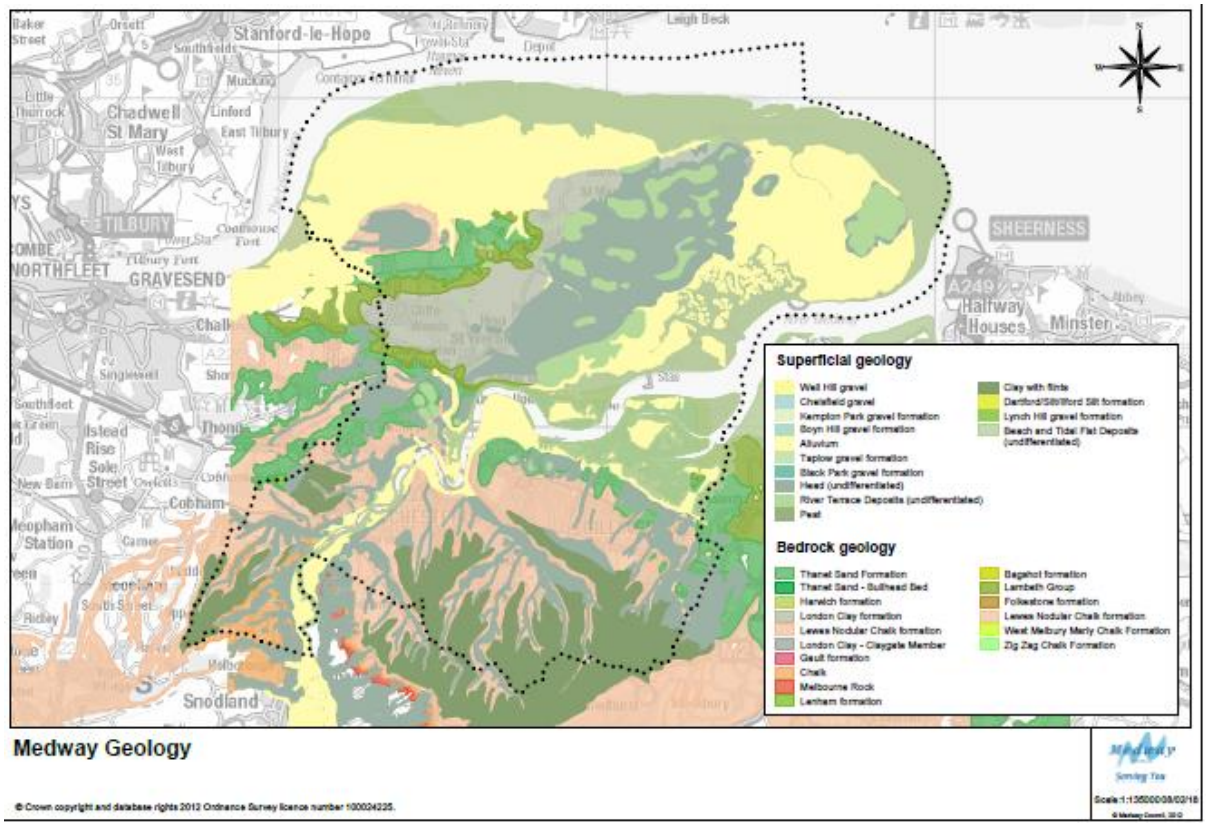
SECTION 12

MINERALS, WASTE AND ENERGY

Minerals

12.1 As a Minerals Planning Authority, Medway Council has the responsibility to produce planning policies for the management of minerals to ensure that there is a steady and adequate supply to meet local needs and contribute to regional requirements. The geology in Medway includes deposits of chalk, clay and sand and gravel, much of which is located on the Hoo Peninsula.



Policy MWE1: Minerals Supply

The council will plan for a steady and adequate supply of minerals by:

- Maintaining a 7-year landbank of permitted sand and gravel reserves;
- Supporting regional consideration and planning of minerals through its membership of the South East England Aggregates Working Party.

