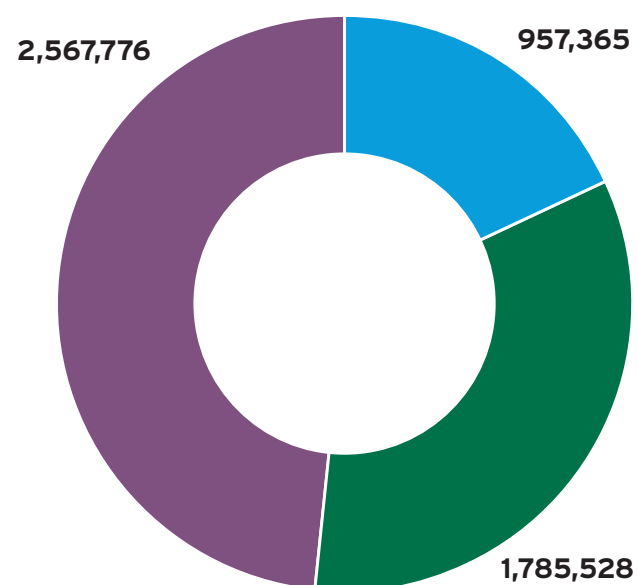


Chapter 10: Managing Our Waste and Mineral Resources

Waste managed in Kent and Medway 2000/2001 (Tonnes)



- C&I (Commercial and Industrial Waste)
- C&D (Construction and Demolition Waste)
- MSW (Municipal Solid Waste)

[Source: South East Regional Waste Management Statement Final Report, SERTAB, June 2003

10.1 The people and businesses of Kent and Medway produce major volumes of waste. Unless adequately managed and treated, it can have the potential to cause significant environmental and health problems. On the other hand it has potential value as a resource if it can be re-used or recycled. Long term provision needs to be made to manage waste in an efficient and environmentally sound manner. Measures must also be taken to counter the trend of year on year increases in the amount of waste generated.

10.2 National strategy and guidance seeks a more integrated approach to waste management. This is driven by European Union regulations - particularly the Landfill Directive¹⁹ which aim to prevent, or reduce as far as possible, the negative effects both on the environment and on human health of sending waste to landfill. Other key influences include National and Regional Planning Policy Guidance and Kent and Medway Councils' own Waste Strategies.

Key Waste Management Issues

- Household waste has grown since April 1998 at an annual average rate of 4.5%.
- In 2001/2, each household in Kent produced an average of 1.3 tonnes of waste.
- Volumes of waste are likely to increase, at least in the short to medium term because of population growth, the increase in the number of one person households and growth in the economy.
- The number of homes in Kent is due to increase by 18% (116,100) over the next 20 years.
- The 25.2 million tonnes of waste arising in the South East in 2000/2001 is projected to rise to nearly 35 million tonnes by 2025 (an increase of almost 40%)
- There are reduced opportunities for landfill.
- Environmental impacts of waste disposal.
- Kent has traditionally taken waste from neighbouring areas and exported to others.
- Kent currently recycles or composts around 20% of household waste. The National Waste Strategy seeks to increase this rate to 33% by 2015.

¹⁹ 1999/31/EC

Kent & Medway Structure Plan

Regional Waste Management Strategy (2003)²⁰

One of the most significant issues facing the South East is the growing amount of waste produced and how to manage it now and in the future. Historically waste has grown as the economy and consumption has grown. We have become a throwaway society, discarding materials with little thought for the environmental impact or the waste of valuable resources. This must change.

At present in the south East approximately 50% of all waste is recovered. The draft Regional Waste Management Strategy puts forward a range of options for increasing this rate to 77% - 86% by 2025.

The majority of existing waste management capacity in the South East is landfill which is expected to decline over time as sites are filled. Existing recycling, composting and energy from waste facilities provide only a small proportion of overall capacity at the present time. Increasing the diversion of waste from landfill to recovery will require rapid and large scale provision of additional recovery facilities.

Land use planning can contribute only some of the change in practice and behaviour required. It will need to be complimented by other initiatives for example to develop markets for recycled goods.

The Structure Plan Strategy for Waste aims to:

- Promote an integrated approach to waste management
- Provide for the necessary facilities to manage Kent's waste in a sustainable way
- Reduce the overall amount of waste produced
- Allow some flexibility to cope with variations in the pace of waste reduction.
- Promote the best practical environmental options when disposing of waste.
- Promote the reuse, recycling and recovery of waste.

