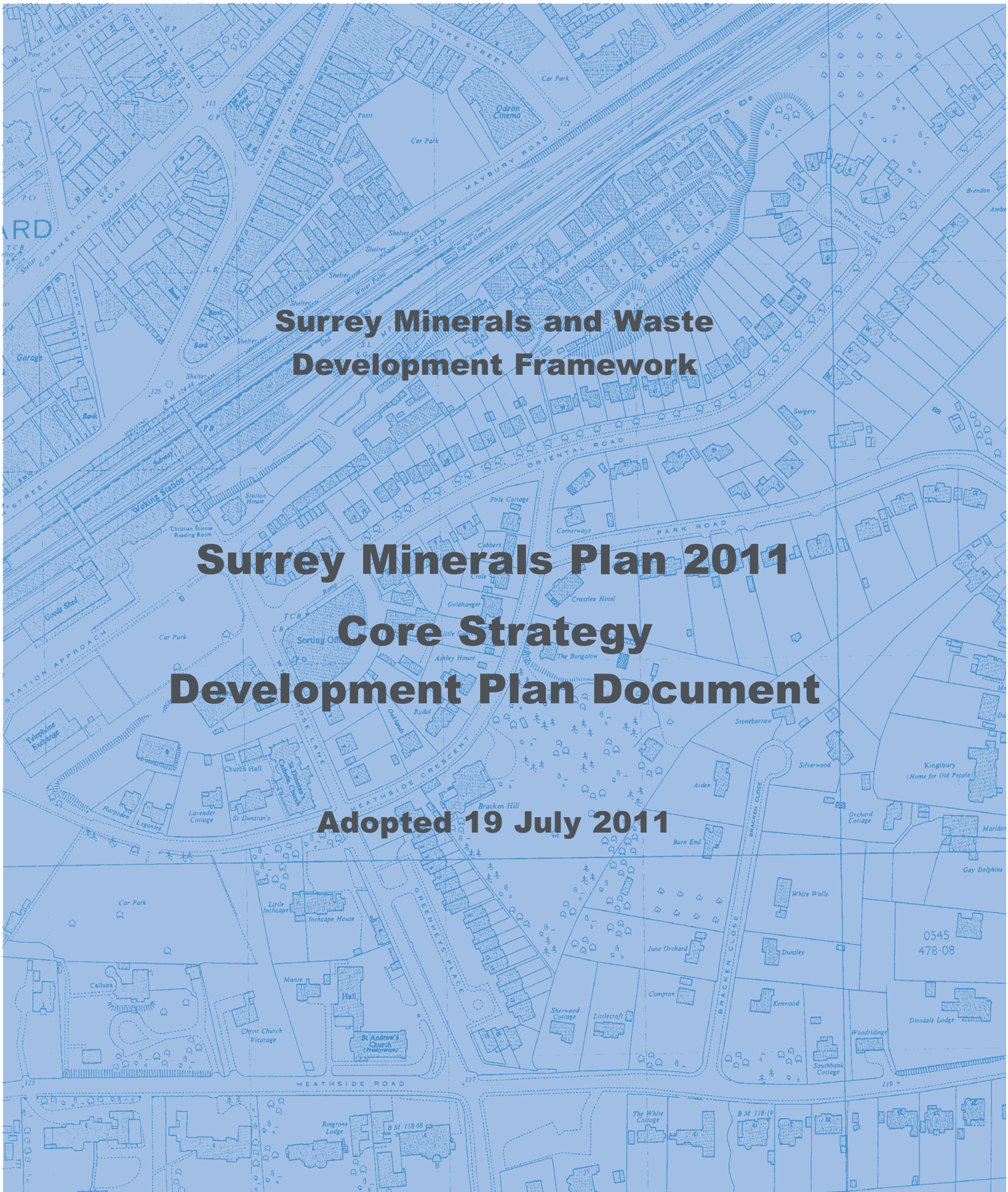

Surrey Minerals Plan 2011

Core Strategy Development Plan Document

Adopted 19 July 2011

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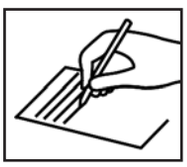

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Surrey Minerals Plan 2011

Core Strategy Development Plan Document

The *Minerals Core Strategy* is a development plan document as required by regulation 7(a) of the Town and Country Planning (Local Development) (England) Regulations 2004 (as amended).

Date of adoption: 19 July 2011

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Surrey Minerals Plan
Core Strategy Development Plan Document

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1 INTRODUCTION

1.1 The purpose of the minerals planning system is to provide a framework for meeting the need for minerals while being prudent in the use of natural resources and addressing other mineral development issues. A sustainable solution also requires the reconciliation of economic demands with the social and environmental implications of mineral extraction.

1.2 This document is the *Minerals Core Strategy Development Plan Document (DPD)* and provides strategic policies and site specific proposals for the period to 2026. This will be supplemented by two development plan documents, a *Primary Aggregates DPD* and an *Aggregates Recycling DPD*, identifying sites where development is expected to take place for those purposes.

1.3 The core strategy includes policies dealing with development management and consequently, where relevant, guidance is provided on the information required to support planning applications.

Definitions - mineral development and mineral working

1.4 The minerals plan applies to all types of mineral development and minerals in Surrey.

1.5 'Mineral development' applies to any development primarily involving the extraction, processing, storage, transportation or manufacture of minerals. It also includes development such as rail aggregate depots and the provision of facilities for aggregate recycling. Policies on these latter facilities are included in the *Surrey Waste Plan 2008* as well as this plan and proposals for new facilities will be made in the *Aggregates Recycling DPD,* a joint DPD.

1.6 'Mineral working' or 'mineral extraction' refer to the quarrying of minerals, and ancillary development (such as processing plants, site offices and weighbridges).

Minerals in Surrey

1.7 Minerals make a significant contribution to our quality of life. It is important that there is an adequate supply of aggregate minerals for building and repairing houses, roads, schools, and hospitals. Non-aggregate minerals serve industrial applications such as glass, paint and ceramics manufacture. Surrey uses considerable amounts of minerals in order to sustain its economy, most of which are imported as finished products. Energy minerals play a crucial role in the national economy.

1.8 The minerals industry – like farming or forestry – is a primary industry and provides raw materials for the national economy as well as providing local jobs. More significant are the jobs which rely indirectly on the minerals industry, such as those in construction, and the buildings and infrastructure that result. These make a significant contribution to the wealth and quality of life in Surrey and the UK.

1.9 For planning purposes minerals are divided into two broad categories: aggregates (bulk minerals used in building and construction like rock, sand and gravel); and non-aggregates (all the other types of minerals such as silica sand, clay and energy minerals – (oil and gas)). Minerals can be termed primary (dug from the ground), secondary (manufactured from other materials such as blast furnace slag) or recycled (for example, crushed concrete obtained from the demolition of buildings).

1.10 In Surrey there are a number of primary minerals present, including:

Aggregates	**Non-Aggregates**
Soft sand	Silica sand
Sharp sand and gravel	Clay
Oil and Gas	
Building stone	
Chalk	
Fuller's earth	
Peat	

The predominant minerals that are worked comprise the sands and gravels.

1.11 Soft sand – or building sand – is a relatively fine sand. It is used mainly for mortar and in asphalt for road construction and repair. The product serves a market area that extends into London and down towards the south coast.

1.12 Sharp sand and gravel – or concreting aggregates – are coarser products than building sand and make up the remainder of aggregate mineral resources in Surrey. These products are used predominantly for making concrete and aggregate from Surrey has traditionally served markets in adjoining parts of London as well as in the county. Concreting aggregates are generally purchased close to the point of use due to the cost of transportation.

1.13 Aggregate production in Surrey between 1997 and 2002 remained relatively stable but has declined subsequently. Figures published in the *Annual Monitoring Report*[1] show that sales in 2008 were 836,000tonnes (or 38%) below the average from 1998-2008. The downward trend in 2008 reflected the downturn in the economy.

1.14 Production of non-aggregate minerals is lower than for aggregate minerals. In the case of silica sand and brick clay, resources are of value to the national economy. Silica sand has a number of specialist uses including high quality glass making, the foundry industry, as a constituent of a variety of ceramic and other manufactured goods, and more generally for horticulture and recreational uses. Clay is used for brick manufacture.

[1] Annual Monitoring Report 2008/09 – Table 5.1 (SCC) Dec 2009

1.15 Oil and gas are also produced in modest quantities from the southern part of the county. Additional details about the geology of Surrey are set out in the background report *The Geology of Surrey*.[2]

National minerals planning policy

1.16 National minerals planning policy is set out in minerals policy statements (MPSs), which are gradually replacing mineral planning guidance notes (MPGs). These documents cover a number of different aspects of minerals planning and those most relevant to Surrey are summarised below.

General policy

1.17 *Minerals Policy Statement 1- Planning and Minerals (*CLG*)* 2006 sets out the overall policy approach to minerals planning in England and Wales. It provides overarching policy on:

- surveys of available resources;
- safeguarding resources and facilities for mineral development;
- protection of heritage and countryside where mineral development is proposed;
- maintaining supply and site selection;
- promoting bulk transportation of minerals where appropriate;
- environmental protection and management of operations;
- efficient use of mineral resources, including the use of substitute or recycled materials; and
- restoration and after care of sites.

It is supplemented by annexes on aggregates, brick clay, building stone and oil and gas.

1.18 *Minerals Policy Statement 2 – Controlling and mitigating the environmental effects of minerals extraction in England* (CLG) 2006 sets out the policies and considerations in relation to the environmental effects of mineral extraction that the government expects to be followed in determining applications. The main considerations are:

- the impacts of mineral working, such as visual intrusion, dewatering, water pollution, noise, dust and fine particulates, blasting and traffic;
- the impacts on landscape, agricultural land, soil resources, ecology and wildlife, including severance of landscape and habitat loss, and impacts on sites of nature conservation, archaeological and cultural heritage value;
- the benefits such as providing an adequate supply of minerals to the economy and hence for society (including construction materials needed for the development of national infrastructure and the creation of sustainable communities), creating job opportunities, and the scope for landscape, biodiversity and amenity improvements through mineral working and subsequent restoration; and
- the methods of control through planning conditions or agreements to ensure that impacts are kept to an acceptable minimum.

It is supplemented by annexes on dust and noise.

[2] Geology of Surrey (SCC) Nov 2009

Aggregates

1.19 *National and regional guidelines for aggregates provision in England, 2005-2020* (CLG) 2009, forecast a total demand for aggregates of around 4 billion tonnes over the 15 year period. The guidelines suggest the south-east region is to supply 12.18 million tonnes per annum (mtpa) of soft sand and concreting aggregate from land-won sources, some 8% lower than the guideline for 2001-2016.

1.20 *Minerals Policy Statement 1*[3] sets out national policy for aggregate minerals planning. This states that in preparing minerals plans, provision should be made for the local apportionment of aggregates set in regional spatial strategies (see paragraphs 1.24-28 below).

Non-aggregate minerals

1.21 Several mineral planning guidance notes have been produced which set out national policy in respect of particular minerals. The most important in relation to Surrey is *Minerals Planning Guidance Note 15 – Provision of silica sand in England* (CLG) 1996. This document provides guidance on how an adequate and steady supply of silica sand can be maintained at the best balance of social, environmental and economic cost. *Minerals Policy Statement 1*[4] gives advice on brick clay.

Oil and gas

1.22 *Minerals Policy Statement 1*[5] sets out national policy on planning control of land-based exploration, appraisal, development and extraction of oil and gas. This includes reference to underground storage of natural gas.

Restoration

1.23 *Minerals Planning Guidance Note 7 – Reclamation of mineral workings* (CLG) 1996 sets out the policies, consultations and conditions which are relevant to achieving effective reclamation of mineral workings. The guidance states that land taken for mineral workings should be reclaimed at the earliest opportunity, and to a standard suitable for the intended after use. Restoration and aftercare should provide a means to maintain – or enhance – the long term quality of land and landscapes taken for mineral extraction. This will be to the benefit of local communities and ensure that a valuable natural asset is passed on to future generations.