Land-won Minerals Extraction: Sand and Gravel

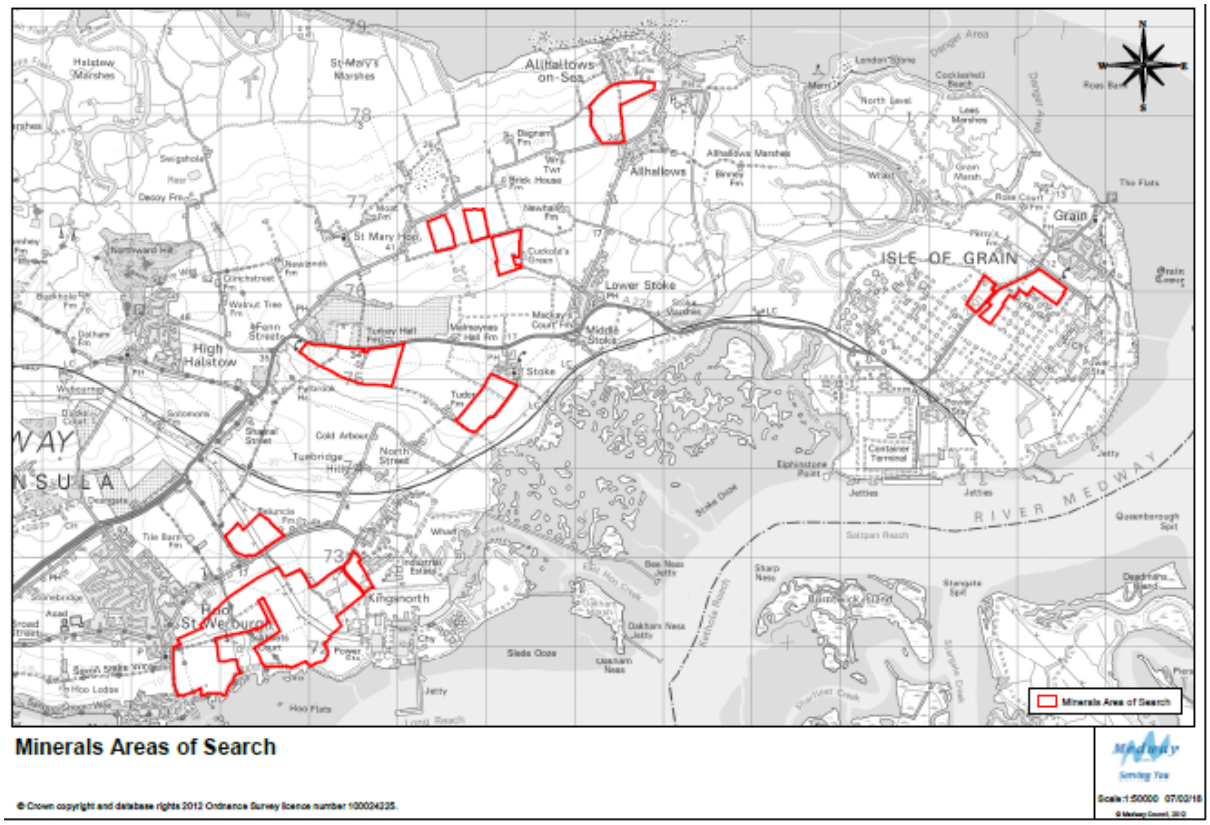
12.2 Planning permission has previously been granted for the extraction of sand and gravel at two quarries on the Hoo Peninsula, equating to a total permitted reserve of 1.3 million tonnes. Extraction of a large proportion of these permitted reserves is expected to take place over the next 10 years. Previous studies of river terrace sands and gravels on the Hoo Peninsula have identified in excess of 1.6 million tonnes of proven reserves, with between 0.9 million tonnes and 3.6 million tonnes of unproven reserves. Further studies of buried channel sand and gravel have also been previously undertaken within 2 specific areas on the Hoo Peninsula, providing reasonably robust evidence indicating reserves of 35.6 million tonnes.

12.3 The economics of exploiting the buried channel sand and gravel is not known and the likely impact of the extraction methods could be substantial, therefore only the identified reserves of river terrace sand and gravel will be safeguarded at this time. Furthermore, a 250m minerals consultation area will apply to all of these areas of search in order to safeguard against any development that would prejudice or prevent their future extraction.

Policy MWE2: Land-won extraction of sands and gravels

Proposals for the extraction of sand and gravel will be permitted within the identified areas of search when:

- There is a proven need for the minerals to be extracted at that time in order for the council to maintain a 7-year landbank;
- There is a clear programme and time limit for the operation proposed and satisfactory provision for the restoration and after-use of the site; and
- The proposed development is in accordance with the provisions of the Local Plan;
    - Exceptions will be considered when there are demonstrable overriding benefits that justify the development.



Minerals Areas of Search

Land-won Minerals: Chalk and Clay

12.4 Whilst no recent interest has been shown for the extraction of chalk and clay in Medway, it would be prudent that the resources of chalk and high quality engineering clay should be maintained. Medway has no brick or clay tile industry but has abundant London Clay resources that can be used for certain purposes such as coastal flood defences.

12.5 Planning permission has been granted for a chalk quarry with permitted reserves for at least 25 years supply at Holborough in the neighbouring Tonbridge and Malling Borough Council, on the border with Medway.