Integrated Waste Management

10.3 The application of BPEO is essential if Kent and Medway are to achieve a sustainable pattern of waste management.

'Best Practicable Environmental Option' (BPEO)

seeks to ensure that waste is dealt with in a way that considers environmental impacts alongside social and economic considerations and represent the most efficient and environmentally sound method. In particular, proposals will be expected to show that they accord with the following principles:

- The Waste Hierarchy;
- The Proximity Principle; and
- Self-Sufficiency.

The Waste Hierarchy

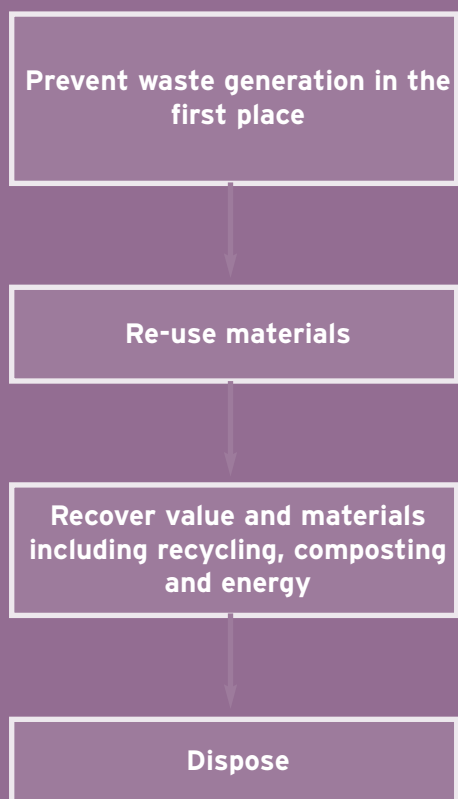
10.4 The waste hierarchy set out in the National Waste Strategy seeks to promote an integrated approach to waste management. It reflects the fact that the best option for dealing with waste is to reduce the amount created, followed by re-use and then recovery which includes recycling, composting and energy from waste. Only when these options have been exhausted should waste be disposed of to landfill. The appropriate waste management option will vary according to the type of waste in question and local considerations. The aim is to move up the hierarchy to ensure better environmental protection and meet statutory targets. A significant increase in the number of facilities for materials recycling, composting, thermal treatment and landfill will be required to comply with the waste hierarchy and national targets.

The Proximity Principle

10.5 This requires waste to be disposed of as close as possible to where it was created and reflects the fact that transporting waste itself has an environmental impact of its own. Types of waste that require specialist management facilities may justify transportation over longer distances if there are no local facilities capable of dealing with it. It would be preferable to transport long distance waste by rail rather than by road.

²⁰ SEERA: No Time To Waste : Regional Waste Management Strategy : Consultation Draft March 2003

Waste Management Hierarchy



from 5th EC Environmental Action Programme Towards Sustainability (1993)

reproduced in South East Regional Waste Management Strategy Consultation Draft *No Time to Waste* (2003)

Self - Sufficiency

10.6 Minerals Planning Authorities should attempt to deal with their own waste so as to support regional self-sufficiency, that is, treating or disposing of waste within the 'region' in which it is produced. However the geographical proximity of areas needs to be taken into account alongside the local circumstances. For example parts of West and North Kent are close to regional boundaries and are also subject to nationally important planning constraints such as the Green Belt.

10.7 In 2001/02, approximately one third of Kent's household waste was exported to Essex (in the East of England Region). Whilst this Plan seeks to ensure that Kent and Medway manage the equivalent of their own waste (Policy WM4) some discretion may be required. There could be occasions where applying the self-sufficiency principle would clash with the proximity principle, for example if waste needed to be transported long distances across the county in order to keep it within the same region.

Need

10.8 The assessment of need for a waste management proposal should take account of the amount of waste that needs to be dealt with; the level and nature of management capacity that is committed, the projected growth in the amount of waste and statutory recycling and diversion targets.

Policy WM1: Integrated Waste Management

Provision will be made for the integrated management of waste reflecting Best Practicable Environmental Option (BPEO), the national waste hierarchy and national targets for waste management.

The Waste Local Development Documents for Kent and Medway will identify the range, scale and location of facilities to provide for rapid growth in capacity for recycling, composting and recovery from waste of all controlled streams.

Energy from waste proposals will be considered only as part of an integrated approach to increase waste recovery rates and should incorporate other waste management facilities including recycling, composting and materials recovery.

