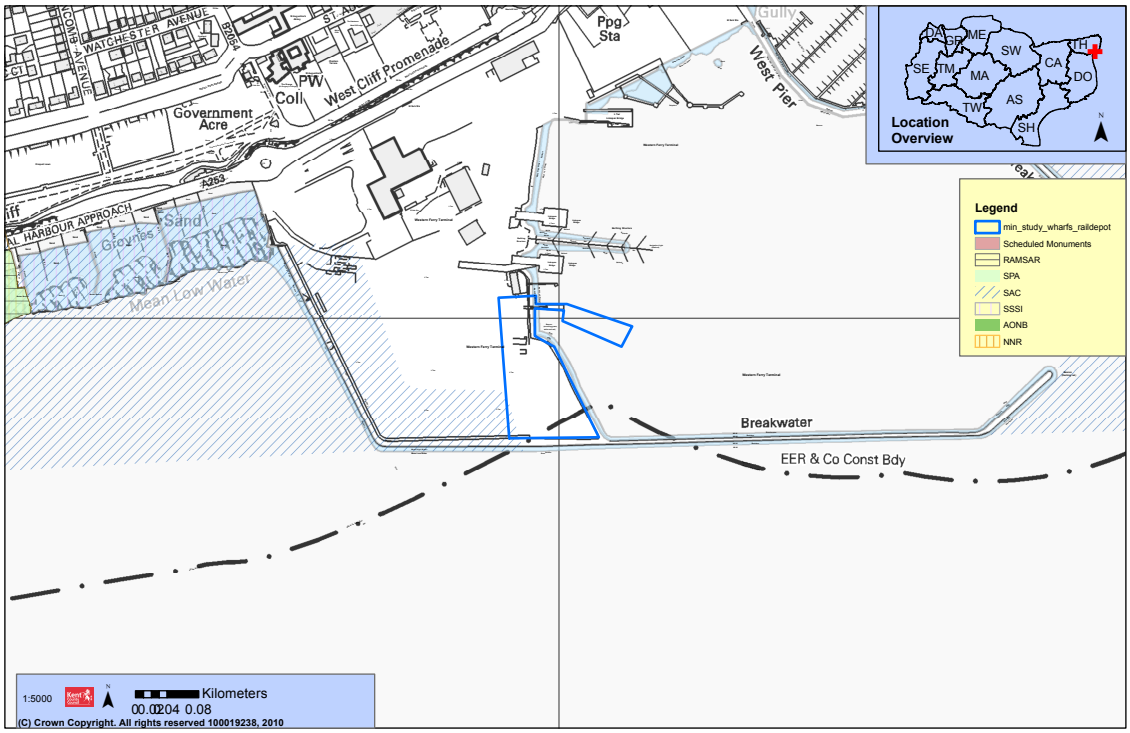
East Quay, Whistable Harbour

Site K: Red Lion Wharf



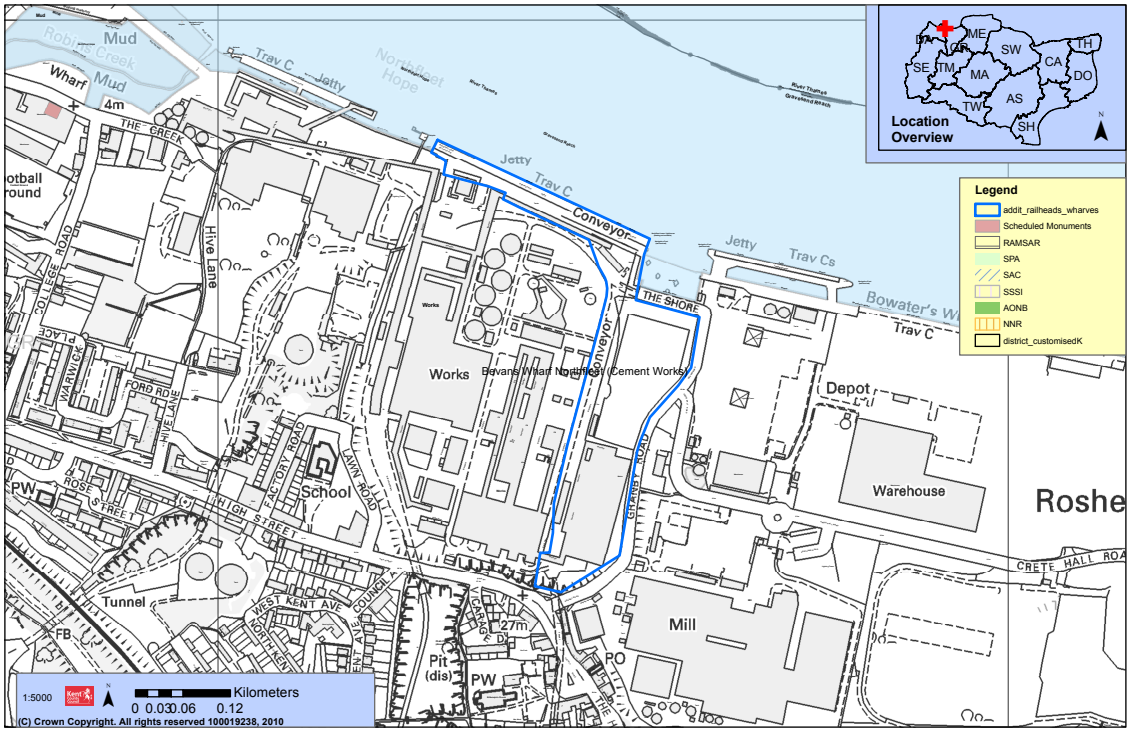
Red Lion Wharf

Site L: Ramsgate Harbour



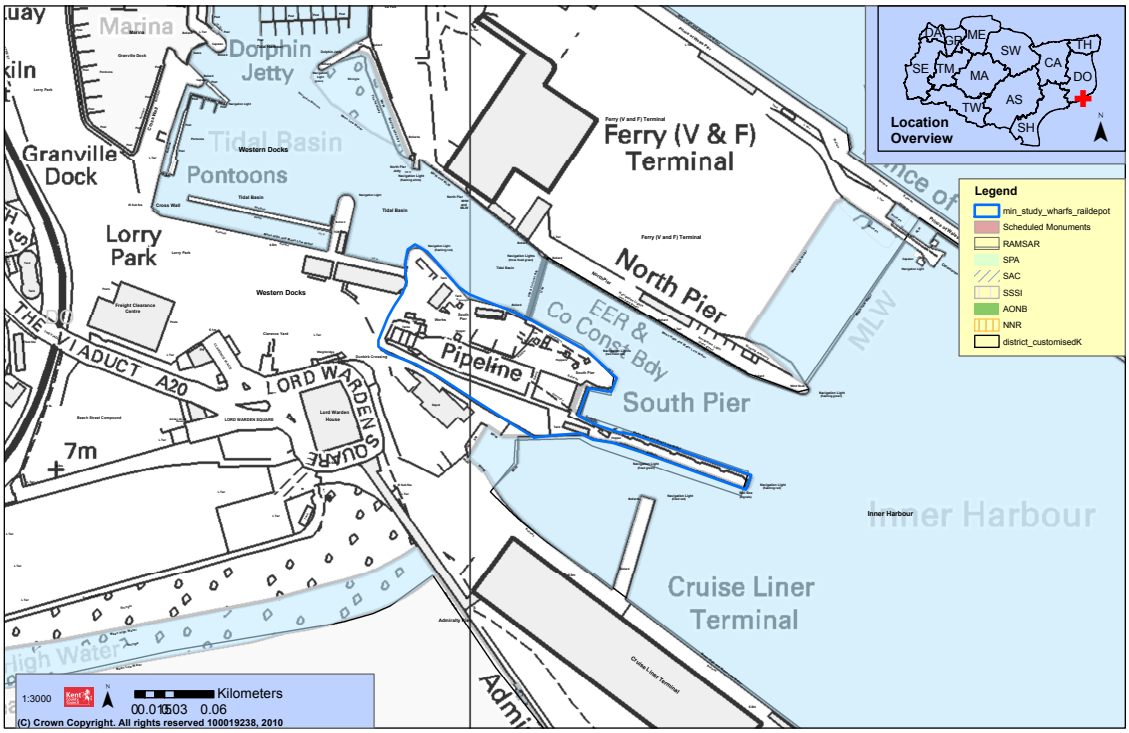
Ramsgate Harbour

Site M: Bevans Wharf



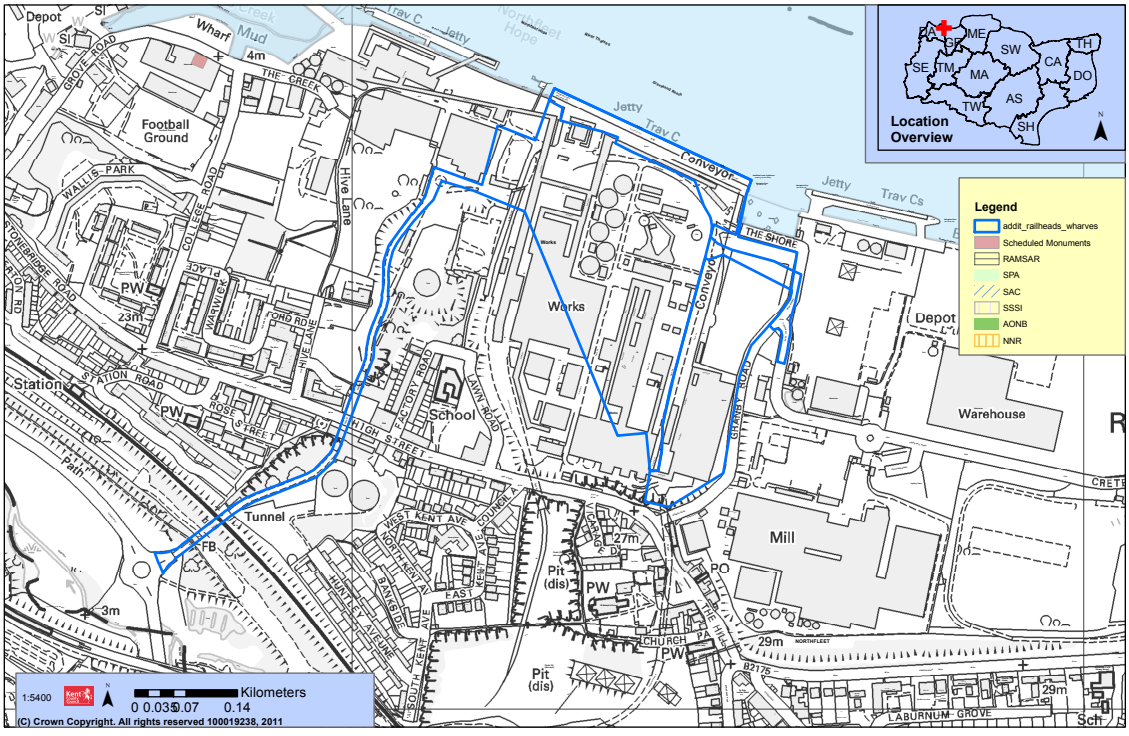
Bevans Wharf, Northfleet

Site N: Dunkirk Jetty, Dover Western Docks



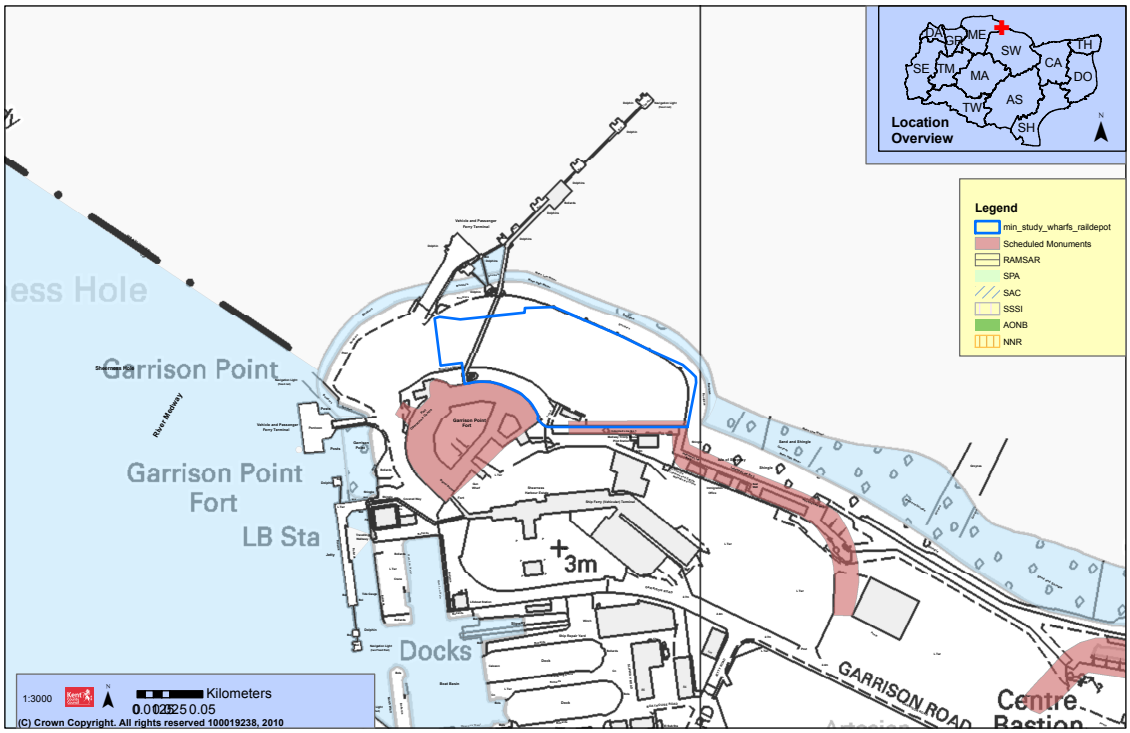
Western Docks, Dover

Site O: Northfleet Wharf