Policy MWE3: Land-won minerals: chalk and clay

Proposals for the extraction of land-won minerals will be permitted outside of the identified areas of search when:

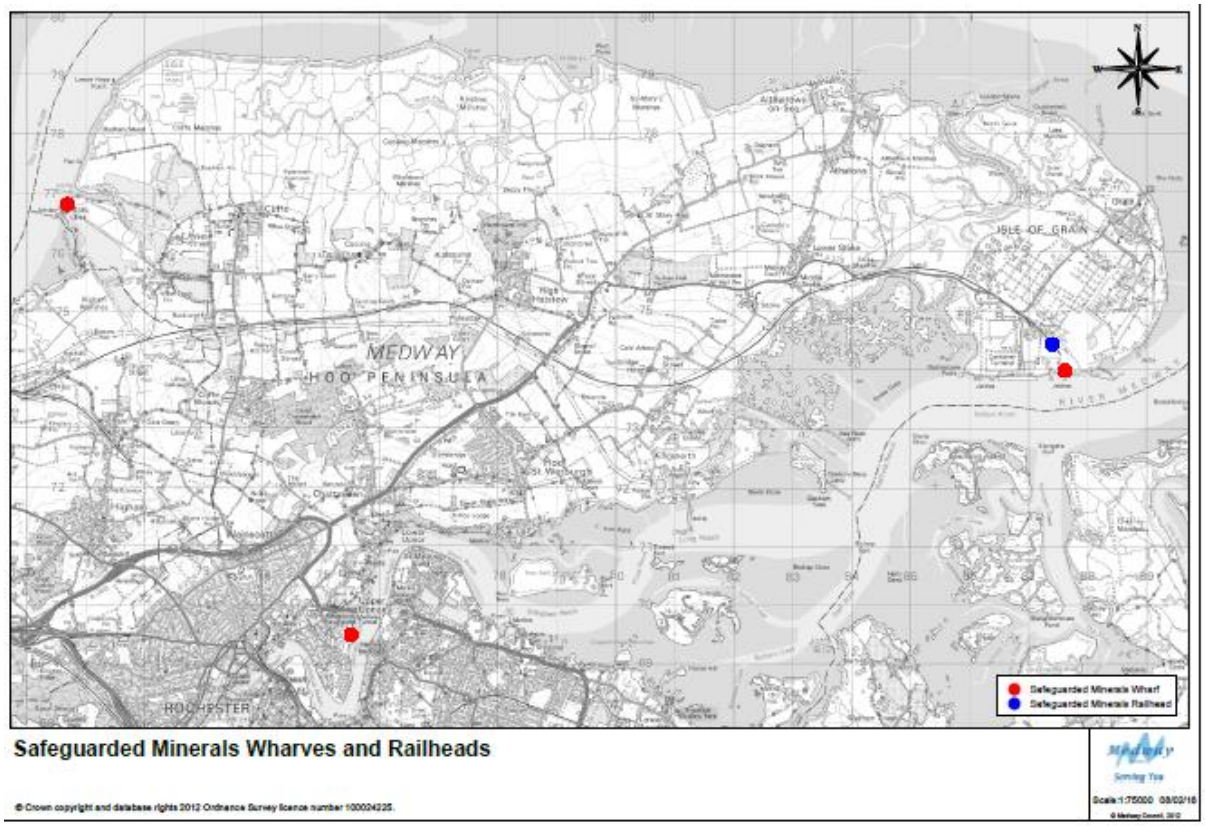
- There is no adverse impact on sites designated for environmental or heritage significance;
- There is a proven need for the minerals to be extracted at that time;
- The site is not allocated for another use in the Local Plan;
- The site is located in an area that can accommodate the proposed development;
- There is a clear programme and time limit for the operation proposed and satisfactory provision for the restoration and after-use of the site; and
- The proposed development is in accordance with the provisions of the Local Plan;
- Exceptions will be considered when there are demonstrable overriding benefits that justify the development.

Minerals Wharves and Railheads

12.6 Medway makes a critical contribution to the south east's infrastructure for the importation of aggregates through its wharves; particularly marine dredged soft sand, sharp sand and gravel. The scale of the importation makes Medway's wharves of regional and national significance. Medway currently has 3 wharves that are used for the importation of aggregates, at Cliffe, Medway City Estate, and on the Isle of Grain.

12.7 Two of the wharves, at Cliffe and the Isle of Grain, have associated rail depots. It is noted that the rail depot serving Cliffe is located just outside of the Medway area in Gravesham borough. Both provide valuable infrastructure for the distribution of aggregates to the wider south east region.

12.8 In order to maintain Medway's contribution to the importation and distribution of aggregates, current aggregates importation and distribution facilities and their proximity will be safeguarded against development that would prejudice or prevent their use. Furthermore, a 250m minerals consultation area will apply to all of the identified wharves and railheads in order to safeguard against any development that would prejudice or prevent their future operation.