Kent & Medway Structure Plan



Policy WM2: Assessment criteria for waste proposals

Proposals for the treatment, storage, transfer, processing or disposal of waste will be required to show that they represent the most efficient and environmentally sustainable method of managing a specific type of waste. Proposals should demonstrate that they:

- Meet a demonstrable need that overrides material agricultural, landscape, conservation, traffic and other environmental or land use concerns; and
- Are the Best Practicable Environmental Option (BPEO) and thereby accord with the waste hierarchy, the proximity principle (taking into account the environmental impact of the mode of transport proposed and the contribution made to self sufficiency).

Waste Reduction

10.9 The most efficient way of tackling Kent and Medway's waste is to reduce the quantity produced in the first place. Local authorities should seek "project waste plans" to be produced in association with major development proposals which detail how waste is to be dealt with both during construction and subsequent occupation. These might, for example, detail proposals for shared waste collection points, for allowing waste to be separated and transferred for recycling or re-use. Policies should also encourage manufacturing using recycled waste as an alternative to raw materials.

Policy WM3: Securing waste reduction

Development proposals will be required to demonstrate they are able to make a contribution to reducing growth in the volume of waste generated in Kent and Medway.

Local Development Documents will include policies:

- 1) Requiring the submission of a waste minimisation plan alongside major development proposals and, where appropriate, provide for the use of conditions or agreements to secure waste minimisation;
- 2) Providing for the development of assembly manufacturing or processing facilities to recycle and/or recover waste.

Provision for Waste Management Facilities in Kent and Medway

10.10 Kent and Medway need to provide enough appropriate facilities to deal with waste within their respective areas. While it would be impractical for Kent and Medway to achieve absolute self-sufficiency each authority should seek to achieve its equivalent after cross border movements have been taken into consideration.

10.11 In the past, waste management policy has planned ahead on a ten-year basis. However finding alternatives to landfilling requires significant levels of capital investment and involves long lead times in

planning and development. The amount of waste management capacity will be calculated by looking at the existing and committed capacity for dealing with a specific waste type and comparing it with the amount of that type of waste expected to arise.

Policy WM4: Planning for waste management capacity

The Kent and Medway Waste Local Development Frameworks will make provision for, and maintain, integrated waste management capacity sufficient for 15 years ahead.

Through their Waste Local Development Frameworks, Kent and Medway Councils will each make provision for the management of the equivalent of the waste arising in their areas.

10.12 The type of waste facilities provided will largely reflect the need to divert waste away from landfill in order to meet national targets within the National Waste Strategy 2000 and statutory Best Value Performance Indicators for household waste recycling and composting. These set targets for:

- Slowing down the growth in the amount of waste produced;
- Reducing the quantity of biodegradable municipal waste landfilled;
- Reducing the quantity of industrial and commercial waste landfilled;
- Recovering value from municipal waste and for recycling or composting household waste

10.13 Targets for recycling and diverting waste from landfill are set out in Chapter 11 on implementation and monitoring.

10.14 Kent and Medway send almost 80% of their household waste to landfill (2001/02). This level must be reduced to meet statutory requirements and contribute to national targets. Rapidly diminishing landfill space adds to the pressure to identify alternative ways of disposing of our rubbish. In 1999 Kent and Medway had less than 6.5 years worth of landfill space left²¹. The steady move towards integrated waste management techniques will reduce the county's dependency on landfill. But while disposing of waste in this way is seen as a last resort, there will be a continuing need to deal with residual wastes by landfilling.

10.15 Landfilling is likely to continue on sites used for mineral extraction where this goes hand in hand with restoring the site. Kent and Medway's geology dictates that some mineral workings are only suitable for filling with inert material such as construction and demolition waste. To reinstate sites with non-inert material would carry a high risk of ground contamination. Inert waste material is however, becoming less common following the success of national initiatives to reduce waste such as the Landfill Tax. For this reason where disposal to landfill is justified under the provisions of Policy WM2, the material involved should be directed to appropriate mineral workings to allow them to be restored. In some areas the nature of the underlying geology

may prohibit the disposal of even inert waste to mineral workings.

