



chapter 10

Managing our waste and mineral resources

Waste management

10.1 The people and businesses of Kent produce large volumes of waste. Unless adequately managed and treated, it has 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 Directive*¹, 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. For the KCC area the Kent Waste Forum has developed a policy document, *Sustainable Management of Household Waste – Joint Strategy for Kent (2003)*. This is currently being revised.

¹ 1999/31/EC. Other relevant EU regulations include the Waste Electric and Electronic Equipment Directives (2002/96/EC and 2003/108/EC) and the End of Life Vehicles Directive (2000/53/EC)

Key waste management issues

- Household waste in Kent has grown since April 2001 at an average annual rate of 3.4%.
- In 2004/05, each household in Kent produced an average of 1.4 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 14% (93,800) over the 2001-2016 period as a result of the proposals in this Plan.
- 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%).
- Land available for landfill is running out.
- There is a need to minimise the environmental impact of waste.
- Kent has traditionally taken waste from neighbouring areas and exported to others
- Kent currently recycles or composts around 30% of household waste. The National Waste Strategy seeks to increase this to 33% by 2015.

Regional Waste Management Strategy²

“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 production has grown as the economy and consumption have grown. A throwaway society has developed, discarding materials with little thought for the environmental impact or the waste of valuable resources, including energy, this represents. This must change.”

A new approach is needed. Growth in waste needs to be reduced. History shows that this will not be easy and will take time. Disposing of materials should be the least preferred option after ensuring as much value as possible has been recovered from them.

The Regional Waste Strategy aims to reduce the growth of all waste to 1% per annum by 2010 and 0.5% per annum by 2020. At the same time it aims to increase the amount of all waste that is diverted from landfill to 86% and achieve a recycling and composting target of 65% (all waste streams) 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 amount of waste diverted 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 required. It will need to be accompanied by changes in practice and behaviour and complemented by other initiatives, for example the development of new 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 allow Kent's waste to be managed 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 principles of using the best practicable environmental option when disposing of waste
- promote the re-use, recycling and recovery of waste.

Integrated waste management

10.3 The application of the principles of *Best Practicable Environmental Option* (BPEO) is essential if Kent is to achieve a sustainable pattern of waste management.

² GOSE : RPG for the South East (RPG9) Chapter 10
Waste : June 2006

'Best Practicable Environmental Option' (BPEO)

This seeks to ensure that waste is dealt with in a way that considers environmental impacts alongside social and economic considerations and represents 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
- Self-sufficiency

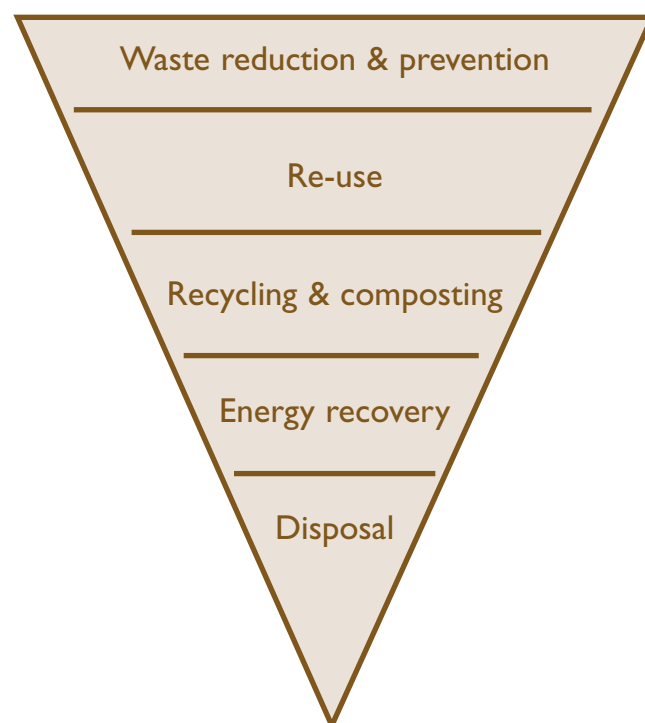
Before the publication of *PPS10 Planning for Sustainable Waste Management* and associated changes to Waste Strategy 2000 in July 2005, government advice in PPG10 required planning authorities to consider whether or not waste management proposals reflected the BPEO. The aim was to help establish the optimum and most sustainable form of waste management for any given waste stream.