Safeguarded Minerals Wharves and Railheads

Policy MWE4: Minerals wharves and railheads

The identified minerals importation and distribution facilities that currently benefit from permanent planning permission will be safeguarded from development that would prejudice or prevent their operation, unless;

- The proposed site is already allocated for other uses in the Local Plan;
- It can be demonstrated that the facility is no longer required;
- Material considerations indicates that the need for the proposed development override the presumption for safeguarding; or
- Alternative equivalent provision for the loss of the importation or distribution facility can be made elsewhere in Medway.

Secondary and Recycled Aggregates

12.9 Materials defined as recycled or secondary aggregates are derived from demolition and construction waste, and industrial by-products such as power station ash, colliery spoil, blast furnace slag and slate. Materials can be used as substitutes for aggregates, such as in concrete production, and as fill material. The use of recycled and secondary aggregates is critical to the sustainable management of primary mineral resources.

12.10 Medway currently has a range of facilities that have the potential to supply recycled and secondary aggregates. In-line with government policy to secure the valuable finite resources of materials required for development, the council supports the use of alternatives to primary aggregates.

12.11 In order to promote the continued use of secondary and recycled aggregates as a sustainable alternative to primary aggregates, current facilities will be safeguarded against development that would prejudice or prevent their operation.

12.12 Many of these types of sites are often located within existing commercial and industrial estates; therefore a generic (non-site specific) means of safeguarding these facilities is required.

Other Minerals Infrastructure

12.13 National policy requires other types of mineral infrastructure to be safeguarded. This includes existing, planned and potential sites for concrete batching, the manufacture of coated materials and other concrete products.

12.14 As with secondary and recycled aggregates facilities, many of these types of sites are often located within existing commercial and industrial estates; therefore similarly an appropriate generic (non-site specific) means of safeguarding these facilities is required.

Policy MWE5: Minerals infrastructure

Facilities for concrete batching, the manufacture of coated materials, other concrete products and the handling, processing and distribution of substitute, recycled and secondary aggregate material in Medway will be safeguarded from development that will prejudice or prevent their operation, unless;

- The proposed site is already allocated for other uses in the Local Plan;
- It can be demonstrated that the facility is no longer required;
- Material considerations indicates that the need for the proposed development override the presumption for safeguarding; or
- Alternative equivalent provision for the loss of the facility can be made elsewhere in Medway.

Question MWE1:

Do the proposed policies MWE1-MWE5 represent the most sustainable approach to managing the sustainable and steady supply of minerals in Medway?

What do you consider would represent a sound alternative strategy for minerals planning in the Medway Local Plan?

Waste Management

12.15 As a Waste Planning Authority, Medway Council has the responsibility to produce planning policies for waste management to ensure that there is sufficient capacity to sustainably manage the waste streams in the area. The council also has the responsibility as a unitary authority for the contractual arrangements for the collection, treatment and disposal of municipal waste.

12.16 Medway is an active partner to the South East Waste Planning Advisory Group (SEWPAG); a technical advisory group that considers waste management issues. SEWPAG comprises local authorities from the south-east of England along with several stakeholders, such as the Environmental Services Association and the Environment Agency.

12.17 The Waste Management Plan for England (2013)[1] and the National Planning Policy for Waste (2014)[2] currently set the planning policy context for waste management.

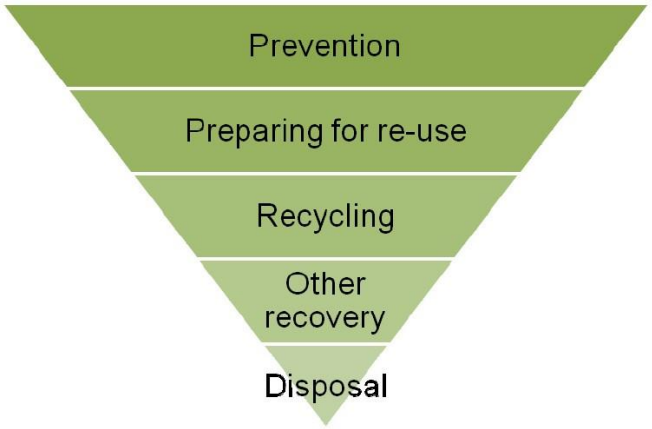
[1] Department for Environment Food & Rural Affairs, *'Waste Management Plan for England'*, December 2013, Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/265810/pb14100-waste-management-plan-20131213.pdf

[2] Department for Communities and Local Government, *'National Planning Policy for Waste',* October 2014, Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/364759/141015_National_Planning_Policy_for_Waste.pdf

Whilst the NPPF does not contain policies specific to waste, its principles remain relevant.

12.18 A 2016 Government report *From Waste to Resource Productivity*[3] provides an indication of current thinking on waste management, including recommendations on how the country must minimise waste and manage it more effectively through maximising opportunities to generate value from material that is both prevented from entering and extracted from waste streams.