10.16 Although the disposal of non-inert waste to landfill may be justified if it is considered to be the BPEO, finding suitable landfill sites can prove difficult because of the need to prevent groundwater pollution. Landraising, a form of disposal that changes existing land profiles - may offer an alternative means of disposal for non-inert waste. Landraising can be visually intrusive and needs sensitive treatment but it can offer advantages over landfill as it enables pollution to be more easily managed. Sensitive landraising at existing landfill sites could offset the need for further greenfield sites. Landraising, like landfill, should only be used as a last resort when other methods of disposal, higher up the hierarchy, have been exhausted.

Policy WM5: Waste Disposal to Land

Where disposal of waste to land is proved necessary:

- 1) For inert waste, priority will be given to using suitable mineral workings rather than other land disposal sites where this will facilitate the reinstatement of land to a beneficial after-use and/or secure improvement of the environment;**
- 2) For non inert waste, subject to Policy WM2, the Councils will consider landraising as an option for land disposal.**

²¹ Strategic Waste Management Assessment 2000: South East (Environment Agency).

Kent & Medway Structure Plan

Location of Future Waste Management Facilities

10.17 Kent and Medway presently export more than a third of their household waste for landfilling. New facilities are needed to allow waste to be dealt with more sustainably. Policy WM6 sets out a prospective pattern of key new facilities. It is based upon current waste levels and disposal flows and set against the backdrop of the existing and committed facilities²².

10.18 Kent and Medway will seek to maximise opportunities for new recycling facilities, particularly where waste can be transported by means other than by road. Sites that offer good access by rail or water could contribute significantly to the development of sustainable waste management.

10.19 Biological treatment of waste by such methods as composting offers an effective way of achieving recycling targets. Treatment plants usually take in green waste from a variety of sources, compost it and then take it off site for sale as a soil conditioner. Two industrial scale plants already exist in Kent - at Dunbrik near Sevenoaks and at Shelford near Canterbury. There is also a handful of small, farm based composting facilities located sporadically throughout the county. These smaller facilities tend to use the compost on adjacent farmland. While such facilities reduce the need to transport waste, it is unlikely that they will make a significant contribution to recycling targets. Further, industrial scale composting capacity is likely to be required in North

and East Kent to ensure that all parts of the county are adequately served.

10.20 Recycling alone will be unable to deal with Kent and Medway's waste management requirements in the short to medium term. This is because of the time needed to secure the significant investment required and changes in public attitudes and behaviour.

10.21 National policy regards facilities that derive energy from waste as an essential part of waste management strategy. The new facility that is committed at Allington, near Maidstone will be capable of accepting up to 500,000 tonnes of household and industrial and commercial waste each year. It will be able to deal with waste arising in Mid and West Kent but further capacity will be needed in East Kent.

Policy WM6: Provision of strategic waste management facilities

The Kent and Medway Waste Local Development Frameworks will seek to provide a pattern of waste management facilities over the plan period, to include:

- (i) A strategic recycling facility in North Kent to meet local and regional needs;**
- (ii) Industrial scale composting facilities in North Kent and East Kent;**
- (iii) A waste reprocessing plant in East Kent**

providing energy production both for the plant and wider use and incorporating provision for materials recycling;

- (iv) Further landfill capacity in North Kent to meet the need to dispose of residues to land; and Other facilities that may be required to meet integrated waste management targets.**

They will also determine the need for, and pattern of, small scale waste processing and composting facilities.

Wherever practicable facilities should be located to enable the use of rail and/or water based transport.

Construction Projects

10.22 Construction projects such as new transport schemes and major developments can require significant quantities of aggregate minerals or give rise to significant quantities of surplus spoil. As a result they can have a major impact on land use and transportation. Planning authorities considering large projects will seek to ensure that any resource or disposal requirements are dealt with either on site or adjacent to it. Where this is not possible they will seek agreement on appropriate routes for vehicles bringing material into, or out of, the site and on where materials should be sourced and taken to. Use of the rail network will be promoted wherever possible.

²² See KMSP Background Paper: Waste Arisings, Disposal and Management Facilities and Future Capacity.

Policy WM7: Construction related spoil

In order to minimise the environmental impact of construction projects which require significant quantities of construction aggregates or give rise to significant amounts of surplus spoil, a scheme for the transport and routing of such materials, together with proposals for the disposal or reuse of surplus spoil, will be designed into the project itself.

Minerals

10.23 Minerals make an essential contribution to economic prosperity and provide raw materials for many everyday needs - homes, community buildings, schools, roads, glassware, household goods and much more. With continuing development the need for accessible sources of minerals remains strong.