South east regional minerals planning policy

1.24 The south east region's mineral planning policy is set out in the South East Plan[6] or regional spatial strategy (RSS) approved in May 2009. The approach of the strategy is to meet identified need for mineral supply in the region but to do so by making significantly more efficient use of natural resources.

[3] MPS1 Annex 1 – Aggregates
[4] MPS1 Annex 2 – Brick clay
[5] MPS1 Annex 4 - On-shore oil and gas and underground storage of natural gas
[6] South East Plan (CLG) 2009 paras 10.59-10.100

1.25 The RSS plans for significant increases in the supply of recycled and secondary aggregates, imports and marine dredged aggregates, which will reduce the quantities of primary land-won sand and gravel to be extracted in the region. Mineral planning authorities in the south east are expected to make provision for sufficient aggregate production to meet forecast demand.

1.26 The RSS identifies the need for Surrey to plan for provision of 2.62mtpa of primary aggregates[7]. Although Policy M3 implies such provision should be applied across the plan period, it was derived from the national guidelines for the period 2001 to 2016 and was under review when the RSS was approved. A requirement to maintain a landbank of at least seven years of reserves with planning permission for land-won sand and gravel runs alongside this. The RSS also refers to the management of other minerals – notably for Surrey, silica sand and clay – and requirements for these are addressed in the core strategy.

1.27 Although the RSS was published in May 2009, a partial review of Policy M3 which provides guidance on aggregate requirements was published in March 2009[8]. The partial review looks at the way the demand for aggregates is allocated to mineral planning authorities (MPA) as well as proposing an overall requirement for 2010-2026. An examination in public of the partial review took place in October 2009 and the Panel Report was published in November 2009[9]. The Panel Report recommendation is that Surrey should provide on average 1.27mtpa of aggregates from 2010 to 2026 towards a regional total of 11.12mtpa (compared to the 12.18mtpa in paragraph 1.19 above).

1.28 The Panel Report recommendation was taken forward as proposed changes to the RSS in March 2010. Advice issued in July 2010 when a ministerial statement was published confirming the intention to revoke the RSS states that mineral planning authorities in the south east should work from the "Proposed Changes" of March 2010. Although the High Court subsequently overturned the revocation of the RSS in November 2010, the Secretary of State confirmed that the intended abolition of the RSS should be treated as a material consideration by decision makers.

Surrey's Sustainable Community Strategy

1.29 The Minerals Plan has been prepared with regard to revisions to the Surrey Sustainable Community Strategy. Draft revisions to the initial strategy, which are to be published early in 2010, form the basis of this section. The vision for 2020 continues to work towards sustaining the qualities for which Surrey is renowned – its quality of life, robust and competitive economy, respect for the environment and high standards of personal achievement. It also seeks to achieve greater support for disadvantaged and vulnerable people so that they share in success but also to achieve greater understanding of personal responsibilities and the role of communities and public services. Five key challenges are recognised:

- the need to tackle climate change
- the need to identify the limits of sustainable development in Surrey

[7] South East Plan Policy M3
[8] Review of Policy M3 – primary land-won aggregates and sub-regional apportionment (SEERA) 2009
[9] Report of the Panel – Partial Review of the Regional Spatial Strategy for the South East (PINS) 2009

- the need to ensure connectivity to advances in internet based technology
- the need for value for money in delivering public services
- an emerging political context of greater austerity where people are encouraged to participate in and influence local decision-making.

The strategy sets out the broad principles and an overall direction for the future of Surrey, which is then to be delivered through plans and programmes developed by thematic partnerships drawn from members of the Surrey Strategic Partnership.

1.30 The Strategy sets out ten priorities that will be the focus for delivery. Five thematic partnerships, working in conjunction with the district and borough local strategic partnerships, will lead delivery. The ten priorities are linked to measures, some of which are included in the Local Area Agreement for 2008-11. These generic priorities do not directly relate to issues within the scope of the minerals plan. However, the successful implementation of the minerals plan underwrites some of them. The minerals plan may need to be reviewed as the strategy evolves and if any relevant issues are introduced. The main areas where the minerals plan will assist in delivery of the strategy are set out below.

Economic development in Surrey

1.31 The minerals plan is able to support economic development across the county by providing reliable local sources of construction aggregates to support investment in buildings and infrastructure. The minerals plan will also support adoption of sustainable business practices through controls placed on mineral operators; and in the long-term, by seeking to make more efficient use of minerals, and increase the substitution of recycled and secondary aggregates for land-won minerals.

Housing, infrastructure and environment

1.32 The strategy seeks to reduce congestion in Surrey, and its impact on the economy and lifestyles. Because mineral related development generates local lorry traffic it will have an influence on the degree of success in achieving this objective. The minerals plan is able to support this objective by seeking alternatives to road-based transport where practicable, and through planning and legal controls placed on traffic generated by minerals development.

1.33 The high cost of housing in Surrey; difficulties for key workers and young adults in finding affordable housing (which also has implications for economic development); and the need to build developments that include infrastructure and that build communities; are all highlighted as important issues to be addressed. The minerals plan can support measures to resolve these problems by ensuring that a supply of aggregate minerals is available for housing and infrastructure.

1.34 Another aspect of this theme is seeking to help people achieve more sustainable lifestyles so there is less impact on the environment. The minerals plan can support this objective through reducing the use of minerals and encouraging more widespread use of alternatives to land-won minerals. This is a particularly challenging objective and will rely on effective co-ordination and partnership working.

1.35 The strategy also aspires to preserve and enhance Surrey's natural environment and its heritage whilst meeting the need for development. The impacts of mineral working can be significant in the short- to medium-term, but well planned mineral extraction can often lead to long-term benefits. The minerals plan, which steers new workings to areas which will have the least impacts, provides the basis for environmental controls during working, co-ordinates high quality restoration, and secures long-term management of land and creation of new habitats, will contribute to place-shaping and creating sustainable communities.

Safer and stronger communities

1.36 An important objective of the strategy is to encourage and facilitate active citizenship to strengthen communities. Stakeholder involvement has been an important part of the preparation of the minerals plan, as set out in the *Statement of Community Involvement* (SCC) 2006. The *Consultation Statement* (SCC) November 2009 summarises the various consultation stages that have taken place and the issues raised. The minerals plan indicates that in the implementation of specific proposals, liaison groups involving local communities are an accepted element of good practice, giving further opportunity to contribute to this priority.

Other Community Strategies

1.37 The Core Strategy will be a key mechanism in delivering aspects of Community Strategies related to minerals and waste planning. The District Community Strategies across Surrey have been considered for the issues they address that are likely to be relevant to minerals planning. The following points illustrate the relevant issues and actions contained in the Community Strategies.

- Reduce transport impacts by encouraging and developing more sustainable methods of transport and reducing pollution
- Protect landscapes and biodiversity
- Protect and enhance the built environment and heritage assets
- Mitigate and adapt to climate change.

Surrey Local Transport Plan

1.38 The *Surrey Local Transport Plan (second edition)* (SCC) 2006 outlines the county council's continuing strategy to create an efficient and sustainable transport system, and sets a framework covering the early part of the plan period. The minerals plan will affect three of the transport plan's five objectives: tackling congestion to limit delays; improving road safety and security; and enhancing the environment and quality of life. Although the proposals within the plan can be seen as having potentially negative impacts on these objectives, development of the preferred areas will be subject to detailed transport assessment aimed at mitigating any significant adverse impacts.

Relationship between the plan and other strategies

1.39 *Diagram 1* shows the relationship between the *Core Strategy DPD*, the Minerals and Waste Development Framework (MWDF), national policy, other relevant

plans and strategies and Surrey Borough/District Local Development Frameworks (LDFs).

Climate Change

1.40 The county council is committed through its *Climate Change Strategy* (SCC) 2008 to helping communities and businesses in Surrey to act on climate change in their own work and lives. The minerals plan is specific to a single subject and consequently may only make a limited contribution to this critical objective.

1.41 *Planning Policy Statement 1* (PPS1) advises planning authorities in preparing local development documents to provide a framework that promotes and encourages renewable and low-carbon energy generation. This is beyond the scope of a minerals plan.

1.42 In selecting land for development and for what type and intensity, planning authorities are required to assess the consistency of such areas with the policies of PPS1. The geographic extent of mineral resources limits the selection of preferred areas for mineral development. Relevant issues assessed in drawing up potential mineral zones were:

- adequacy of local infrastructure in terms of road access and capacity;
- flood risk given that sands and gravels in particular are often located in floodplains, a point recognised in *Planning Policy Statement 25*; and
- the effects on local biodiversity, heritage, open space and green infrastructure as restoration and after-use of land may make a positive contribution to mitigation of climate change impacts.

1.43 Transport emissions are a key issue as in Surrey most minerals are moved by road. The choice of locations readily accessible to the market and by the same token a spread of locations, is likely to lead overall to lower vehicle kilometres and emissions. Operators' vehicle fleets may also assist, both through regular maintenance and timely replacement with fuel efficient and/or low emission vehicles, although the plan has no direct control here. The transport assessment normally required at the project stage will be expected to provide further information on the consideration given to sustainable transport of materials.

1.44 The use of recycled and secondary aggregates in place of primary aggregates may lead to a reduction in carbon dioxide emissions. The extent of benefits will vary dependent on particular circumstances of each case. The co-location of temporary aggregate recycling facilities at mineral workings reduces the need to double handle material used in restoration.

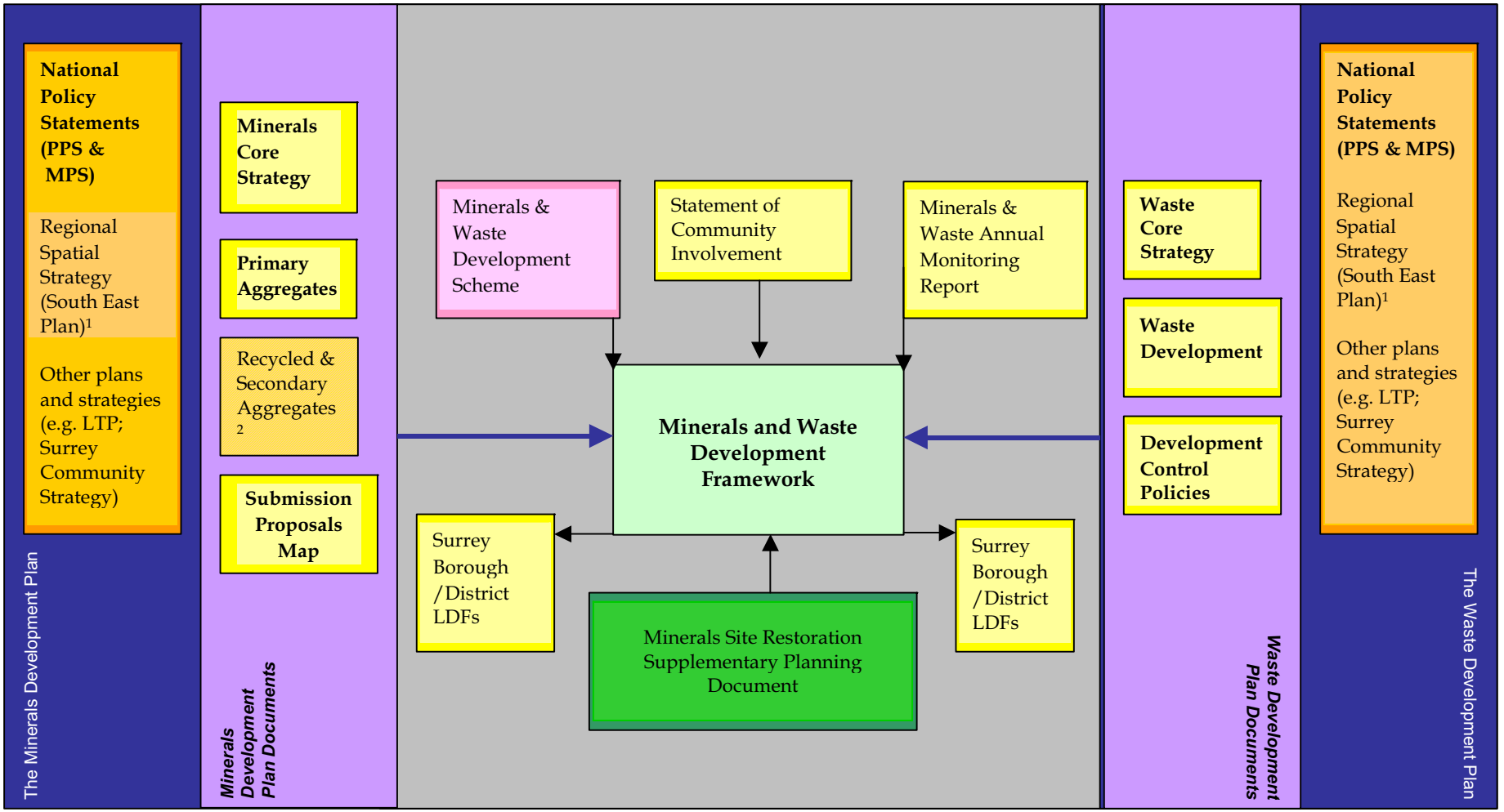
1.45 It is expected that the demand for recycled and secondary aggregates will grow in the future as more sustainable construction methods are adopted by the construction industry. The plan supports the adoption of good practice in sustainable construction and the benefits that this can bring.