12.19 One of the key principles of sustainable waste management is by driving waste management up the Waste Hierarchy; where *'Prevention', 'Preparing for re-use', 'Recycling'* and *'Other recovery'* come before *'Disposal'* as a last resort.



12.20 Another key principle is that the treatment of waste as close to its origin as possible; limiting the environmental impact of transportation elsewhere, and instilling a more responsible self-sufficient approach towards waste management.

Policy MWE6: Waste Management

All development should seek to minimise the generation of waste, having regard to the Waste Hierarchy.

The council will promote sustainable waste management within all new developments, ensuring that there is an appropriate provision for the separation, storage and collection of waste.

In order to help reduce waste through the development process, planning applications for major or strategic development[4] or those where significant levels of waste will be generated must include a waste management audit. The audit will be expected to show how waste is to be managed both through the construction period, including demolition and remediation, if

[3] Government Office for Science, ' From Waste to resource productivity', Available at, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/667476/from-waste-to-resource-productivity-final-report.pdf

[4] Major development and Strategic comprises development of over 10 residential units, over 1,000sqm floorspace, over 2 hectares site area, or any development proposals requiring an Environmental Assessment.

appropriate; and that effective means of managing waste arising from the development are provided.

The council will continue to actively support regional consideration and the planning of waste management through its membership of the South East Waste Planning Advisory Group (SEWPAG), and with neighbouring Waste Planning Authorities on cross-border waste management issues and opportunities.

New Waste Management Facilities

12.21 Many of the existing waste management facilities in Medway are clustered within existing industrial areas such as at Medway City Estate and Kingsnorth, near Hoo St Werburgh; therefore further waste development in these locations (as defined by Policy MWE7) would be appropriate provided that the relevant environmental standards are met.

12.22 Opportunities should be explored for the development of new waste management facilities in these locations that utilise the river Medway as a means of transportation.

Policy MWE7: New Waste Management Facilities

The council will strive to maintain net self-sufficiency across each of the waste streams through permitting facilities for the reuse, recycling, treatment and transfer of waste materials, subject to their being of an appropriate environmental standard. Medway City Estate and Kingsnorth and, at a lesser scale, the existing established industrial estates are the preferred locations for such activities. The development of waste facilities outside of identified industrial areas will only be permitted where:

- There is no adverse impact on sites designated for environmental or heritage significance;
- The site is not allocated for other uses in the Local Plan;
- The site is located in an area that can accommodate the proposed development and does not have an unacceptable impact on amenity, the local environment and transport networks; and
- The site comprises brownfield land;
    - Proposals on green field land will only be permitted where no alternative suitable brownfield sites can be identified.

Special consideration will be given to the development of waste management within existing established industrial estates that utilise existing rail facilities or the river Medway as a means of transportation.

Existing Waste Management Facilities

12.23 Medway currently has a range of waste management facilities capable of handling a number of different waste streams. This mix of facilities is of regional significance, particularly with regard to hazardous waste; therefore in order to fulfil the ambition to retain self-sufficiency and to achieve zero waste to landfill, the current facilities and their proximity will be safeguarded against non-waste development that would prejudice or prevent their use.

Policy MWE8: Existing Waste Management Facilities

Existing waste management facilities that currently benefit from permanent planning permission will be safeguarded from development for non-waste management uses, unless;

- The proposed site is allocated for other uses in the Local Plan;
- It can be demonstrated that the facility is no longer required;
- Material considerations indicates that the need for the proposed development override the presumption for safeguarding; or
- Alternative equivalent provision for the loss of the waste management facility can be made elsewhere in Medway.

Disposal to Land

12.24 Landfill capacity across the South East is declining rapidly but that is also the case with the quantity of material that needs to be disposed of in this way. Providing new capacity is almost wholly dependent on having suitable void space and the right geological conditions.

12.25 Much of Medway sits on chalk, a highly permeable rock, unsuitable for non-inert and hazardous waste disposal. However chalk quarries can and have been restored using inert materials. The Hoo Peninsula, on the other hand, is overlain with London Clay and this impermeable material is well suited for the landfilling of non-inert and hazardous materials that cannot be disposed of in any other way. However there are no existing voids so any provision would either involve the creation of new void space by extraction of cover material or re-profiling land by raising its natural contours or a combination of the two approaches.