10.24 Minerals can only be worked where they occur naturally and their extraction can have significant impacts on the environment. Kent and Medway are rich in minerals containing a variety of sands and gravels as well as chalk, ragstone, clays and brickearth. Given the high environmental quality of much of Kent's undeveloped land there is a need to balance the demand for minerals with protection of the county's distinctive natural features. There is also a need to balance the benefits of mineral extraction with the well being and amenity of communities living nearby.

10.25 More detailed policies are outlined in the existing and emerging Kent and Medway Minerals Local Plans/Local Development Documents.

Mineral Resources: Key Issues

- Maintaining a sufficient supply of minerals for the development industry
- The environmental impact of mineral extraction and transportation
- Safeguarding mineral resources for the longer term
- Maintaining sufficient capacity for the importation of minerals

The Strategy for Minerals is to:

- Maximise the use of secondary and recycled minerals
- Maintain a continuity of supply either locally or by importing a range of mineral types
- Avoid unacceptable environmental impacts
- Make sure land is restored satisfactorily
- Safeguard local minerals reserves and protect import facilities

Supply of Minerals

10.26 Kent and Medway rely upon a range of sources for their minerals, including:

- Locally extracted virgin (primary) materials;
- Imported virgin (primary) materials;

- Virgin (primary) marine dredged material (sand and gravel only);
- Recycled materials such as road scalplings and planings and construction and demolition waste; Secondary materials - material which can be used instead of a primary material and which usually arises as a by-product of other quarrying, mining or industrial processes. Examples include pulverised fuel ash, blast furnace slag and incinerator residues.

10.27 It is national policy to move towards a more sustainable use of resources by using fewer land-won "primary" minerals and more alternative materials taken from secondary or recycled sources. New national and regional guidelines for the supply of aggregates (MPG 6 Amendment 2003) indicate that these secondary sources will be expected to provide a significantly greater share of total supply compared with the previous 1994 guidelines. The guidelines call for a 50% increase in the use of secondary sources by 2011 compared with the 2001 level. This can be encouraged by influencing construction/building specifications and by making provision for facilities that treat and process potential sources of recycled and substitute material.



Courtesy of the Quarry Products Association

Policy M1: Sources of Minerals Supply

Subject to environment, transport and other planning considerations, proposals for the provision of minerals through recycling, the use of secondary materials, imports and the acceptable extraction of local sources of supply will be permitted.

Policy M2: Use of Secondary/ Recycled Materials

Kent County Council and Medway Council will seek to maximise the use of recycled and secondary materials through:

- The Councils' own material specifications in setting contracts;
- Encouraging other contractors to use, and specify the use of, recycled materials;
- Permitting recycling proposals at appropriate locations consistent with Waste Local Development Documents.

Consideration of Minerals Proposals

10.28 Extracting and supplying of minerals has the potential to cause significant harm to the environment. Community and environmental interests will be protected by imposing appropriate conditions on planning permissions and monitoring operations at sites once permission has been granted. Suitable restoration and aftercare will also be required at mineral sites. Restoration provides a unique opportunity for mineral development to enhance the environment and contribute to nature conservation and biodiversity objectives.

Policy M3: Assessment Criteria for Minerals Proposals

Proposals for minerals extraction and/or associated plant and buildings and minerals recycling facilities will be permitted only where they do not have an unacceptable adverse impact on agricultural, landscape, conservation, or environmental interests of acknowledged importance or on residential and business communities.

Permission will only be granted if any physical constraints on the land have been properly taken into account and if there are adequate access proposals, measures to minimise harm to the landscape and environment, to protect local communities, to landscape the site, remove plant or buildings after workings have ceased and to restore the land to an appropriate after use, normally as working progresses.

Wherever appropriate a period of aftercare will also be required.

Rail and Wharf Facilities for Minerals Handling

10.29 Geological and environmental constraints mean that approximately two thirds of primary aggregates are supplied via rail and wharf facilities (2001 figures). Large reserves of marine aggregate have been identified in the Eastern English Channel. There are a number of deep water berths along the Thames and the Medway which are suitable for

mineral importation and some are already used for this purpose. The ability to accommodate larger ships means that these deep water facilities play an important part in the supply of minerals to Kent and Medway and to the wider region, particularly where they have good, or potentially good rail links.