Plans and strategies of neighbouring authorities

1.46 The mineral planning authorities that abut Surrey are at different stages in the preparation of their LDFs. Only Hampshire County Council has an adopted

core strategy and this does not contain any specific proposals that would impact on Surrey. There are cross-boundary implications related to the location and use of rail aggregate depots. Existing sites adjoin Surrey in Colnbrook, Crawley, Purley, and Tolworth and are likely to have markets which extend into Surrey. One specific cross-boundary issue concerns an area of clay extraction in West Sussex that abuts the southern boundary of Surrey. Permitted reserves are declining in West Sussex and an area of search has been identified for a possible extension to this site into Surrey.

Diagram 1 Relationship between the Minerals and Waste Development Framework and other strategies



Key [1] Joint minerals and waste DPD

[2] Under the Localism Act national PPSs are to be replaced by a National Planning Policy Framework and Regional Strategies will be abolished

The challenges

1.47 Minerals planning raises a number of very contentious issues, often related to the fact that minerals can only be worked where they occur. Most of the accessible mineral resources in Surrey are located close to housing or to areas of high ecological, landscape or recreational value. Maintaining an adequate supply of minerals without having a significant impact upon communities and the environment is a challenge that the plan seeks to address[9].

1.48 Whilst the benefits of mineral development are enjoyed by society as a whole, the adverse effects are more concentrated on communities close to active mineral workings or other forms of development. North west Surrey has been subject to extensive gravel extraction in the past and is the most densely populated part of the county. Local communities are concerned that continued extraction will have cumulative impacts on the environment, on traffic congestion and on air quality. Similar concerns arise in the east of the county between Redhill and Kent where extraction of sand and Fuller's earth has taken place. However, economically viable resources of aggregates are concentrated in north west Surrey and construction sand resources remain in east Surrey outside the Surrey Hills Area of Outstanding Natural Beauty. Consideration of potential cumulative impacts will be a requirement of development management.

1.49 The problems of traffic and road congestion in Surrey are evident from the high levels of traffic experienced across the road network when compared to other parts of the country[10]. Evidence suggests that congestion appears to be increasing even though flows are stabilising. Mineral development produces the raw materials for road construction and maintenance but it also generates lorry traffic in the transport of mineral products to their point of use. Sites remote from centres of population can generate concerns related to creating lorry traffic on rural roads or changes to valued landscape features or habitats.

1.50 Many parts of Surrey are subject to environmental designations, including extensive areas of high landscape quality (two Areas of Outstanding Natural Beauty and adjacent Areas of Great Landscape Value), areas and sites giving evidence of our historic environment and ecological sites of international (Special Protection Areas and Special Areas of Conservation) and national importance. Mineral working has historically occurred in these areas and it is necessary to determine whether continued working is justified and if so how any adverse effects could be avoided or mitigated.

1.51 The resources of aggregates in Surrey suitable for extraction are diminishing because of past extraction and the constraints affecting the remaining reserves. A comprehensive geological desk study and site assessment carried out in 2004[11] showed that identifying significant further aggregates resources suitable for extraction was likely to be difficult. The minerals plan must aim to meet demand but it is also important to be realistic about the level of resources that can be worked without significant impact on local communities or interests of acknowledged national importance.

[9] Surrey Minerals Plan - Consultation Statement (SCC) 2009

[10] Transport Statistics for Surrey: Movement Monitoring Report 2007/08 (SCC)

[11] Assessment of Potential Minerals Zones for Extraction of Sand and Gravel in Surrey (SCC) 2004

1.52 The plan now looks forward to 2026 and in the case of non-aggregate minerals, with the exception of silica sand, it is evident that resources are adequate to meet any foreseeable demand[12]. However, in relation to silica sand, additional resources occur in the county but a significant part of the resource lies within the Surrey Hills Area of Outstanding Natural Beauty. The plan will therefore need to reconcile the conflict between demand for a scarce mineral and potential effects of mineral working within a protected landscape.

1.53 The plan identifies that the resource position for aggregate minerals, particularly for concreting aggregate, will become critical over the course of the plan period[13]. Surrey has been a significant source of aggregates within the south east for many years but this cannot be sustained indefinitely. Most of the resource for concreting aggregate comes from the valley gravels in the Lower Thames. These resources are approaching exhaustion and there are no viable alternatives within the county. This means that it is becoming increasingly difficult to identify any flexibility, in terms of alternative opportunities from which demand for concreting aggregate may be met.

1.54 In the case of other aggregate minerals, in Surrey this means soft sand generally extracted from the Lower Greensand Formation, the resource position is more favourable, but as with silica sand there is a potential conflict with landscape protection. Extensive areas of the Lower Greensand Formation lie within the Surrey Hills Area of Outstanding Natural Beauty. Resources do remain outside of the protected landscapes so there is some greater flexibility to meet demand, although other constraints may make it impractical to work some of these resources.

[12] Non-aggregate minerals background report (SCC) 2009
[13] Primary aggregates land assessment report (SCC) 2009

2 VISION AND OBJECTIVES

The vision

2.1 The vision for the minerals plan has evolved from consideration of national and regional guidance, community strategies across Surrey, consultation responses received during its preparation, and feedback from the sustainability appraisal.

2.2 The thrust of the vision is that

exploitation of mineral resources and other mineral development in Surrey should be efficient, environmentally responsible, adequate, as far as possible, to meet the needs of the economy and should not impose significant adverse impacts on the community

and this is encompassed in the following

- reducing demand for primary minerals by encouraging efficient use of resources and recycled materials, where appropriate, in preference to excavating new resources;
- safeguarding mineral resources and mineral infrastructure (sites and facilities) from other development;
- providing for future mineral working adequate to meet national and regional requirements where resources are available to do this without significant adverse impacts on the environment or local community;
- planning for mineral development without significant adverse impacts on the environment or local community through careful selection of sites;
- selecting preferred areas for mineral development so as to minimise as far as possible the impacts associated with transporting minerals, including unnecessary carbon dioxide (CO^2) generation, and any other cumulative impacts;
- working with the community and industry to ensure that the social and environmental effects of mineral and aggregates recycling development are suitably addressed; and
- adopting an holistic approach to ensure that mineral sites are worked and restored to the highest standards, that restoration and management proposals are considered at the outset and that climate change mitigation is incorporated where possible.

Objectives

2.3 The objectives set out below describe the plan's overall approach. The objectives require the county council to work in partnership with other organisations, not least the minerals industry and local communities, in order to ensure they are achieved.

Objective 1: Reduce demand for minerals by

O1.1 increasing the supply of recycled, and, where practicable, secondary aggregates;

O1.2 encouraging the sustainable use and recycling of minerals; and

O1.3 encouraging the use of substitute materials in construction.

Objective 2: Safeguard the supply of minerals by

O2.1 conserving important mineral resources for use by future generations;

O2.2 ensuring that important mineral resources and sites for mineral development are not sterilised by other development;

O2.3 ensuring prior extraction of mineral resources, where possible, if land is to be sterilised by other development; and

O2.4 conserving scarce and high quality mineral resources by ensuring that they are not used for purposes where lower grade, secondary or recycled materials could be used instead.

Objective 3: Meet the need for minerals by

O3.1 seeking to ensure that sufficient land is identified to enable the regional requirement for aggregates to be met and to provide appropriate landbanks for silica sand and clay;

O3.2 establishing criteria that define the circumstances and locations where working of other non-aggregate minerals will be acceptable; and

O3.3 seeking to ensure that sufficient land is identified for recycling facilities to meet the need for aggregates recycling.

Objective 4: Address adverse impacts from mineral development on communities and the environment by

O4.1 identifying preferred areas for mineral development that have been selected following assessment of their potential impacts on local communities and their quality of life or on the integrity, character and quality of the environment, when considering Surrey as a whole;

O4.2 establishing planning policies that will ensure potential impacts on local communities and the environment are identified and suitably mitigated by applying the appropriate conditions to planning permissions;

O4.3 protecting the integrity of internationally designated sites and sites and features that have been designated as having national importance other than where exceptional circumstances can be demonstrated;

O4.4 working with communities to ensure local issues are understood and addressed through the planning system; and

O4.5 securing sound practices during the operation of mineral development and restoration of mineral workings, and ensuring that developments comply with conditions attached to their planning permission through rigorous monitoring and enforcement.

Objective 5: Address adverse impacts from the transportation of minerals by

O5.1 ensuring the potential impacts from transportation are considered when identifying areas for future mineral development;

O5.2 establishing planning policies that will ensure the impacts from the transportation of minerals are assessed and suitable mitigation provided, where necessary;

O5.3 securing measures to ensure that minerals can be transported safely;

O5.4 encouraging the use of alternative modes of transportation to road where possible; and

O5.5 safeguarding existing rail depots and enabling new ones to be provided if need is demonstrated, to facilitate a long-term shift away from the bulk transportation of minerals by road.

Objective 6: Restore mineral workings to the highest standards by

O6.1 promoting an holistic approach to mineral working, where progressive restoration is integrated into the management and phasing of the mineral extraction;

O6.2 ensuring that mineral workings are restored in a timely way, consistent with Green Belt policy and objectives, and to a state that is consistent with – and enhances – local social and environmental character, incorporating priority habitats and flood alleviation capacity, where appropriate; and

O6.3 ensuring that land used for mineral working is restored to an appropriate future use and managed so that it brings value to the environment and local community.

3 THE SPATIAL STRATEGY

3.1 One of the key aspects of the planning system is to ensure that the spatial aspects of development are properly considered. In the case of minerals planning, any strategy is constrained by the fact that minerals can only be worked where they occur and some resources are sterilised by other development. Current mineral production in Surrey is centred on the production of aggregates for construction and civil engineering, brick clay for building, silica sand for industrial purposes and energy minerals.

3.2 The spatial strategy identifies where mineral development is to take place within the plan period. The key diagram shows the relationship between areas for future mineral development, existing urban areas and key environmental designations.

Spatial Resource and Production Considerations

Primary minerals

3.3 Production of sharp sand and gravel for concreting aggregate is concentrated in the Thames valley in north west Surrey and the lower reaches of the Wey valley. Soft sand working for building purposes is restricted to the fairly narrow outcrop of the Lower Greensand Formation which runs east-west across the centre of the county. Existing sand workings are found in the east of the county near Betchworth, Bletchingley and Oxted and in the west around Farnham. The silica sand resource also occurs in the Lower Greensand Formation but is more geographically restricted, occurring from east of Dorking to west of Godstone. The brick and tile clay resource comprises the Wealden clays which outcrop extensively across the southern part of the county. Resources of energy minerals are confined to the Weald Basin.