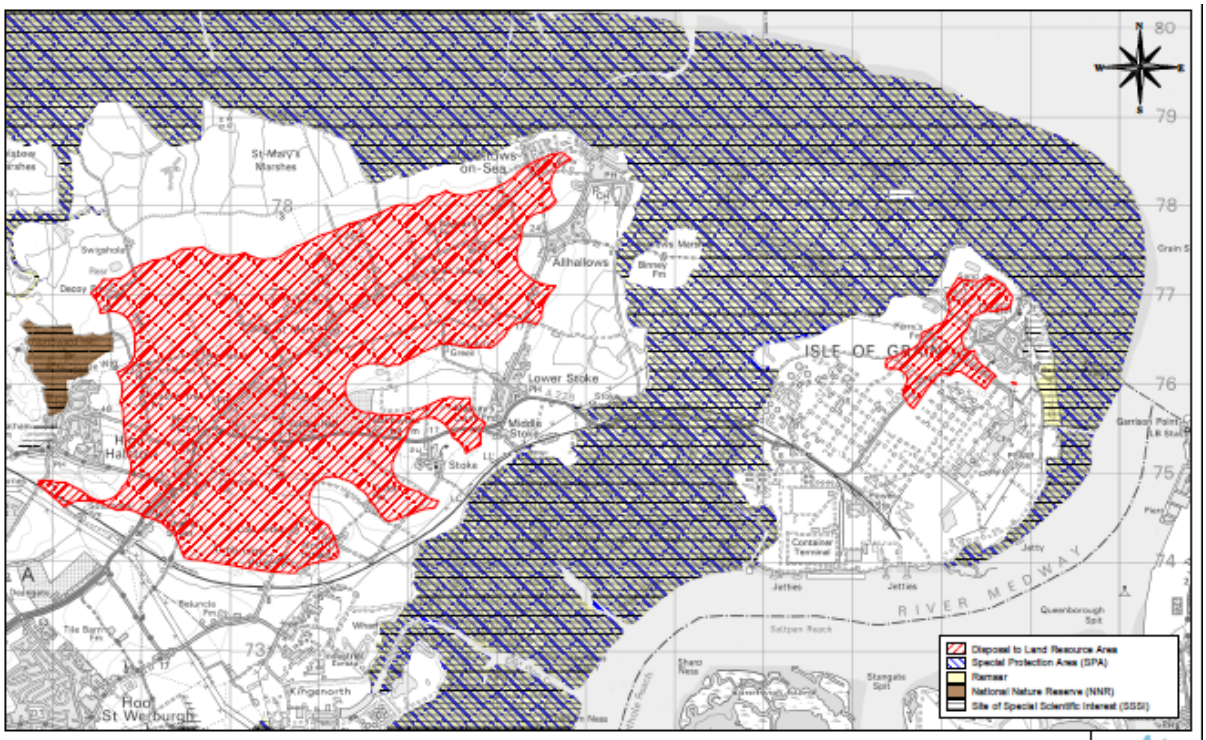
12.26 Due to the limited local market for the creation of new void space and the remoteness of the Hoo Peninsula to the wider market, no specific allocations for new landfill or land-raising facilities are proposed; however appropriate criteria for determining any proposals that may come forward in this area are provided.

Policy MWE9: Waste disposal to land

Proposals for the creation of void space or land-raising to facilitate a disposal facility for non-inert or hazardous waste located within the areas referred to as the Disposal to Land Resource Areas on the Hoo Peninsula and Isle of Grain will be assessed against the following criteria:

- Impact of development on rural landscape character and local distinctiveness;
- Other local impacts, including on residential amenity, being acceptable;

- The site being well related to the primary road network and with suitable site access and egress arrangements, and that impacts on the transport network are acceptable. Opportunities for transport by rail and water are encouraged;
- It being clearly demonstrated that the material to be deposited cannot be reasonably disposed of in any other way (that is that they are irreducible residues);
- That the facility will handle a high proportion of such waste arising within Medway and the immediately surrounding area to ensure a sustainable pattern of disposal;
- Unless a specific needs case can be demonstrated, that wastes to be deposited do not involve a road haulage distance of more than 50 miles;
- That all the reasonable requirements of the Environment Agency can be satisfied; and
- There being a clear programme and time limit for the operation proposed and satisfactory provision for the restoration and after-use of the site.



Waste Water Treatment Works

12.27 Waste water generally comprises surface water runoff, water discharged into the sewers and waste water that is resultant from other industrial and commercial processes that is then collected in sewers and transferred to waste water treatment plants. Here it is processed and treated, resulting in a reusable sewage sludge and effluent.

12.28 A range of works for the treatment of water can be undertaken without planning permission, however proposals for new and extensions to existing waste water treatment and disposal works generally require planning permission. Due to the necessity to construct facilities that are able to connect to the existing waste water

network, exceptions to the locational requirements set out in the waste management planning policiesmay be appropriate.

12.29 Whilst there is current capacity within Medway for the treatment of waste water, this may diminish during the plan period in-line with growth in the area. It is therefore anticipated that new, or extensions to the existing waste water facilities may be required to meet the need.