10.30 River frontage has become increasingly attractive for a range of development and suitable sites for wharves have already been lost. Since imported materials will continue to contribute to Kent and Medway's overall minerals requirement, it is important to make sure that Kent's wharf and rail facilities are protected and, where possible, enhanced. As well as maintaining sources of supply this will also maximise the amount of bulk material transported in ways other than by road. It will be particularly important where good surface access to wharves exists or can be provided. The authorities will need to consult river and port authorities on navigational and conservancy matters.

Policy M4: Provision and Safeguarding of Marine Wharves and Rail Depots

Existing marine wharves and rail depots that receive and process minerals will be protected generally from development that would inhibit their continued operation or potential expansion. This will be achieved through the identification of buffer zones around such sites in Minerals Local Development Documents.

Wharves on the Thames and Medway will be subject of study and potential rationalisation in accordance with Policy TP22.

Proposals for new marine wharves and rail depots, to receive and process imports of minerals, will be permitted on appropriate sites. In assessing whether a site is appropriate, Kent County Council and Medway Council will consider all material planning interests including those relating to agriculture, landscape, conservation, environment, traffic and access.

Mineral Supply Construction Aggregates

10.31 Construction aggregate - sand, gravel and rock - is the main type of mineral found and extracted in Kent and Medway. It is used by the construction industry in concrete, road stone and asphalt and for such things as construction fill and railway ballast. Building sands, concreting sands and gravels and ragstone make up the main types of aggregates found in the county.

10.32 Guidance on the level of provision that should be made for construction aggregates is set out in Minerals Planning Guidance Note 6 "Guidelines for Aggregates Provision in England". This sets out a level of provision for each region which is then apportioned to each mineral planning authority. These authorities must then reflect these requirements in their development plans. In the 1994 guidelines the figure for Kent and Medway relating to sand and gravel is 3.2 million tonnes per annum



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(mtpa). However sand and gravel production in Kent and Medway has fallen substantially below the previous regional apportionment and since the mid 1990s has been approximately 2.2 mtpa.

10.33 In June 2003 Government published revised national and regional guidelines for 2001-2016 as an amendment to MPG6. These new guidelines are (nationally) 19% lower than the levels forecast for 1992 to 2006 in MPG6 (1994) and assume a substantially greater role for secondary and recycled aggregates. A new sub regional apportionment of these revised guidelines is expected by the end of 2003. The current figure of 3.2 mtpa for Kent and Medway is expected to be substantially reduced as a result of this - the provisional proposal is for 2.42 mtpa for land won sand and gravel together with a figure of 1.2 mtpa for land won crushed rock.



10.34 Authorities are also expected to maintain a stock of planning permissions for aggregates (a landbank) which will provide at least 7 years extraction of sand and gravel and at least 10 years for crushed rock, such as ragstone. The revised apportionment figure for Kent and Medway would extend the life of the current landbank for sand and gravel which in 2000 was estimated at 13 years based on the 1994 apportionment. It suggests a reducing impact on the environment from primary aggregate production. Proposals for aggregate extraction will be assessed in the light of these considerations and the criteria set out in Policy M3. In terms of Policy M5 there are no occurrences of ragstone within the Medway area.

Policy M5: Provision for Construction Aggregates

Kent County Council and Medway Council will review and maintain:

- 1) A supply of aggregates sufficient to contribute to national, regional and local needs, in accordance with their agreed share of regional aggregates supply.**
- 2) A landbank of permitted reserves of:**
 - **sand and gravel sufficient for at least 7 years' production at agreed apportionment levels;**
 - **ragstone sufficient for at least 10 years' supply.**

10.35 In terms of crushed rock, a major potential limestone resource has been identified in East Kent. If local environmental and highway issues can be dealt with satisfactorily then favourable consideration will be given to proposals for limestone mining in this area. This would secure a major source of quality hard rock to help meet the community's requirements for construction aggregates in a way that would be less environmentally damaging compared to other methods of winning aggregates from the land.

Policy M6: Limestone Extraction in East Kent

Kent County Council will give favourable consideration to limestone mining in East Kent. When assessing the landbank for Kent's land won construction aggregate requirements, no account will be taken of this option until planning permission has been granted.

Other Minerals

10.36 When considering the need to identify or permit additional reserves of non-aggregate minerals, the minerals planning authorities will take into account recent levels of national and regional production and the extent of current permitted reserves. The need to identify sufficient mineral reserves to justify substantial new investment in existing and new fixed plant will also be recognised.