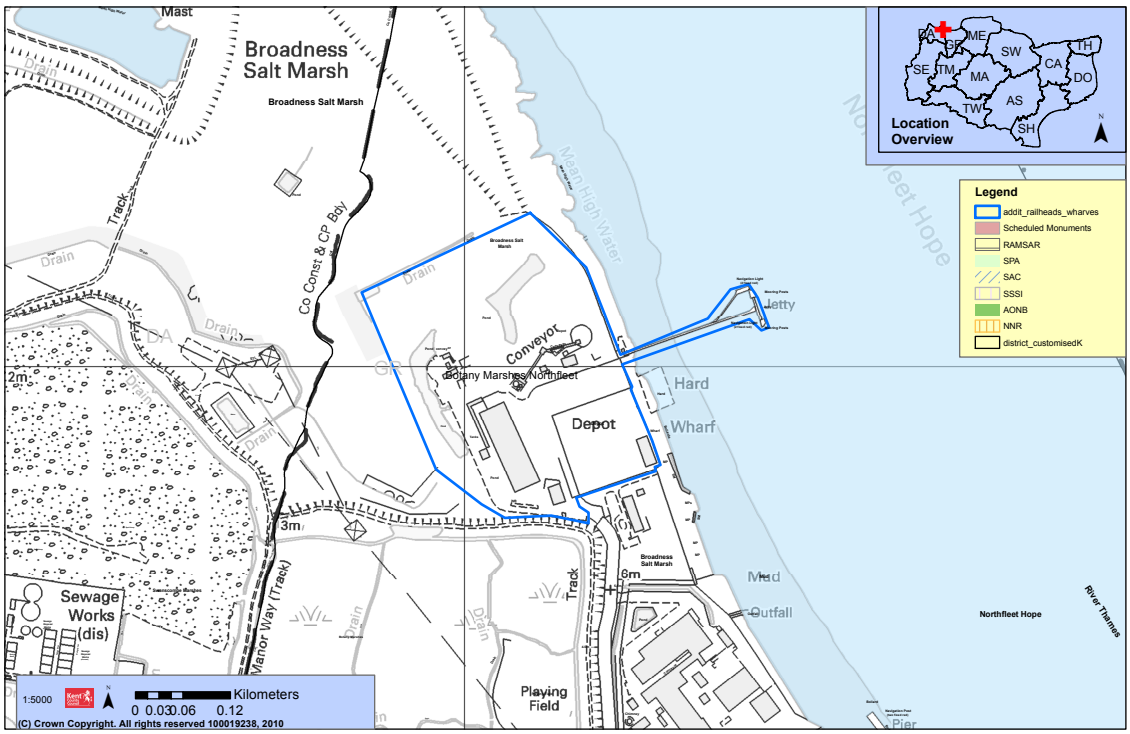
Bulk Aggregates Import Wharf Northfleet

Site P: Sheerness



Sheerness

Site U: Botany Marshes



Botany Marshes, Northfleet

Appendix D: List of Existing Mineral Sites in Kent Subject to Periodic Review

The list represents the current situation regarding the review dates for the periodic review of mineral sites (ROMP dates) in Kent. This is a statutory requirement to review and update the planning permission conditions – in particular those in relation to restoration requirements.

It is possible that some of the dates may be put back as a result of S73 permissions that may have been granted in relation to these sites.

The dates should all be 15 years from the most recent permission relating to each site unless a postponement date that is later than this has been agreed.

The list of dormant sites is also liable to change.

If further clarification is required on the review dates for any of these sites, or to ascertain whether there has been any change to the review dates for particular sites, we recommend contacting the Planning Applications Group:

Planning Applications Group
1st floor, Invicta House
County Hall
Maidstone
Kent ME14 1XX

01622 221070
planning.applications@kent.gov.uk

The three sites in the yellow box are ROMP applications currently being processed or those which are on 'hold.'