Policy MWE10: Waste Water Treatment Works

Proposals for the development of new, or the extension to existing waste water treatment works, sewage treatment and disposal facilities will be permitted in sustainable locations where there is a proven need for the proposed facility, and development does not conflict with the need to safeguard the environment and does not create unacceptable impacts on amenity.

Question MWE2:

Do the proposed policies MWE6-MWE10 represent the most sustainable approach to managing Medway's waste?

What do you consider would represent a sound alternative strategy for waste management in the Medway Local Plan?

Energy & Renewables

12.30 Medway is of national significance for power generation, electricity and aviation fuel distribution and Liquefied Natural Gas (LNG) importation.

12.31 Power stations located at Damhead Creek and the Isle of Grain have a combined installed capacity of 3GW.[5] This represents almost half of the installed capacity for the South East region and 5 per cent of the UK.[6] Damhead Creek has planning permission for a significant expansion in generating capacity.

12.32 The Grain LNG terminal is the largest in Europe and eighth largest in the world, with plans for further expansion.[7] The terminal has a vast regasification capacity and a ship reloading facility to help meet high export demand to Europe and lucrative international markets, having received seven cargoes in 2017, including the first shipments from the US and Russia. [8,9] Global LNG supplies are expected to increase

[5]Department for Business, Energy & Industrial Strategy: Power Stations in the United Kingdom (operational at the end of May 2017), https://www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy

[6] – *Figures derived by analysing data for conventional forms of energy for the South East and England (i.e. coal, oil, natural gas and nuclear power generation)*

[7] GrainIng, http://grainlng.com/

[8] Financial Times, *'UK gets first big shipment of US liquefied natural gas',* 2017, (online), Available at: https://www.ft.com/content/f7ea9416-616e-11e7-8814-0ac7eb84e5f1.

substantially, making this a competitive fuel source for various purposes. LNG is considered a vital part of the energy mix, given the reduction of domestic gas production.[10]

12.33 Various pipelines and cables forming part of the national energy supply network also cross the Medway area, including the two-way electrical inter-connector (BritNed) linking Grain and the Netherlands. Aviation fuel is also imported, stored and distributed from Grain.

12.34 The proximity of power stations to the proposed expansion of Hoo suggests there is potential for large scale district heating utilising waste heat from power plants. Previous initial feasibility studies in relation to Kingsnorth indicated a scale of opportunity unique in the UK. This would seemingly help to ensure that Hoo is a sustainable location for growth. New policy may also seek to establish a mechanism to target existing buildings as well as new development, for example through a dedicated fund for off-site mitigation in lieu of on-site provision.

12.35 Medway's contribution to national energy supply and security will represent a strategic priority in the new Local Plan. The proposed policies will encourage future opportunities for new power generation and energy storage, especially where this secures investment in the Grain freight line.

Energy and Renewables

12.36 The vision clearly states that Medway's growth will promote a low carbon economy, seeking to address and mitigate climate change, while the provision of quality, effective infrastructure represents a strategic objective.

12.37 National planning policy requires Local Plans to "support existing business sectors, taking account of whether they are expanding or contracting and, where possible, identify and plan for new or emerging sectors likely to locate in their area. Policies should be flexible enough to accommodate needs not anticipated in the plan and to allow a rapid response to changes in economic circumstances."[11]

12.38 In planning for renewable energy, Local Plans should to take a positive approach by identifying suitable areas for renewable energy generation and its supporting infrastructure, and by maximising the opportunities for community-led and decentralised energy production.[12]

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9 Financial Times, *'First ever shipment of Russian gas unlikely to remain in UK for long',* 2017, Available at: https://www.theguardian.com/business/2017/dec/29/russian-liquified-natural-gas-shipment-unlikely-remain-uk

10 Financial Times, https://www.ft.com/content/6fc45d4e-dfed-11e7-8f9f-de1c2175f5ce

11 Department for Communities and Local Government, *'National Planning Policy Framework'*, Section 1, Paragraph 21, pg.6, 2015 Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

12 Department for Communities and Local Government, *'National Planning Policy Framework'*, Section 10, Paragraph 97, pg 22, 2015 Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

12.39 A Ministerial Statement, dated 28 June 2015, states that proposals for wind energy development should only be granted planning permission if the development site is in an area identified as suitable for wind energy development in a Local or Neighbourhood Plan; and, following consultation, it can be demonstrated that the planning impacts identified by affected local communities have been fully addressed.

12.40 Medway commissioned a Renewable Energy Capacity Study in 2010.[13] Although this document is somewhat dated and predates current national planning policy, it nonetheless provides a comprehensive assessment of a baseline and opportunities for renewable energy. This can be supplemented with the government's mapping tool to help identify locations with opportunities for heat supply.[14]

12.41 The renewable energy market was considered to be suppressed at the time of reporting; however, the document stated that policy should be sufficiently flexible to address changing market conditions. Any policy demands should be accompanied by the onus of evidence of non-viability being provided by developers.