PPS10 no longer requires such assessments. The principles that underlay BPEO are to be delivered through plan-led strategies in Waste Development Frameworks which will be subject to sustainability appraisals. The Kent Waste Local Plan (1998) was adopted before the requirement to complete a sustainability appraisal. The Structure Plan (Policy WM2) requires local authorities to consider whether or not proposals for waste management meet the principles of BPEO through Development Documents and when considering planning applications. This issue will be addressed further in preparing the Kent and Medway Waste/Local Development Documents.

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 turning waste into energy. 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 involved and local considerations. The aim is to move up the hierarchy to ensure better environmental protection and meet statutory targets. Complying with the waste hierarchy and national targets will need a significant increase in the number of facilities for materials recycling, composting, thermal treatment and landfill.

The Waste Hierarchy



Source: Defra: Review of England's Waste Strategy: A Consultation Document: Feb 2006



The proximity principle

10.5 The proximity principle requires waste to be disposed of as close as possible to where it was created, reflecting the fact that transporting waste 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 for longer distance transport of waste to be by rail or water rather than by road.

10.6 Locating waste management facilities within the Green Belt may be appropriate where this is consistent with the 'proximity principle' for locating waste management capacity close to its source and where facilities could contribute to increased recycling/recovery of waste (for example small scale composting). This is recognised in Policy WM2. Disposal of waste on land where this reflects the Best Practicable Environmental Option need not be inappropriate development in a Green Belt context if it maintains openness and does not conflict with the purposes of including land within the Green Belt.

Self-sufficiency

10.7 Waste Planning Authorities should attempt to deal with their own waste in order to support regional self-sufficiency - treating or disposing of waste within the 'region' in which it

is produced. At the same time, the geographical proximity of areas needs to be considered, along with 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.

10.8 In 2004/05, approximately 25% of Kent's and 60-65% of Medway'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

10.9 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 the principles of Best Practicable Environmental Option (BPEO), the national waste hierarchy and national and regional targets for waste management.

Waste or Local Development Documents 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 in Kent.

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.

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

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 best balance between the most efficient and most 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
- reflect the principles of 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.

Small scale composting facilities within

the Metropolitan Green Belt will be supported where these criteria are fulfilled, where a local need is met, and where they can be accommodated without severe impact on the purposes of the Green Belt.

Waste reduction

10.10 The most efficient way of tackling Kent's waste is to reduce the quantity produced in the first place. Local authorities should ask developers to produce 'site waste management plans' as part of major development proposals. These should detail how waste is to be dealt with during both construction and subsequent occupation. They might, for example, detail proposals for shared waste collection points that would allow waste to be separated and transferred for recycling or re-use. Local Development Document policies should also encourage manufacturing using recycled waste instead of 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.

Local Development Documents will include policies:

- 1) requiring the submission of a waste minimisation and recycling 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 manufacturing or processing facilities to recycle and/or recover waste.

Providing for waste management facilities in Kent

10.11 Kent and Medway need to provide enough appropriate facilities to deal with waste within their respective areas. While it would be impractical for each area to achieve absolute self-sufficiency, each authority should seek to deal with an amount that is equivalent to the amount it produces after cross-border movements have been taken into consideration.

10.12 In the past, waste management policy has planned ahead on a 10-year basis. Finding alternatives to landfill, however, requires significant levels of capital investment and involves long planning and development lead times. A longer forward planning period of 15 years is proposed.

10.13. The Regional Waste Strategy provides estimates of the annual average tonnages for Municipal Solid Waste (MSW) and Commercial and Industrial Waste (C and I) to be managed in the region and its sub regions, including Kent and

Medway, in the period to 2025. These figures are forecasts to provide benchmarks for the preparation of Waste Development Documents, and are subject to testing, monitoring and review as part of that process. The Regional Waste Strategy also considers that there is an immediate and acute shortfall in the waste management capacity needed to achieve targets for recycling, composting and other forms of waste recovery. The amount of additional waste management capacity to be identified in Kent and Medway will be calculated by considering 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.