Newington Sandpit, Folkestone	01.06.98
West Hythe Ballast Pit, Hythe	30.04.01
Sevenoaks Quarry (Tarmac)	31.12.07
Ightham Sandpit, Borough Green	20.05.12
Winterbourne Wood East, Hickman's Green	24.10.12
Winterbourne Wood West, Hickman's Green	24.10.12
Blaise Farm, Offham	11.08.13
Beacon Hill, Charing	25.02.13
Deanery Farm, Chartham	04.06.13

Nepicar Farm, Platt	13.10.14
Darenth Court Quarry, Brooklands	26.10.14
Darenth Road Chalk Pit, Brooklands	26.10.14
Hegdale Quarry, Challock	28.03.15
Denge & New Romney Pits, Lydd-on-Sea	21.12.15
Squerrys Sandpit, Westerham	24.04.15
Swan Street, Charing	03.07.16
Faversham Quarry, Oare	11.07.16
Bramling Limeworks, Bekesbourne	13.11.16
Crundale Limeworks, Wye	13.11.16
Holborough, Snodland	25.11.2016
Stonecastle Farm, Whetsted	23.09.17
Trenley Park Wood, Fordwich	29.11.17
Aylesford Sandpit, Aylesford	17.01.17
Hammill Brickworks, Woodnesborough	15.07.18
Park Farm, Wrotham	03.03.18
East Peckham Quarry, Hale Street,	23.02.20
Hermitage Quarry, Ditton	08.12.20
Highsted Quarry, Chislet	31.03.21
Rowling Chalk Pit, Woodnesborough	12.07.22
Babylon Tile Works, Hawkenbury	25.01.22
Allens Bank, Lydd	23.11.22
Conningbrook Quarry, Willesborough	17.09.23
Pinden Quarry, Longfield	27.03.23
Scotney Court Quarry, Lydd	31.03.23
Pluckley Brickworks, Chambers Green	29.04.24
Shepherds Farm, Lenham	18.02.25

Dormant Sites	
Staplehurst Brickworks, Staplehurst	
Brabourne Limeworks	
Maltmans Hill, Smarden	
Naccolt Brickworks, Wye	
Handen Quarry, Aldington	
Furfield Quarry Bo Monchelsea	
Torry Hill, Wichling	
Folkestone Foreshore, Folkestone	
Libbetwell North, Newington	
Paddlesworth Clay Pit, Snodland	
Addington Sandpit, Addington	
Frittenden Brickworks, Dig Dog Lane, Frittenden	
Chiddingstone Brickworks, Leigh	
London Road, Riverhead	
Stubble Hill, Harrietsham	
Otterham Brickworks, Otterham Quay	

Appendix E: Kent MWDF Sustainability Appraisal Objectives

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.
Ensure that development will not impact on important elements of the biodiversity resource and where possible contributes to the achievement of the Kent Biodiversity Action Plan 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.
Protect and enhance Kent's countryside and historic environment.	Protect the integrity of the AONBs 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.
	Protect important heritage assets and their settings, as well as take account of the value of the character of the wider historic environment.
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.
	Avoid pollution of ground or surface waters, particularly in areas identified as being at risk or sensitive.
Address the causes of climate change through reducing emissions of greenhouse gases through energy efficiency and energy generated from renewable sources.	Recover energy from waste where possible.
	Promote sustainable design and construction of facilities and support wider efforts to reduce the carbon footprint of minerals and waste operations.

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, 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.
	Ensure that minerals and waste development does not contribute to poor air quality.
Plan for the correct waste management facilities, in the right place at the right time.	Put in place the facilities and infrastructure that will support integrated waste management and move waste management up the waste hierarchy.
	Minimise potential negative effects associated with waste management facilities.
	Support self sufficiency where possible.
Make efficient use of land and avoid sensitive.	Make best use of previously developed land locations.
	Avoid locations with sensitive geomorphology.
Help to tackle more hidden forms of deprivation and exclusion, such as that which is experienced by residents of rural areas and particular socio-economic groups within communities.	Help to redress spatial inequalities highlighted by the Index of Multiple deprivation and other indicators.
	Support efforts to create and sustain sustainable communities, particularly the improvement of health and wellbeing.
	Take account of locally specific issues associated with rurality.
Support the delivery of housing targets.	Ensure that minerals and waste development does not act as a constraint to housing.
	Ensure that the necessary aggregates are available for building, and that the necessary waste infrastructure is in place.
Support economic growth and diversification with higher value, lower impact activities.	Support the development of a dynamic, diverse and knowledge-based economy that excels in innovation.

	Stimulate economic revival and targeted employment generation in deprived areas.

Appendix F: Key Proposals Diagram

Produced by:

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