Aggregate minerals

3.4 Terrace gravels associated with the River Thames are the main resource of economically workable sharp sand and gravel in the county and have long supplied Surrey and adjoining parts of Greater London. North west Surrey is densely populated and the potential impact of continued extraction on the quality of life for local communities is a principal criterion in determining preferred areas of working. Another important issue is the presence of the South West London Water Bodies Special Protection Area /Ramsar site and the need to ensure that future mineral working is compatible with retaining the integrity of the designated areas. Geological data[14] also indicates the presence of resources along the Rivers Wey and Mole and their associated tributaries and along the Rivers Blackwater and Eden. With the exception of parts of the Wey and Blackwater valleys, these have not been commercially exploited in recent times.

3.5 These valley gravels are primarily located in areas where the risk of fluvial flooding is high. The sequential approach to development advocated in *PPS25*

[14] Mineral Resource Information in support of National, Regional and Local Planning – Surrey (BGS) 2003

Development and Flood Risk would mean that resources to underpin continued production of sharp sand and gravel would be severely restricted. The plan is supported by a flood risk assessment but project level flood risk assessment to consider the potential risk from all sources of flooding will need to be undertaken when detailed schemes of working are known.

3.6 Sharp sand and gravel extraction will continue to be concentrated in the Lower Thames valley, notably in the boroughs of Runnymede and Spelthorne, through the identification of preferred areas in the *Primary Aggregates DPD*. However, it is becoming increasingly difficult to identify areas where impacts on communities or the environment are capable of being suitably mitigated. The remaining resources in this area are safeguarded but have not been identified as preferred areas because the likely significant impact of their working on communities and the environment is considered unacceptable.

3.7 Soft sand has been produced from three locations within the Lower Greensand Formation. These areas are around Farnham, Betchworth and to the east of Redhill. In addition to the impacts on the local community, landscape and transport considerations are significant with respect to the working of this mineral. The resource is located either within or in close proximity to the Surrey Hills Area of Outstanding Natural Beauty and the associated Areas of Great Landscape Value. Many parts of the outcrop lie in areas that are distinctly rural in character with a road network incapable of serving mineral extraction. One preferred area for soft sand extraction has been identified east of Redhill in the *Primary Aggregates DPD*. There is a presumption against major new workings of soft sand within the Surrey Hills Area of Outstanding Natural Beauty, because it is not so scarce as to justify sufficient need (in the wider public interest) to outweigh the objectives to conserve the quality and distinctiveness of this protected landscape.

Non aggregate minerals

Brick and Tile Clay

3.8 Weald Clay outcrops extensively across the southern part of the county and clay working was previously widespread. Three brick production sites remain[15], all located in the south central part of the county:

- Clockhouse Brickworks, Capel (Hanson Brick);
- Ewhurst Brickworks, Walliswood (Wienerberger); and
- South Holmwood Brickworks, Beare Green (Ibstock Brick).

The three companies are responsible, collectively, for much of UK brick production. There is one site where working ceased in 2008 and three dormant permissions for clay working, all south of the North Downs. A further clay working site adjoins the county boundary with West Sussex at Rudgwick.

3.9 National and regional guidance on brick clay recognises the need for land use policies which support continued production on existing sites. The rationalisation of the industry and the concentration of production into fewer but larger units brings with it greater investment in plant and machinery and a

[15] Non-aggregate minerals background report (SCC) 2009

need for security of clay supply to underpin such investment. A landbank of at least 25 years is recommended to enable production to be sustained and provide a platform for investment in new technology.

3.10 At present, permitted reserves at the three production sites are adequate to meet the landbank requirement. Each of the companies has indicated the intention to continue production within Surrey.

3.11 The current production locations are outside the parts of the resource which lie within the Surrey Hills Area of Outstanding Natural Beauty. Areas of ancient woodland are a feature of this part of the county and this, together with geological interests which have been unearthed as a consequence of clay extraction, are the chief environmental issues related to working. Access to principal roads for transport of the finished product is another spatial consideration.

Silica sand

3.12 Silica sand has a number of specialist uses. It is the raw material for the glass and foundry casting industries and is used in ceramics, in chemical manufacture and for water filtration. It is also used by the horticultural industry, for equestrian purposes and as play sand. It is found in relatively few areas of the UK and is consequently regarded as a mineral of national importance.

3.13 Deposits of silica sand occur in the upper reaches of the Lower Greensand Formation in the eastern half of the county from Betchworth to Godstone. Some of the Surrey resources are amongst the purest in the country having low levels of iron oxide and alumina. This makes them particularly suitable for the manufacture of clear glass and sodium silicate[16].

3.14 The two existing workings in the county, at Bletchingley and Buckland lie within or abut areas of high landscape quality, with the former being partly within the Surrey Hills Area of Outstanding Natural Beauty. The permitted reserves at both sites are inadequate to maintain past rates of production for ten years, a requirement set in national and regional policy. Information on known resources indicates that economically viable deposits remain near to both the Bletchingley and the Buckland sites. An additional area of resource has been identified at Chilmead Farm, Nutfield Marsh.

3.15 Silica sand resources, although being part of the Lower Greensand Formation, are much more restricted in extent than the soft sand resource[17]. This limits the choice of alternative locations for future production. The implications of mineral working within the Surrey Hills Area of Oustanding Natural Beauty are a primary consideration as the resource at Bletchingley extends inside the designated area.

[16] Assessment of Pendell Farm Preferred Area for Silica Sand (GWP) 2009

[17] Silica Sand background report (SCC) 2009

Oil and gas

3.16 Government licenses the exploration, appraisal and production of hydrocarbons. The Weald Basin is one of only two locations in southern England where commercial deposits of hydrocarbons are thought to exist. In Surrey, licences have been issued predominantly to the south of the North Downs.

3.17 Since the 1950s exploration and appraisal has occurred fairly widely across the southern part of the county[18]. There are currently two operational sites producing oil at Felton's Farm, Brockham and Palmers Wood, Godstone. The oilfield at Palmers Wood is coming towards the end of its productive life, but production at Felton's Farm is expected to continue beyond the end of the plan period.

3.18 Exploratory boreholes were established in the 1980s and 1960s at Albury and Kings Farm, South Godstone (the Bletchingley field) respectively which identified natural gas deposits. The gasfield at Albury has been producing for some years.

3.19 Further exploration and appraisal activity within the licensed areas is likely as UK offshore resources decline. It is not possible to identify in advance locations within the licensed areas where proposals will be forthcoming and each must be treated on its merits. A number of the licensed areas lie wholly or partially within the Surrey Hills Area of Outstanding Natural Beauty and also include other designated sites of biodiversity or heritage interest. The implications for conservation of these assets must be set against the need for energy and the effect of proposals for exploration, appraisal or production.

3.20 The Government's report on the Energy Review: *Meeting the Energy Challenge* published in July 2006 included potential underground gas storage areas. Two locations in Surrey, Albury and Bletchingley, were amongst a relatively small number of potential onshore locations where geological conditions were thought suitable. At Albury, the Secretary of State (Department for Business, Enterprise and Regulatory Reform) has agreed that an application for storage authorisation under the Gas Act 1965 can be made for the existing gas reservoir, Albury 1.

3.21 An application for a new appraisal well at the existing Kings Farm, South Godstone (the Bletchingley field) well site was permitted in May 2007 and this is testing the suitability of the gasfield for underground storage of gas. In 2008 a proposal to retain the Albury 1 well site and associated infrastructure and to drill and test two additional appraisal boreholes was permitted. The suitability of this site (Albury 2) for underground gas storage will be assessed through the appraisal.

Other non-aggregate minerals

3.22 Relatively small amounts of chalk are extracted at Oxted Quarry, but there is no production of fuller's earth or peat. It is not anticipated that there will be significant demand for any of these minerals in the plan period. Working of

[18] Non-aggregate minerals background report (SCC) 2009

building stone at Pitch Hill Quarry has recently ceased bringing to an end quarrying of sandstone within the Surrey Hills Area of Outstanding Natural Beauty. These sandstones contribute to the character and local distinctiveness of the area and continued low levels of demand for building conservation can be expected[19].

Recycled aggregates

3.23 A key consideration in developing a spatial strategy for the location of aggregates recycling facilities is transportation of the materials before and after processing. The strategy is driven by the need to reduce haulage distances and the associated emissions of lorry movements.

3.24 In the overall context of making provision in the urban areas, the most urbanised area of the county is north west Surrey. This is where the most aggregate recycling activity currently takes place. Outside of north west Surrey, Guildford, Woking and Reigate/Redhill are the largest urban areas. The smaller towns of Camberley, Epsom, Staines, Dorking, Farnham, Godalming and Walton-on-Thames are also expected to represent a focus for development activity in Surrey.

3.25 The preferred location for aggregates recycling is therefore within the larger urban areas of the county. However, there is limited availability of suitable locations for this type of development within the urban areas and competition from other land uses. It is necessary therefore to seek to identify suitably located sites that lie outside the urban areas of the county[20].

3.26 Rail aggregate depots allow for the import of aggregates into the county from further afield. There are two depots at present, one at Woking which is fully operational and the other at Salfords, which needs considerable investment to bring it up to current requirements. These depots, and other existing depots which adjoin Surrey, provide a network well related to the main urban areas of the county[21].

Policy MC1 – Spatial strategy – location of mineral development in Surrey

Mineral extraction of concreting aggregates will be concentrated on the river terrace gravels of the Thames in north west Surrey. Mineral extraction for soft sand will be concentrated on land within the Lower Greensand Formation in south west and eastern Surrey. Preferred areas for future sand and gravel production are identified in the *Primary Aggregates DPD*.

Resources of silica sand are restricted to specific parts of the Folkestone Formation on the eastern side of the county. A preferred area for silica sand working adjoins the existing working north of Bletchingley and an associated area of search provides a potential resource for further extraction at the end of the plan period should this be required. A second area of search at Chilmead Farm, east of Redhill, has been identified.

[19] Non-aggregate minerals background report (SCC) 2009
[20] Recycled and secondary aggregates background report (SCC) 2008
[21] Rail aggregate depots background report (SCC) 2009

The permitted reserves of brick clay from the Weald Clay deposits in the south of the county are likely to be adequate during the plan period to sustain production at the three existing sites. Areas of search are identified to enable the continuation of brick manufacture at these locations, and at Rudgwick in West Sussex, should this be justified by landbank considerations.

Oil and gas development will be concentrated in the southern half of the county.

Priority for locating aggregate recycling development will be given to urban areas particularly in north west Surrey, Guildford, Woking and Reigate / Redhill. Where urban land is not available, consideration should be given to suitably located previously developed land close to urban areas, subject to Policy MC3, and to temporary use of mineral sites to be restored with inert fill. Sites for such facilities and other forms of mineral development, such as rail aggregate depots, will be safeguarded to enable supply of alternatives to land-won minerals.

Sites of preferred areas and areas of search for possible future working, and sites for other mineral development, are shown on the Key Diagram.

Key Spatial Environmental Considerations

Areas of International Importance for Biodiversity

3.27 Surrey has a number of areas of international significance for biodiversity. These areas comprise Ramsar sites, Special Protection Areas (SPAs) and Special Areas of Conservation (SACs). The areas are shown on the *Key Diagram*. The proposals in the plan have been subject to Habitats Regulations Assessment and the conclusions are set out in a separate report on this issue. Where a planning application is likely significantly to affect an internationally designated area, a project level appropriate assessment of the implications must be carried out to accord with the *Conservation of Habitats and Species Regulations* 2010. Applicants will be expected to provide the information necessary to enable an appropriate assessment to be undertaken by the Mineral Planning Authority (MPA).