12.42 An Energy Opportunities Map identifies areas favourable for specific technologies in Medway. However, these indicative areas would appear to compromise potential site allocations for wider development.

12.43 The study identified potential district heating opportunities through power stations. Specifically, the study highlighted an exceptional opportunity to re-use waste heat through a district heating grid. Central Chatham benefits from the proximity of the hospital and several schools; there are potential synergies for a heat network. The Hoo Peninsula provides a distinct opportunity for large scale wind energy installations, subject to restrictions from built-up areas, environmental land designations, and other materials considerations. Small scale wind energy was considered to be viable on most of the Hoo Peninsula and in other areas to the south. Areas suitable for solar technologies were also identified.

Policy MWE11: Energy and Renewables

Proposals for energy developments, including any ancillary building or infrastructure, will be supported unless:

- the impact would compromise statutory designations where national planning policy restricts development;
- their scale, form, design, material and cumulative impacts is unacceptable to the local landscape or built environment, or loss of the best and most versatile agricultural land;
- any adverse impacts on the local community, economy, biodiversity or historic interests cannot be mitigated;

[13] Medway Council, 'Renewable Energy Capacity Study in 2010',available at: http://www.medway.gov.uk/pdf/Renewable%20Energy%20Capacity%20Study%202010.pdf

[14] Department for Business, Energy & Industrial Strategy, 'UK CHP Development map', Available at: http://chptools.decc.gov.uk/developmentmap/

The council will consider the designation of defined areas for renewable energy technologies through a Local Landscape Character Assessment.

The council will actively promote the development of local supply chains and other associated employment opportunities.

The council will explore opportunities for Combined Heat and Power Systems connected to district heating networks.

Low Carbon Development

12.44 The transition to a low carbon economy and the implementation of quality design standards are important elements of the vision and strategic objectives.

12.45 National policy is clear that planning has a key role in helping address climate change; this is central to the economic, social and environmental dimensions of sustainable development.[15] This also provides for improvements in the energy efficiency of existing buildings.[16]

12.46 The 2010 Renewable Energy Capacity Study[17] found that the largest source of emissions arise from domestic properties, reflecting the mix of building stock in Medway. The domestic and commercial emissions projections identified a limited level of impact on overall building stock emissions as a result of new-builds only. The study suggested that the transition to a low carbon future will therefore require policy measures that target existing buildings as well as new development.

12.47 The vast majority of applications in Medway are for small developments, i.e. for less than 10 dwellings or 1,000 sq m of non-residential floorspace. The cumulative impact in terms of increased energy demand and carbon emissions of these proposals will be significant. As a result, the study suggested the council consider the introduction of a policy to address the impact of extensions to existing dwellings to support Building Regulations.

12.48 The study also suggested that the council consider the establishment of a carbon fund for developers to make an off-site contribution where on-site carbon reduction measures are deemed unviable. For example, the fund could allow for targeting insulation improvements for poor performing stock or pooled towards investments in new infrastructure, such as a community heat network. This would require a clear

[15] Department for Communities and Local Government, *'National Planning Policy Framework'*, Section 10, Paragraph 93, pg 21, 2015 Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

[16] Department for Communities and Local Government, *'National Planning Policy Framework'*, Section 10, Paragraph 95, pg 22, 2015 Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

[17] http://www.medway.gov.uk/pdf/renewable_energy_capacity_study_may_2010.pdf

programme for implementation of off-site energy measures and an appropriate means of delivery.

Policy MWE12: Low Carbon Development

This policy seeks to implement an energy hierarchy by achieving energy efficiency first, before requiring the implementation of other forms of renewable energy generation on a larger scale.

Developers are required to follow the hierarchical approach set out below in achieving the energy and carbon dioxide emission requirements of the Building Regulations for all new residential development. New non-residential development is encouraged to follow the same approach.

1. To improve energy efficiency through thermal and fabric performance improvement measures.

2. Provide on-site renewable energy generation or on-site connected heating, or Combined Heat and Power (CHP) technologies, or Combined Cooling, Heat and Power (CCHP) systems.

3. The remainder of the carbon reduction targets to meet the Building Regulations targets should be met through suitable additional measures.

Developers are encouraged to meet higher standards than those required nationally, and pursue additional low carbon or renewable energy generation measures where practicable.

Compliance with this policy approach is required to be demonstrated through design and access statements submitted with a planning application.

Question MWE3:

Do the proposed policies MWE11- MWE12 represent the most sustainable approach to planning for energy in Medway?

What do you consider would represent a sound alternative strategy for energy in the Medway Local Plan?