Annual average tonnages to be managed: 2005-2025: (thousand tonnes)

	Waste Stream	2005-2009	2010-2014	2015-2019	2020-2024	2025
Kent and Medway	MSW	1038	1163	1271	1369	1431
	C and I	2019	2262	2472	2637	2716

Source: GOSE: Regional Planning Guidance for the South East (RPG9) Chapter 10 Waste Table 3; June 2006

10.14. In the past the South East, including Kent, has been a major importer of waste from London. The Regional Waste Strategy assumes that London's exports of waste to the South East will decline over time and generally be limited to landfilling of waste residues that have been subject to prior recycling or other recovery. The Structure Plan provides for disposing of exported waste from London in the region on this basis. The emerging South East Plan (2006) includes proposals for apportioning this provision for landfill capacity across the region. For Kent and Medway this amounts to 2 million tonnes between 2006 and 2015 and 1.2 million tonnes between 2016 and 2025. If this is confirmed it will be taken into account in planning for waste management capacity in Kent and Medway.

Policy WM4: Planning for Waste Management Capacity

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

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

10.15 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, the requirements of the EU Landfill Directive 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 recycling or composting household waste

10.16 The Waste and Emissions Trading Act 2003 now places strict limits on the amount of biodegradable municipal waste that can be landfilled. These thresholds reduce year-on-year from 2005 to 2020 with the aim of ensuring that by 2020 the amount landfilled is no more than 35% of that landfilled in 1995.

10.17 Kent sends about 70% and Medway about 60-65% of household waste to landfill (2004/05). 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. It is anticipated that by the end of 2006 there will only be three landfill sites receiving non-hazardous wastes in Kent and Medway (Shelford at Canterbury, Greatness at Sevenoaks and Shakespeare Farm in Medway). 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.

10.18 Landfilling is likely to continue on sites used for mineral extraction where this goes hand-in-hand with restoring the site. Kent'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.

10.19 Although the disposal of non-inert waste to landfill may be justified if it is considered to meet the principles of the BPEO, finding suitable landfill sites can prove difficult because of the need to prevent groundwater pollution. Where waste is disposed to land, a beneficial after-use and/or environmental enhancement should be sought. 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 to use 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 can be demonstrated to represent the Best Practicable Environmental Option in terms of Policy WM1:

- 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, Kent and Medway Councils will consider landraising as an option for waste disposal. Provision should be made for the reinstatement of land to a beneficial after-use.**

Location of future waste management facilities

10.20 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 indicates the types of waste management facility which may be required over the Plan period. Detailed requirements for the scale and type and location of such facilities are to be determined through Kent and Medway's Waste/Local Development Documents.

10.21 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 developing sustainable waste management.

10.22 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 - and a further plant has permission but is yet to be implemented at Blaise Farm near West Malling. There is also a handful of small, farm-based composting facilities located sporadically across 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 to ensure that all parts of the county are adequately served.

10.23 Recycling alone will be unable to deal with Kent's waste management requirements in the short to medium term. This is because of the time needed to secure the significant investment

required along with changes in public attitudes and behaviour.

10.24 National policy regards facilities that derive energy from waste as a valid option lower down the waste hierarchy for those wastes which cannot be realistically treated in other ways. The new facility at Allington, near Maidstone, will be capable of accepting up to 500,000 tonnes of household, industrial and commercial waste each year, primarily from Mid and West Kent.



Policy WM6: Assessment of Strategic Waste Management Facilities

Waste or Local Development Frameworks in Kent will assess a pattern of waste management facilities over the plan period that will include consideration of:

- (i) strategic recycling facilities**
- (ii) industrial scale composting facilities**
- (iii) waste reprocessing plant providing energy production both for the plant and wider use and incorporating provision for materials recycling**

- (iv) further landfill capacity to meet the need to dispose of residues to land and**
- (v) 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.

Construction projects

10.25 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 to agree appropriate routes to be used by vehicles bringing material into, or out of, the site and where materials should be sourced and taken to. Use of the rail network will be promoted wherever possible.

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

10.26 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. Continuing development means the need for accessible sources of minerals remains strong.

10.27 Minerals can only be worked where they occur naturally, and their extraction can have significant impacts on the environment. Kent is 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.

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 importing 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 worked and restored satisfactorily
- safeguard strategically important minerals and protect import facilities.



Supply of minerals

10.28 Kent relies upon a range of sources for its 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 arise as a by-product of other quarrying, mining or industrial processes. Examples include pulverised fuel ash, blast furnace slag and incinerator residues.