3.28 The Thames Basin Heaths Special Protection Area and the Thursley, Ash, Pirbright and Chobham Special Area of Conservation are the most extensive of the designated areas. These areas of heath contribute to broad wildlife corridors covering extensive areas of Surrey with connections to adjoining counties. The priority will be to support the protection and management of these areas. Whilst parts of these areas contain plateau gravels, given the uniqueness and sensitivity of these habitats, it is very unlikely that mineral development could be accommodated within them in an acceptable way.

3.29 The South West London Waterbodies SPA and Ramsar site covers parts of the Thames valley in Berkshire, Surrey, and Greater London. A number of existing mineral sites, as well as areas that contain potentially workable resources of

concreting aggregate fall within this area. The appropriate assessment[22] of the potential impact on the SPA and Ramsar site of preferred areas for primary aggregates identified that subject to certain safeguards there is scope to work King George VI Reservoir (part of Staines Moor Site of Special Scientific Interest (SSSI)) without adversely affecting the integrity of the SPA. However, extraction from the Knight and Bessborough Reservoirs SSSI cannot be achieved without adverse impact and the reservoirs are therefore not identified in the minerals plan for future extraction.

3.30 The appropriate assessment also covers the preferred area for silica sand and the areas of search identified for this mineral and for brick clay. This indicates that development at these locations would not impact on European designated sites, the nearest of which is the Mole Gap to Reigate Escarpment SAC.

Areas and Features Designated for their National Importance

Areas of Outstanding Natural Beauty

3.31 The Surrey Hills and High Weald Areas of Outstanding Natural Beauty (AONB) are part of the framework of nationally important parts of the countryside. The primary purpose of the designation is to conserve and enhance natural beauty – this not only refers to what the landscape looks like but also includes the features, habitats and heritage that contribute to the distinctiveness of the area. Public bodies have a duty[23] to take account of the need to conserve and enhance the natural beauty of landscapes designated as AONBs. Major mineral development within these designated areas will be subject to the most rigorous examination in accordance with the public interest test set out in MPS1.

3.32 Whilst the High Weald covers only a small part of Surrey, and does not contain significant mineral resources, the Surrey Hills AONB covers about a quarter of Surrey. It exhibits considerable diversity, having 13 separate landscape character areas. Conserving the area's diversity and local distinctiveness, whether derived from natural or cultural resources, is a key feature of the Surrey Hills AONB management plan[24]. The AONB owes its existence to the underlying chalk strata but the designated area extends south of the North Downs to include land within the Lower Greensand Formation.

3.33 It is not just the designated Surrey Hills area but also its setting that should be safeguarded, parts of which are designated as Area of Great Landscape Value (AGLV). Its topography provides a number of significant viewpoints over both the Weald to the south and the London Basin to the north, particularly from the North Downs Way and Greensand Ridge. The use of viewpoints and the landscape character within areas visible from such viewpoints either in the AONB or beyond should be conserved and managed.

3.34 Significant silica sand and soft sand deposits occur in the Surrey Hills AONB. Surrey's requirement for soft sand can be met by working outside the designated area so the minerals plan presumes against working within the designated area. There is, however, a recognised national scarcity of silica sand,

[22] Habitats Regulations Assessment and Appropriate Assessment of the Surrey Minerals Plan (SCC) 2009
[23] Countryside and Rights of Way Act 2000
[24] Surrey Hills Management Plan 2009-2014 (Surrey Hills Board) 2009

an essential raw material in a number of UK manufacturing industries, for which there is no suitable alternative. It is sparsely distributed and working in the south east is concentrated in Kent and Surrey.

3.35 Potential hydrocarbon resources lie beneath parts of the Surrey Hills AONB designated area. The Albury gasfield lies within this AONB and its potential as a location for underground storage of gas is being promoted.

3.36 The sandstones within and adjoining the Surrey Hills AONB have traditionally been a source of local building stone. Proposals for small scale extraction of building stone where there is a clear demand for its use in heritage conservation projects, either within the Surrey Hills AONB or nearby, will be treated on their merits.

3.37 The county council has supported the efforts of the Surrey Hills AONB Board in promoting a review of the boundary of the AONB with Natural England. As background to this an assessment of the landscape character and quality of the AGLV[25] was undertaken by landscape consultants and their conclusion was that much of the AGLV had characteristics in common with adjoining parts of the AONB. The Executive in 2008[26] endorsed the proposal of the Board that the AGLV should be safeguarded, through the emerging local development framework process, pending any review of the AONB boundary.

3.38 Mineral resources within the AONB have been outlined above (3.34 - 3.36) and in adjoining areas within the AGLV, the principal resources identified are soft sand, clay, building stone and potentially oil and gas. The plan has a presumption against new workings of soft sand within the AONB and this policy should extend to the AGLV to safeguard it until such time as a review of the AONB boundary has been completed. Development for clay, building stone and oil and gas is covered by policies MC9, MC10, 12 and 13.

National designations of ecological importance

3.39 Surrey has more than sixty SSSIs designated to protect the best examples of habitats, species of flora and fauna and sites of geological or geomorphological interest. Some of these sites are recognised as National Nature Reserves (NNRs).

3.40 Public bodies have a duty[27] to take account of the need to conserve and enhance land designated as SSSIs and accordingly they will be given strong protection because of their national importance. Proposals for development that would harm their special interests, either directly or from indirect impacts arising from development, will be resisted.

3.41 Ancient woodland is also a feature of parts of the county, notably on the Weald Clay in the south of the county. An inventory of ancient woodland is being undertaken (2009-2010) and this should help to identify key resources of ancient woodland habitat and how these are or can be linked.

[25] Surrey Hills AGLV Study (Chris Burnett Associates) 2007
[26] Minute 248/08 SCC Executive September 2008
[27] Countryside and Rights of Way Act 2000

Heritage designations

3.42 The broad concept of the historic environment is more difficult to integrate at a strategic level than other environmental resources. Heritage designations exist as part of the wider historic environment, but their scale can be very small. Equally, some designations can be extensive and historic landscape characterisation offers a parallel to landscape characterisation.

3.43 In addition to scheduled monuments and listed buildings, Surrey contains numerous parks and gardens of historic interest, on both national and local lists. Areas of archaeological interest also present a specific sub-set of the heritage vulnerable to mineral working. Sustaining the heritage embraces both conservation (preservation) and enhancement to the extent that the values of a place allow. Change, including that related to mineral working, offers the potential to enhance and add value to places, as well as generating the need to protect their established heritage values.

Policy MC2 – Spatial strategy – protection of key environmental interests in Surrey

Mineral development that may have a significant effect on Special Areas of Conservation, Special Protection Areas, or sites identified under the Ramsar Convention, will be subject to appropriate assessment. Permission will not be granted where there is any likelihood of adverse impact on the integrity of the area.

Mineral development that may have direct or indirect significant adverse impacts on an Area of Outstanding Natural Beauty, a Site of Special Scientific Interest, or nationally important heritage assets, including scheduled ancient monuments, listed buildings and registered parks and gardens, will be permitted only if

i) it has been demonstrated to be in the public interest, and
ii) the applicant can establish that development and restoration can be carried out to the highest standard and in a manner consistent with safeguarding the specific relevant interests.

Proposals for new mineral sites for soft sand within the Area of Great Landscape Value will, pending review of the boundary of the Surrey Hills Area of Outstanding Natural Beauty, be subject to the tests in criteria i) and ii) above.

Green Belt

3.44 Nearly three-quarters of Surrey is designated as Metropolitan Green Belt (MGB). Its fundamental purpose is to maintain the openness of the countryside, but it can also make a valuable contribution to local character and quality of life for surrounding communities. Surrey is the most urbanised shire county in England, and the MGB plays an important role in preserving openness and in

preventing the expansion of London and towns in Surrey. In line with national guidance, the MGB will be strongly defended from inappropriate development.

3.45 Almost all workable mineral deposits in Surrey are within the MGB. However, *PPG2 Green Belts* states that mineral extraction need not be inappropriate in Green Belts as it is a temporary operation that can be carried out without compromising openness.

3.46 Proposals for other forms of mineral development within the MGB will need to identify very special circumstances sufficient to outweigh any potential harm to the green belt or the reasons for keeping it open.

3.47 Land in the MGB can make a positive contribution to providing opportunities for access to open countryside, outdoor sport and recreation, retaining and enhancing attractive landscapes, improving damaged and derelict land, securing nature conservation interests and retaining land in agricultural, forestry and related uses. Restoration of mineral workings should have regard to these objectives and give particular attention to any priorities identified for particular parts of Surrey, such as those within the Surrey/South West London Green Arc project[28]. The *Minerals Site Restoration Supplementary Planning Document* (SPD), to be adopted alongside this plan, examines likely restoration frameworks for preferred areas and mechanisms such as local community involvement in their delivery.

Policy MC3 – Spatial strategy – mineral development in the Green Belt

Mineral extraction in the Green Belt will only be permitted where the highest environmental standards of operation are maintained and the land restored to beneficial after-uses consistent with Green Belt objectives within agreed time limits.

Proposals in the Green Belt for mineral development other than extraction and primary treatment, will only be permitted where the applicant has demonstrated that very special circumstances exist to outweigh the harm by reason of its inappropriateness and any other harm.

[28] See www.surreycc.gov.uk for further information on the project

4 REDUCING DEMAND FOR MINERALS

Using minerals more efficiently

4.1 Minerals are a finite resource that once removed from the ground cannot be replaced. It is therefore important to reduce the unnecessary use of primary minerals as far as possible, by encouraging efficient use of resources so that they are conserved for future generations.

4.2 Sustainable design, construction and demolition techniques can play a significant role in minimising the demand for primary aggregates and for other minerals used in construction. Careful design can reduce the amount of aggregates, primary or recycled, used in construction, and ensure buildings can be adapted for different uses in the future.

4.3 Changes in industrial processes, such as achieving greater resource efficiency by incorporating more recycled materials, for instance cullet in glass manufacture, can reduce the demand for primary minerals. In determining national guidelines for minerals, regard is had to the potential growth in the proportion of recycled materials used in industry and construction.

4.4 Substitution of primary aggregates with other materials is another way in which demand can be reduced. Secondary aggregates can be manufactured from industrial and mineral wastes such as colliery spoil, incinerator bottom ash, china-clay waste and slate waste. There are limited sources of secondary aggregates local to Surrey, and to increase their level of use it will be necessary to import them from other parts of the country. It is therefore important that the environmental implications of importing secondary aggregates (such as the requirement for rail aggregate depots to unload the material, or additional long-distance lorry movements) are not overlooked.

4.5 The MPA does not regulate the use of minerals, only their working and management. Therefore, in order to reduce the demand for minerals it is important to work closely with others, for example with the borough and district councils through their local development frameworks and with the construction industry. This can include promoting the use of construction techniques and materials that reduce demand for primary minerals and also meet or exceed building regulation requirements. Industry and government sponsored research is leading efforts to develop techniques and materials, using existing waste streams if possible.

4.6 Where minerals are required for a particular major local construction project, temporary borrow pits can sometimes be developed to obtain very local sources of sand, gravel, chalk or clay. Production from borrow pits is normally limited to use for a specific project, and usually has direct access from the pit to the construction site.

4.7 Extraction of minerals from temporary borrow pits can provide opportunities to supply bulk material from lower grade mineral resources. This can help safeguard resources of higher-grade material for primary uses. It is preferable to transporting material from existing, but distant, sites by minimising the

number of people, buildings, settlements and public roads affected by lorry movements. This results in a lower impact on the community and reduced environmental harm.

Policy MC4 – Efficient use of mineral resources

The mineral planning authority, in partnership with local planning authorities and other bodies, will promote the use of sustainable design and construction that provides for efficient use of minerals and enables the incorporation of a proportion of recycled or secondary aggregate in new projects.

Borrow pits associated with major construction projects will be permitted where:

i) the borrow pit is for a temporary period, the material extracted will be solely for use in the specific project, and restoration of the site is tied to completion of that project;
ii) the site lies in close proximity to the proposed construction scheme, enabling direct access without use of public highways if possible.