Silica Sand

10.37 Silica (or industrial) sand, is an essential raw material used in many industrial processes including glass manufacture, the production of foundry castings, ceramics, chemicals manufacture and for water filtration. There is specific national planning policy guidance relating to silica sand (MPG15) which stresses the need to recognise the scarcity of economically workable silica sand deposits and the high capital cost of investment in the industry. Policy M7 establishes landbank reserves in line with this guidance. There is no silica sand in the Medway area. Proposals will be subject to the criteria set out in Policy M3.

Policy M7: Silica Sand

Kent County Council will seek to maintain a landbank of permitted reserves of silica sand sufficient for at least 10 years supply for each production site, or at least 15 years at sites where significant capital investment is required.

Building Stone

10.38 Some minerals found in Kent, particularly local ragstone, can be used as building stone. This type of material is important for repairing local historic buildings and monuments. Workings of this kind are generally small scale. An adequate supply of local building stone should be secured in order to make sure that the high quality of Kent and Medway's historic environment can be maintained.

Policy M8: Building Stone

Kent County Council and Medway Council will seek to ensure that there is an adequate supply of building stone available for the repair of local buildings of architectural and historic importance.

Brickearth

10.39 Government policy emphasises the need to make suitable provision for brickearth, which is used to make stockbricks (often known in Kent as London Stocks).

Policy M9: Brickearth

Proposals for the extraction of brickearth will be permitted which will enable each stockbrick works to be maintained with at least 15 years reserves of brickearth. Proposals for brickearth extraction on the best and most versatile agricultural land must provide for the site to be progressively restored.

Chalk and Clay

10.40 Chalk and clay provide raw materials for specialist uses and support industries that are important to the national and local economy. Chalk is used in the building industry and is worked for agricultural purposes such as liming, and in manufacturing, e.g. in the paper industry. It is also used in the cement industry and for other engineering purposes. Clay is extracted for use in the brick and cement industry, for sea defences and other engineering purposes such as lining landfill sites.

Policy M10: Chalk and Clay

Proposals for the extraction of chalk and clay will be permitted which enable:

- a) Kent and Medway's cement industry to be maintained with up to 25 years reserves of chalk and clay;
- b) Kent and Medway's clay brick industry to be maintained with at least 15 years reserves of clay;
- c) Reserves of agricultural chalk to be maintained with a 10 year supply; and
- d) Kent and Medway's engineering, pharmaceutical and whiting manufacturing requirements for chalk and clay to be met.

Oil, Gas and Coalbed Methane

10.41 Government regards the exploration and production of oil, gas and coalbed methane as important for the long-term national interest. Proposals to investigate commercial production of oil, gas or coalbed methane workings for commercial production will be considered on their merits against Policy M3 of this Plan.

Policy M11: Oil, Gas and Coalbed Methane

Proposals for the exploration and appraisal of oil, natural gas and coalbed methane will be permitted. Permission for any production of on-shore oil, gas and coalbed methane which would require a gathering station, export terminal or distribution network will only be given if there are adequate proposals for:

- a) the screening, landscaping and design of production well sites, gathering stations and export terminals; and
- b) access and routing for vehicular traffic; and
- c) avoiding nuisance to any sensitive development in the vicinity; and
- d) transport of oil, gas and coalbed methane within the plan area (for which there will be a presumption in favour of rail transport and/or underground pipelines so far as this is practicable); and
- e) the testing or disposal of gas; and
- f) the clearance of plant, equipment and buildings and the restoration and aftercare of all areas affected by the production operations at the end of the permitted period.

The siting of gathering stations and export terminals in locations protected by the Structure Plan's countryside and coast policies, or in locations close to substantial built development, will be refused, unless it can be shown that there is no suitable alternative location.

Safeguarding Mineral Resources

10.42 Mineral resources should be protected against sterilisation by other forms of development. MPG1 "General Considerations and the Development Plan System", gives guidance on declaring Mineral Consultation Areas (MCAs). In such areas Minerals Planning Authorities have to be notified of any proposed surface development which would sterilise an economically important deposit and are given the opportunity to object. Consideration will be given to the identification of MCAs in the Kent and Medway Minerals Local Development Documents.

Policy M12: Safeguarding of Mineral Resources

Development proposals which would sterilise the future availability of strategic mineral reserves identified in Minerals Local Development Documents will be refused. Where possible, known sources of secondary and recycled materials will be safeguarded from sterilisation.

Where development is proposed, encouragement will be given to the extraction of the mineral resource or use of secondary and recycled materials prior to, or in conjunction with, development.