10.29 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. Regional strategy indicates that the supply of construction aggregates in the South East should be met from a significant increase in supplies of secondary and recycled materials, a reduced contribution from primary land-won resources and an increase in imports of marine-dredged aggregates. It sets a target of an increase from 6.6mtpa to at least 7.7mtpa in the use of secondary and recycled materials in the South

East by 2016. This can be encouraged by influencing construction/building specifications and by providing for facilities that treat and process potential sources of recycled and substitute material. The apportionment of this figure between minerals planning authority areas is being considered through the draft South East Plan (2006). An apportionment of 1.4mtpa for Kent and 0.2mtpa for Medway by 2016 is currently proposed.

Policy MN1: Sources of Minerals Supply

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

Policy MN2: 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 or Local Development Documents.

Consideration of minerals proposals

10.30 Extracting and supplying 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 then 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. Scope for biodiversity enhancement should be examined as part of the evaluation of prospective beneficial after-uses in support of the objectives of Policy EN8.



Policy MN3: 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

10.31 Geological and environmental constraints within Kent mean that approximately two-thirds of primary aggregates are imported 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 to the wider region, particularly where they have good, or potentially good, rail links.

10.32 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's overall minerals requirement, it is important to make sure that Kent's wharf and rail facilities are safeguarded from inappropriate development 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 MN4: 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 or Local Development Documents.

Wharves on the Thames and Medway will be the 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

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

10.34 Guidance on the level of provision that should be made for construction aggregates is set out in *National and Regional Guidelines for Aggregates Provision in England, 2001 – 2016* (June 2003). 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. The regional minerals strategy apportions 2.53mtpa to Kent and Medway for land-won sand and gravel and 1.2mtpa for land-won crushed rock. These figures take into account an anticipated reduction in land-won primary aggregates production to reflect a substantially greater role for secondary and recycled aggregates.

10.35 Authorities are also expected to maintain

a stock of planning permissions for primary aggregates (a landbank) that will provide at least seven years' reserves. Mineral landbanks are calculated by dividing the amount of reserves by average annual sales to give a figure for the number of years' reserves remaining. For construction aggregates, average sales are taken over the past seven years, with the highest and lowest figures omitted from the calculation. This is in line with the apportionment methodology used in Regional Guidance. Landbanks for other minerals may be calculated using average sales over the past three years where historical sales information over a longer time period is unavailable. The current apportionment figure for Kent and Medway would extend the life of the current landbank for sand and gravel and 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 MN3. In terms of Policy MN5 there are no occurrences of ragstone within the Medway area.



Policy MN5: 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 (i) sand and gravel and (ii) ragstone throughout the period of the Plan sufficient for at least 7 years at agreed apportionment levels.**

10.36 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 need for construction aggregates in a way that would cause less environmental damage than other methods of winning aggregates from the land.

Policy MN6: Limestone Extraction in East Kent

Subject to the requirements of Policies MN1 and MN3, 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

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

Silica sand

10.38 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 MN7 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 MN3.

Policy MN7: 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

10.39 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's historic environment can be maintained.

Policy MN8: 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

10.40 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 MN9: 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

10.41 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 MN10: Chalk and Clay

Kent County Council and Medway Council will seek to maintain throughout the Plan period:

- (a) at least 25 years of permitted reserves of chalk and clay for cement production**
- (b) at least 15 years of permitted reserves of clay for brick and tile production**
- (c) at least 10 years of permitted reserves of chalk for agricultural uses**
- (d) adequate permitted reserves of chalk and clay for engineering, pharmaceutical and whiting manufacture.**

Oil, gas and coalbed methane

10.42 Government regards the exploration and production of oil, gas and coalbed methane as important for the long-term national interest. Proposals for investigating commercial production of oil, gas or coalbed methane will be considered on their merits against Policy MN3 of this Plan. As well as obtaining planning consent, companies need to obtain a licence from the Department of Trade and Industry at various stages, including exploration, before wells or boreholes can be drilled for the production of onshore oil, gas and coalbed methane.

Policy MN11: 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

10.43 Mineral resources should be protected against sterilisation by other forms of development. *MPGI General Considerations and the Development Plan System*, gives guidance on declaring Mineral Consultation Areas (MCAs). In these areas Minerals Planning Authorities have to be notified of any proposed surface development that would sterilise an economically-important deposit and are given the opportunity to object. Consideration will be given to the identification of MCAs within Kent and Medway's Minerals/Local Development Documents.

Policy MN12: Safeguarding of Strategically Important Minerals

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

Where development is necessary, extraction of the mineral resource prior to, or in conjunction with, development will be encouraged.

Wherever practicable, proposals for development should provide for the use of secondary and recycled materials.