Aggregates recycling

4.8 The use of primary aggregates can be reduced by recycling concrete and other materials arising from the demolition of buildings and infrastructure. Recycled aggregates are used as bulk fill but when processed to a higher grade product can substitute for primary aggregate in concrete and other uses. In local markets up to 25% of aggregate demand can be met from recycled products. Further market penetration requires investment in reclamation and separation of materials as well as identification, and take up of, new product specifications designed to use the material.

4.9 Construction and demolition waste can be recycled on the site where it is created and used in the construction of the new development. Site Waste Management Plans (SWMP)[29] identify the waste management action proposed for each different waste type, including re-use, recycling, recovery and disposal. Best practice in segregating recyclable materials from general demolition waste could increase the proportion suitable for re-use in higher specification products. Monitoring the scale of this activity should be included in developers' reports on site waste management plans.

4.10 Where on-site recycling is not feasible, as may be the case on the majority of smaller redevelopment sites, material can be transported to recycling facilities for processing. Such waste is a bulky, low value material which is heavy and therefore expensive to transport, so recycling facilities need to be close to sources of waste and potential markets. Segregating material such as concrete can facilitate its re-use in substitution for land-won aggregate.

[29] The Site Waste Management Regulations 2008 No.314

4.11 Policy M2 of the *South East Plan* (the RSS) sets targets for secondary aggregates and the recycling of construction and demolition waste. In Surrey it is estimated that recycling activity from existing sites has the capacity to achieve an output of about 0.4mtpa at present.

4.12 Policy CW5 of the *Surrey Waste Plan 2008* sets the locational criteria for the identification of recycling facilities. Industry may bring forward proposals for recycling facilities on sites in addition to those identified in the Surrey Waste Plan. Where these comply with the development control policies in the *Surrey Waste Plan*, proposals will be supported in the interests of securing higher levels of material recycling. This recognises that the minerals and waste development framework is looking to 2026.

4.13 Temporary aggregate recycling facilities can be appropriately located at mineral workings undergoing restoration. Here they enable the sorting and processing of construction and demolition waste, leaving the residues to be used in restoration. Although some new temporary facilities can be expected, associated with preferred areas identified in the plan, some of the existing temporary sites will cease as conditions implementing their restoration are complied with.

4.14 As indicated above, policies for recycling aggregate and secondary aggregate manufacturing facilities are covered in the *Surrey Waste Plan 2008.* Proposals for new facilities for aggregates recycling will be made in the *Aggregates Recycling DPD.* In Surrey there is little evidence of the production of secondary aggregates which can be used to substitute for primary aggregates. Accordingly, the *Aggregates Recycling DPD* will be concerned with the potential for recycled aggregates only.

4.15 The national waste strategy identifies construction waste as a priority sector for action to achieve reduction. The strategy for sustainable construction in England (2008) targets an increase in the diversion of construction and demolition wastes from landfill. This is reflected in the national and regional guidelines for aggregates where a national target of 60mtpa is assumed for alternative materials in 2011, rising to 65mtpa in 2015. The guidelines advise that production of alternative materials for south east England is assumed to be 130mt over the period 2005-2020.

4.16 The need to increase the capacity for recycling aggregate recognised in the national guidelines was reflected in the development of a sub-regional apportionment for the south east in 2005. This envisaged an increase across the region from 6.6mtpa to 7.7mtpa by 2016 and Surrey was expected to provide 0.8mtpa by 2016 (see paragraph C14 Surrey Waste Plan 2008). It was recognised that authorities with a significant proportion of land designated Green Belt might not be able to implement their full apportionment through site allocations in their development plan documents. The joint Aggregates Recycling DPD will test the extent to which this applies in Surrey.

4.17 The *National and Regional Guidelines for Aggregates Provision in England 2005-2020* (CLG) 2009 envisaged a 10.17% increase in the amount of alternative materials to be produced over the previous guidelines for 2001-2016. Assuming a similar rate of increase in the production of alternative materials over the period 2016-2026 suggests a further overall increase in the order of 7% would be appropriate

(approximate 10% increase over 16 years is roughly equivalent to a 7% increase over ten years). This suggests that provision of recycling capacity amounting to 0.86 mtpa would be needed by 2026.

4.18 A regional increase from 6.6mtpa to 7.7mtpa for the period to 2016 represents a 17% increase in the use of secondary aggregates and recycled materials. Assuming a similar rate of increase in the production of alternative materials over the period 2016-2026 suggests that provision of recycling capacity amounting to 0.91 mtpa would be needed by 2026.

4.19 The material difference between these two estimates, 50,000 tpa is small in terms of the provision of recycling facilities. It would therefore be appropriate to consider that in the longer term recycling capacity in the order of 0.90 mtpa by 2026 should be planned for.

4.20 The county council intends to make provision so as to increase the amounts of aggregate that are recycled and Policy MC5 indicates that the production requirement may be exceeded if acceptable proposals come forward. However, in the event that proposals came forward that would mean that the production requirement would be significantly exceeded, the county council would require to be satisfied that such proposals were needed and did not lead to over provision of aggregate recycling facilities in parts of the county.

Policy MC5 – Recycled and secondary aggregates

Local development frameworks should encourage the re-use of construction and demolition waste at source or its separation and collection for recycling.

The mineral planning authority will make provision in the *Aggregates Recycling DPD* for new facilities that together with existing facilities provide productive capacity for the supply of recycled and secondary aggregates at a rate of at least 0.8mtpa by 2016 and of at least 0.9mtpa by 2026.

5 MAINTAINING A SUPPLY OF MINERALS

Safeguarding mineral resources and infrastructure

5.1 The British Geological Survey[30] produces maps showing the broad distribution of mineral resources which may be of current or potential economic interest. The areas defined are not of uniform potential and take no account of planning constraints that may limit their working, or of existing areas that have been worked. Nevertheless, the maps have been used as a basis for developing minerals safeguarding areas that are identified on the *Surrey Minerals Submission Proposals Map*. Some resources occur in areas of the county where environmental considerations or existing built-up areas are likely to constrain future working. Account has been taken, in drawing up the minerals safeguarding areas, of these constraints and of the extensive areas of past working that are a feature of parts of the county. A background report[31] gives more information on the definition of the minerals safeguarding areas.

5.2 The purpose of mineral safeguarding areas is to define areas where potentially viable mineral resources are likely to be present and to safeguard them from sterilisation by other development. Borough and district councils (as local planning authorities) are responsible for determining the majority of planning applications and proposing sites to meet longer term needs of the community. It is therefore important that the local planning authorities work with the MPA - using an agreed protocol - to ensure that new development does not prejudice land safeguarded to protect mineral resources.

5.3 The mineral safeguarding areas are to be treated as mineral consultation areas. This means that proposals for other forms of development affecting these areas should be subject to consultation with the mineral planning authority. The following land is safeguarded for mineral development:

- sites and associated facilities currently in mineral use;
- sites with planning permission for mineral development;
- preferred areas identified for future mineral development;
- areas of search identified for possible mineral development;
- land likely to contain economically viable mineral resources.

5.4 The MPA will treat prior working as an important objective when consulted on development within a minerals safeguarding area which would otherwise result in sterilisation of the resource.

5.5 A realistic judgement about the likelihood of the mineral being worked in an environmentally acceptable way will be made, and the MPA will not seek to prevent development where it is unlikely that extraction of the mineral would occur in the future. Where mineral deposits are believed to exist but detailed geological information is not available, the existence or otherwise of a potentially workable resource may need to be established by the developer before any application for development that might sterilise the potential deposit is determined.

[30] Mineral Resource Information in support of National, Regional and Local Planning – Surrey (BGS) 2003
[31] Mineral safeguarding background report (SCC) 2009

5.6 As well as safeguarding mineral resources, the MPA may also advise that development should not be permitted if it would constrain the effective operation of existing sites. This is necessary to protect existing infrastructure that supports the minerals industry, and preserve land for future expansion. Of particular importance in this regard are the rail aggregate depots, which allow the importation of minerals such as crushed rock from other parts of the country, and the permanent recycling infrastructure (sites and facilities) that help to reduce demand for primary minerals. In the case of existing and proposed sites for these forms of mineral development, consultation within 200 metres of the site boundary should be provided for. This is to ensure that sensitive land uses which might prejudice their use for mineral development are not introduced.

Policy MC6 – Safeguarding mineral resources and development

Minerals safeguarding areas have been defined for resources of concreting aggregate, soft sand, silica sand, brick clay and fuller's earth. The mineral planning authority will seek to prevent sterilisation of these resources by other development.

Local planning authorities will be expected to consult the mineral planning authority on any proposals for development that would

i) prejudice the effective operation of sites that are currently in minerals use or permitted for such use, or
ii) sterilise mineral resources on preferred areas for future minerals extraction, or
iii) sterilise mineral resources within mineral safeguarding areas

as shown on their proposals maps.

Infrastructure and sites used, or proposed to be used, for minerals development - rail aggregate depots and sites for production of recycled and secondary aggregate - will be safeguarded. Local planning authorities will be expected to consult the mineral planning authority on proposals for non-mineral development in the consultation area around such sites.

Providing supply of primary aggregate minerals

5.7 The contribution made by aggregate minerals in sustaining the construction and infrastructure sectors of the economy means that national and regional forecasts for aggregate demand are made by government as a basis for plan-making. The regional requirement is then divided up (or apportioned) between MPAs across a region and set out in the RSS. The requirement for Surrey included in Policy M3 of the RSS is 2.62mtpa.

5.8 The Panel Report on the *Partial Review of the Regional Spatial Strategy 2009* (*Partial Review*) includes revisions to the method of apportionment of aggregate requirements to sub-regions within the south east. This new method is applied to a regional requirement of 11.12mtpa covering the period 2010-2026. Surrey's

requirement is for an average of 1.27mtpa for this period. The "Proposed Changes" published by the Secretary of State in March 2010 recommended the above figures. In July 2010, in advice issued with the ministerial statement revoking regional spatial strategies, planning authorities were advised to work from the apportionments in the "Proposed Changes".

5.9 The county council supported the review of the sub-regional apportionment as work for the minerals plan had revealed that resources considered potentially suitable for working were scarce. This issue became more significant after revisions were made to regulations requiring that core strategies look at least fifteen years ahead from the time of submission. This in effect meant looking to 2026 and the policy M3 apportionment of 2.62mtpa was, on the basis of evidence available, unrealistic over such a period.

5.10 The *Primary Aggregates DPD* seeks to deliver an adequate supply by including proposals that will be available over the period to 2026. Preferred areas have been selected following appraisal of a comprehensive list of potential zones drawn up by the MPA in consultation with industry, landowners and other stakeholders[32]. National policy confirms that sub-regional apportionments are not inflexible, and the opportunity is provided, through the LDF process, to test practicality and environmental acceptability of the apportionment.

5.11 It is estimated that the proposals for the preferred areas, along with existing permitted reserves, would deliver some 23.96mt over the period 2009-2026. The plan assumes a figure of 24mt because the estimated yield of the preferred areas would be subject to more detailed geological assessment at the application stage.

5.12 Proposals for mineral extraction within the preferred areas will be determined in the context of the apportionment to the county and the landbank position at the time when applications are considered. The landbank position will be monitored annually and if below seven years, the deficit situation will be a material consideration in determining applications on preferred areas.

5.13 National guidance identifies the need to maintain a landbank of permitted reserves equivalent to at least seven years supply at the required annual rate. Due to the way in which sites come forward, are permitted and worked, it is not always possible to achieve an absolute fit with the required landbank at a specific point in time.

5.14 As MPAs are asked to recognise the distinction between the markets for sharp sand and gravel and those for soft sand in the *Partial Review*, the *Primary Aggregates DPD* identifies separate requirements and preferred areas for the two materials. Implementation of the proposals in the *Primary Aggregates DPD* will significantly diminish resources available for extraction in the future, particularly for concreting aggregate, and the MPA will expect this situation to be reflected in future reviews of the regional aggregates apportionment.

[32] Primary aggregates land assessment report (SCC) 2009

Policy MC7 – Aggregate minerals supply

Preferred areas will be identified in the *Primary Aggregates DPD* for soft sand and concreting aggregates which, with identified reserves, are sufficient to enable the production of around 24 million tonnes of aggregates between 2009 and 2026 as a contribution towards the sub-regional apportionment for Surrey. The mineral planning authority will seek to maintain a landbank of at least seven years for aggregates based on the apportionment set in the regional spatial strategy.

Providing supply of non-aggregate minerals

5.15 Production of non-aggregate minerals in Surrey has traditionally been significantly lower than that of aggregate minerals. Silica sand makes the greatest contribution to non-aggregate mineral production.

Silica sand

5.16 As silica sand is regarded as a nationally scarce mineral, national and regional policy puts an emphasis on maintaining a landbank of reserves of at least ten years to enable continuity in production at existing sites. Two workings exist in Surrey. In the case of the Buckland working, only limited silica sand resources remain in the vicinity, and their extraction is likely to further compromise the unsatisfactory condition of a nearby SSSI[33]. The minerals plan does not include proposals for further extraction at Buckland.

5.17 A preferred area for silica sand extraction is identified at Pendell Farm, Bletchingley as an extension to the existing working at North Park Quarry, Bletchingley[34]. The preferred area contains in excess of 6mt of silica sand (see Appendix A) and will enable the landbank requirement for this production area to be met for the plan period should planning permission for mineral extraction be granted. An area of search adjoins the preferred area at Pendell Farm and is a logical potential extension to this. A second area of search is identified at Chilmead Farm, Nutfield Marsh. Development here could give rise to cumulative impacts with Mercers Farm (preferred area P) identified for primary aggregates production and consequently the area should be safeguarded for possible development in the longer term.

5.18 The boundaries of the preferred area and areas of search are indicated on the maps in Appendices A and B. These do not necessarily show the extent of development that may be permitted. Some land outside the boundaries may need to be included in proposals, for example, to provide access to the site from the public highway or allow room for additional landscaping. However, mineral extraction beyond the boundaries will not normally be permitted without justification. More detailed assessments will be required when applications for working are submitted to establish the precise boundaries.

[33] Silica sand background report (SCC) 2009

[34] Assessment of Pendell Farm Preferred Area for Silica Sand (GWP) 2009

5.19 The identification of a preferred area or area of search does not mean that permission will automatically be granted for silica sand extraction, because proposals will be tested under all the relevant development plan policies**.** Key development requirements that will need to be addressed for the preferred area are set out in Appendix A.

5.20 The preferred area would provide an extension to the landbank for production at North Park Quarry and cumulative impacts will be minimised by processing output from the preferred area through the plant at that site. The onus will be on the applicant to demonstrate that any proposal to work minerals on the preferred area in tandem with the existing working does not generate unacceptable cumulative impacts.

5.21 The Folkestone Formation in which the silica sand deposits are found are also a source of building sand within Surrey. In some cases material which fails to meet the required specification for industrial use may be found in conjunction with silica sand deposits. The working of such material for aggregate use may be acceptable but the use of silica sand as building sand is to be discouraged. It is unsustainable to use a high quality material where alternatives are available and the mineral operator(s) will be expected to comply with this requirement.

Policy MC8 – Silica sand supply

Silica sand production will be met by development within the preferred area known as Pendell Farm, Bletchingley. Proposals will be expected to demonstrate the extent to which sand is of, or can be processed to, the standards necessary to meet the national need for silica sand. Development should be phased to enable a landbank of at least ten years of permitted reserves to be maintained.

Areas of search for possible future development are identified adjoining Pendell Farm preferred area and at Chilmead Farm, Nutfield Marsh. Proposals for development to meet a national need within the area of search adjoining Pendell Farm will be supported as an extension to that working if additional reserves are necessary to maintain an adequate landbank during the plan period in preference to development at Chilmead Farm.

Brick and tile clay

5.22 National guidance[35] seeks to maintain landbanks at existing production sites. There are three working sites in Surrey, each with adequate permitted reserves to satisfy the landbank requirement. A fourth site, producing hand-made tiles, closed in 2008 and a resumption of tile production on-site is unlikely to be economically viable. Production at a site in West Sussex adjoining the county boundary may in future depend on resources within Surrey. There are also three dormant brick making sites at Auclaye (Capel), Crowhurst, and Hambledon where it is assumed that production will not resume.

[35] MPS1 – Annex 2 Brick clay

5.23 Permitted reserves at two of the three active sites will be becoming depleted towards the end of the plan period. This plan therefore identifies areas of search related to the existing production areas. Areas of search have been identified to reflect the fact that detailed knowledge of the potential resource is not available at present. The areas of search enable the industry to plan for the longer term should that be commercially appropriate, while making local communities aware that brick-making may continue. The areas of search are shown in Appendices C-F.

5.24 Restoration of brick clay sites can raise particular issues because of the generally slow rate of working and the need to maintain stockpiles for weathering of the clay before production. The MPA will seek to work with operators to develop long term plans for clay extraction and progressive restoration of the sites. Two issues that need to be resolved in such work are the protection and management of geological interests, where these have been identified, and of ancient woodland, which is a particular feature of the Low Weald in Surrey[36].

5.25 There is little detailed evidence available about the quality of the Weald Clay outside those areas that are currently subject to working. MPS1 recommends the identification of mineral consultation areas for clay resources but this is difficult without detailed knowledge of which parts of the extensive resource in Surrey would be viable. It is therefore considered more appropriate to restrict safeguarding to indicative areas in the vicinity of the existing three sites and at Bookhurst Quarry (Swallow's Tiles), Cranleigh (where production ceased in 2008 but permitted reserves remain), and near Rudgwick on the county boundary covering an area of search which adjoins an existing working in West Sussex.

Policy MC9 – Brick clay supply

Proposals for clay working within the areas of search will be considered when it can be shown that the level of permitted reserves is insufficient to maintain a landbank of at least 25 years to sustain brick production at that location.

Other non-aggregate minerals

5.26 The demand for other non-aggregate minerals – building stone, chalk, fuller's earth and peat - is low[37]. Proposals for working of these minerals are not identified in the minerals plan as the need is considered insufficient. Planning applications for these other minerals will be determined on an individual basis. An applicant should demonstrate the need for mineral working and that this need overrides the environmental and other consequences of their working.

5.27 Building stone can be significant in contributing to the diversity and character of the built environment. In Surrey, stone from different parts of the Lower Greensand was used widely across the south of the county and contributes to

[36] Non-aggregate minerals background report (SCC) 2009
[37] Non-aggregate minerals background report (SCC) 2009

character and distinctiveness. Historically, outcrops have been worked at a modest level within the Surrey Hills AONB and adjoining areas but no active quarries remain. In the future, working at a small scale may be justifiable to conserve and maintain the built heritage. Temporary working of existing or abandoned quarries may satisfy such demand, rather than new workings.

5.28 There are substantial permitted reserves of chalk at Oxted Quarry, Tandridge. In view of the limited demand and the potential impact on the character of the Surrey Hills AONB, any further extension to reserves is not justified.

5.29 In the case of fuller's earth, a mineral resource previously considered to be of national significance, it is proposed that existing known resources should be safeguarded. In the event that new uses for fuller's earth are developed, the merits of further working vis-à-vis the environmental consequences of doing so will need to be tested.

Policy MC10 – Other non-aggregate minerals supply

There is a presumption against development for the extraction of chalk, fuller's earth or peat.

Extraction of building stone may be permitted where a need can be clearly demonstrated and no significant adverse impacts would arise.

Planning applications outside preferred areas and areas of search

5.30 It is expected that the industry will bring forward development of the preferred area for silica sand, and those for aggregates identified in the *Primary Aggregates DPD,* during the course of the plan period. There will be a presumption against working these minerals from land outside the preferred areas in order to provide greater certainty for local communities and the minerals industry. This reflects the extensive plan preparation and consultation that has taken place to establish the preferred areas as the most suitable sites for mineral working.

5.31 If applications are submitted on other land, in addition to establishing that mineral working would not lead to significant adverse impacts, applicants would need to demonstrate that the preferred areas will not be brought forward as anticipated.

5.32 Areas of search are identified for possible future mineral development for silica sand and brick clay but not for aggregates. Applications will not be favourably considered for development in areas of search in circumstances where there is an adequate landbank of permitted reserves.

5.33 In order to prevent the unnecessary sterilisation of unworked minerals, especially aggregates, close to existing sites, minor extensions to existing workings will be permitted where appropriate. Extensions to, or deepening of, workings, making use of existing processing plant and access arrangements, may be preferable to creating new sites. Important factors in considering applications for extensions will be the length of time by which the operations

would be extended and the degree of environmental impact of the existing operations.

5.34 Some soft sand, perhaps as much as 10% of production, is used for purposes such as bulk fill, trench fill, landfill cover, or screeding. A lower quality sand could be used as a substitute in such uses. In the interests of sustainable use of valuable resources, proposals for limited production of lower grade sands will be considered if demand can be demonstrated and alternative low grade recycled products are not available. No specific proposals are made because there is inadequate geological information to assess potential resources. Any application will be determined having regard to the policies in this plan.

Policy MC11 – Mineral extraction outside preferred areas

Applications for mineral working outside the preferred areas identified in the plan, including land within areas of search, will only be permitted if it can be demonstrated that:

i) it is necessary to maintain an adequate landbank in situations where land in preferred areas has not come forward for mineral working; or
ii) the proposal is for an extension to an existing site where the mineral would be sterilised if planning permission were not granted; or
iii) the proposal is for the working of minerals for bulk fill, sub-base or granular fill where there is a proven need that cannot be met by use of low grade recycled or secondary aggregate.

Oil and gas development

5.35 One of the short/medium term aims of the Government White Paper *Our energy future: creating a low carbon economy* (DTI) 2003 was to maximise the potential of the UK's conventional oil and gas reserves in an environmentally acceptable manner. As part of the government's Energy Review, a report prepared by DTI in 2006 identified the benefits of providing for storage of gas underground in suitable geological structures; two locations thought potentially suitable are in Surrey. The spatial strategy and the non-aggregate minerals background report provides further information[38].

Conventional oil and gas development

5.36 Conventional oil and gas development differs from other mineral development. It involves continuous periods of working with most disturbance at the exploration and appraisal stage, although these are usually of relatively short duration, and may, or may not, be followed by production. Oil and gas can be transported by pipeline rather than by road, and gathering stations need not be closely tied to the point of extraction, considerations which give the opportunity to reduce environmental impacts associated with production.

[38] See paragraphs 3.16-3.21 above and the Non-aggregate minerals background report (SCC) 2009

5.37 Three separate phases of development are recognised[39], exploration, appraisal and production, each of which requires a separate planning permission. Applications for exploratory wells will be considered on their individual merits in accordance with all levels of policy guidance. Key considerations are locating sites to minimise intrusion, controlling vehicular activity and vehicle routeing, and controlling noise and light emissions from drilling rigs especially during night-time operations. Proposals will be expected to address all these issues.

5.38 Subsequent proposals for appraisal will need to consider the above issues afresh given that this may lead to further applications for production. The appraisal stage may also require the drilling of further wells to determine the extent of a field and consideration needs to be given to the short and long-term impacts associated with all these locations. Directional drilling may offer the prospect of reducing impacts on particular features, although there are practical limits to how far this can be used and will mean a longer drilling phase.

5.39 The final phase of development is the production phase, which may or may not occur depending on whether or not the appraisal identifies that a viable oil or gas field exists. Specific issues on the location of well heads are likely to have been considered in relation to the earlier phases, but what is more critical at this stage are the additional above ground facilities that are associated with production. There is some flexibility in the siting of these facilities and a solution where any environmental impacts can be mitigated to an acceptable level will be required.

5.40 Government issues licenses for exploration[40] and in Surrey these include extensive areas of land within the Surrey Hills AONB. Oil and gas development within this area should be confined to sites where impacts on the character of the countryside, other environmental interests, the local community or wider community interests such as recreation, are capable of suitable mitigation.

Policy MC12 – Oil and gas development

Planning applications for drilling boreholes for the exploration, appraisal or production of oil or gas will be permitted only where the mineral planning authority is satisfied that, in the context of the geological structure being investigated, the proposed site has been selected to minimise adverse impacts on the environment. The use of directional drilling to reduce potential environmental impacts should be assessed.

Planning applications for drilling to appraise potential oil or gas fields will only be permitted where the need to confirm the nature and extent of the resource, and potential means of its recovery, has been established. Well sites, including the re-use of wellheads used at the exploratory stage, should be located such that there are no significant adverse impacts.

Commercial production of oil and gas will only be permitted where it has been demonstrated that the surface/above ground facilities are the minimum required and there are no significant adverse impacts associated with

[39] MPS1 Annex 4 - On-shore oil and gas and underground storage of natural gas
[40] Non-aggregate minerals background report (SCC) 2009

extraction and processing, including processing facilities remote from the wellhead, and transport of the product.

Gas storage underground

5.41 Gas can be stored in porous rock, such as depleted gas and oil reservoirs and aquifers and, if properly designed, large-scale underground storage is more practical and safer than surface storage. *MPS1 Annex 4* states that storage facilities are important for balancing peaks and troughs in supply and safeguarding against disruption to delivery of gas. This extra security to supply is important to the UK as North Sea and other gas reserves diminish and supply increasingly becomes reliant on international imports via pipelines or sea transport. Storage facilities must accommodate gas safely, be relatively close to national distribution networks and ideally close to demand. Two potentially suitable locations have been identified by government, at Albury and South Godstone, (the Bletchingley field)[41].

5.42 In determining applications or in responding to consultations on development for gas storage in porous strata underground, the MPA will require evidence of the need for such a facility at that location. It will also need to be satisfied that potential locations for wellheads have been assessed thoroughly and that the chosen sites will not give rise to significant adverse impacts. Similarly, in determining proposals or in responding to consultations for related surface development for compression and cleaning of the gas, which can be of significant scale, the MPA will expect that alternative locations for ancillary facilities, including areas remote from the wellhead, have been assessed, especially where the wellhead affects designated areas. A thorough assessment of the routeing of any pipeline required between the wellhead, the surface treatment facilities and the national grid will be required to ensure that any potentially adverse effects are properly mitigated.

Policy MC13 – Underground gas storage

Gas storage in porous geological structures will be permitted only where the mineral planning authority is satisfied that the capacity and integrity of the geological structure has been proven to be suitable. Proposals will also be required to demonstrate that there would be no significant adverse impacts on the environment as a consequence, particularly, of the

i) proposed location of the wellhead and facilities;
ii) location and scale of associated surface development, which should be the minimum required; and
iii) pipelines for gas transfer and their routeing.

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[41] See paragraphs 3.20 and 3.21 above

6 PROTECTING COMMUNITIES AND THE ENVIRONMENT

Address adverse impacts from mineral development on communities and the environment

6.1 The challenge associated with meeting the need for mineral development should not be underestimated. The need for such development has a number of origins. On the one hand there are the requirements that national and regional policy define notably through the need to maintain appropriate levels of landbanks for the most important minerals or to plan to enable certain production levels to be achieved. In other cases need for mineral development has to be justified if a proposal is located in a particular area, for instance an Area of Outstanding Natural Beauty or Green Belt.

6.2 Surrey is the most densely populated shire county in England and the accessible mineral resources, especially of concreting aggregate, lie in the most densely settled part of the county. The impacts on local people and their quality of life, including the local environment, are key considerations when weighing where to locate new development.

6.3 The wide range of potential adverse impacts associated with mineral development are considered below (6.7 et seq). Lorry traffic generated by transporting minerals is usually the most widespread concern and is discussed in greater detail in the next chapter. Other impacts, specific to the site and its immediate surroundings, can be addressed either partially or completely, through controls applied under the planning system. The specific nature of such impacts and ways of addressing them will vary case-by-case.

6.4 The majority of planning applications for mineral development will be screened to determine whether or not they require an Environmental Impact Assessment (EIA)[42]. The screening process helps to identify whether the proposal is likely to have significant environmental effects. An Environmental Statement must accompany a planning application for EIA development.

6.5 Most proposals for mineral extraction are likely to fall within the category of major development likely to have significant impacts on the environment and consequently require an EIA. The EIA will identify the likelihood of significant impacts occurring with respect to the issues identified in the scoping opinion. The EIA will show how these could be mitigated, and alternative ways in which the development could be carried out.

6.6 In response to these issues, conditions and legal agreements will often be attached to regulate the operation of the development. Planning conditions can be used to agree the specific details about parts of the proposal (such as a landscape scheme) or to ensure that the effects on local communities or the environment are reduced (such as control of working hours). Where significant

[42] The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 – SI1999 No.293

adverse effects cannot be adequately controlled or prevented, planning permission will be refused.

Noise, dust, fumes, vibration and illumination

6.7 Noise, dust and general disturbance from traffic is often of greatest concern to surrounding communities. When considering planning applications the MPA will need to be satisfied that potential adverse impacts on communities and the environment have been satisfactorily addressed.

6.8 Levels of disturbance will vary according to the type of development. On some sites the limited amount of plant and equipment required for mineral working may result in minimal impacts apparent from outside the site, whereas facilities such as rail aggregate depots may give rise to more significant impacts. Higher levels of disturbance may be associated with particular stages of mineral working. For example, some essential short-term activities such as soil stripping or the removal of noise bunds and screening may be more disruptive than normal day-to-day operations. Controls may be necessary to minimise the amount of dust generated, particularly in drier weather.

6.9 Potential impacts can often be overcome by using measures that remove or reduce emissions at source. Examples include controlling hours of working, careful location of plant in relation to neighbouring developments, housing of machinery, attaching silencers to plant, water sprinkling, wheel washing and directing lighting downwards and away from properties.

6.10 Landscape works such as bunds or screening on the site boundary can help to reduce potential noise impacts. On some sites it may be necessary to ensure that there is adequate distance separating the boundary of a site and any nearby housing or other noise sensitive uses. Potential impacts will be different for every planning application, therefore the particular characteristics of each site will be considered before deciding on the need and most appropriate size for any unworked margins. Factors to be taken into account include proximity of the proposed development to houses, schools or other sensitive land uses, location of plant and other ancillary development, topography of the site and surrounding area (including natural and man made features which may reduce the impact of development such as landscape features), and nearby roads and railways. The need to avoid undue sterilisation of mineral resources when determining the appropriate margins, will also be taken into account.

Flooding, water resources and quality

6.11 Some mineral resources – in particular sharp sands and gravels - occur within river flood plains. Mineral extraction and processing are compatible with such areas, provided that any impacts associated with the development (including for example the location of processing facilities and noise bunds) can be adequately managed to ensure that there will be no material increase in the risk of flooding on the site and surrounding area. In some cases there may be scope to help alleviate risk by increasing flood storage capacity. *PPS25 Development and Flood Risk* identifies a sequential approach to development in flood risk areas. After having applied this approach, mineral extraction and processing may take place.

6.12 To prevent an increase in flood risk it is necessary to maintain the capacity of the floodplain and the free flow of floodwater. The location of preferred areas for future minerals development identified in the minerals plan has been informed by a strategic flood risk assessment[43] which takes into account the scenario of higher flows as a result of climate change. Attention is drawn to the guidance in chapter 8 of that document and to PPS 25[44] on project flood risk assessment. Those proposing development should specifically refer to this guidance to help identify any relevant flood risk issues at the site. Proposals for mineral extraction and restoration will nevertheless need to demonstrate through the project level assessment that the impacts of development on all sources of flood risk have been suitably addressed and adequate surface water drainage strategies designed. Any potential increase in the rate and volume of surface water run-off associated with restoration by infill should be fully investigated.

6.13 Increased risks of flooding associated with mineral working can be avoided through a number of measures, which include:

- ensuring that there is no net loss of flood plain storage;
- attenuating surface water runoff from the site and releasing it at a controlled rate and volume to the watercourse or sewer;
- ensuring that flow routes and local drainage are not impeded by locating bunds, ancillary structures and stockpiles of materials so that floodwater flows are unobstructed; and
- providing additional flood water storage areas so reducing flood risk in the surrounding area.

6.14 Surface water and groundwater provide fresh water for drinking, washing, and agriculture and to support flora and fauna. Measures to protect them from any adverse impacts arising from development include:

- ensuring that there are no significant changes to groundwater levels. If the site is to be worked dry and below the water table, water must first be pumped out of a pit. This process of 'dewatering' lowers groundwater levels in the locality which may have an adverse affect on habitats and features of nature conservation importance and on archaeology, or draw in contamination from the surrounding area;
- undertaking detailed hydrogeological assessment to assess the risks posed by physical disturbance of aquifers and to source protection zones for the safeguarding of groundwater, particularly where working is in close proximity to landfill sites; and
- maintaining the quality of water resources by preventing the pollution of ground and surface water, such as from the introduction of chemical or other contaminants. A considerable amount of water may be required for washing mineral, particularly in processing aggregates. Drainage during operations, and any discharge into local watercourses, should be controlled in accordance with standards set by the Environment Agency through licensing.

[43] Strategic Flood Risk Assessment of the Surrey Minerals Plan (SCC) 2009
[44] PPS25 Development and Flood Risk – Practice Guide (CLG) 2009

Visual and landscape impact

6.15 Mineral working can result in significant changes to landscape character (both beneficial and adverse), not only while working is in progress but also in the long-term. Changes are particularly apparent, for example, where a green field site is restored to a water body. Temporary landscape works such as bunds or earth mounds can affect the appearance of an area but may be positive in terms of reducing local visual and noise impacts. Permanent minerals developments (such as new rail aggregates depots) will have longer-term landscape and visual impacts that will need to be addressed in an appropriate way.

6.16 Significant parts of Surrey's countryside are nationally designated landscapes, forming the Surrey Hills and part of the High Weald AONBs. These designated areas cover about a quarter of the county and the adjoining AGLVs cover a further tenth. Mineral development within such areas will require particular justification as indicated in the spatial strategy. Development elsewhere in the countryside should pay particular regard to local character and seek, through appropriate restoration, to conserve this. Locally, features such as veteran trees, hedgerows and shaws can make a significant contribution to character, may form part of a wider framework of vegetation to support wildlife and biodiversity, and provide a framework for restoration.

6.17 Impacts on the landscape during mineral working can be reduced or overcome by careful location of processing plant and by protecting important views. Planting schemes and landscaped bunds may be used to screen developments. Sensitive planting design and the use of appropriate species can help to enhance local landscape character and integration with the final restoration proposals. Advance planting may be carried out around mineral workings to allow plants time to establish and form a visual screen before production begins.

Biodiversity and geological conservation

6.18 Conflicts will arise between protecting Surrey's biological and geological diversity interests and meeting the need for minerals. The degree of protection given will be appropriate for the status of a site in terms of its international, national or local importance; the status of protected species; and its biodiversity and geological interests in the wider environment. The strongest protection will be given to nationally and internationally important sites, as indicated in chapter 3.

6.19 Sites recognised and protected in Surrey because of their regional or local importance include Sites of Nature Conservation Importance (SNCIs), Local Nature Reserves (LNRs), Regionally Important Geological or Geomorphological Sites (RIGS), and ancient woodland. Development outside sites recognised as having biodiversity interest may nevertheless impact on such sites, and the possibility that this may occur should not be discounted.

6.20 Biodiversity interests also include features within the landscape of importance for wild flora and fauna that form part of the wider network of natural habitats – such as veteran trees and priority habitats identified in Surrey's Biodiversity

Action Plan[45]. A baseline ecological survey is useful in identifying what exists on the site and whether these features can be retained and managed. Restored sites may also contribute to the creation or maintenance of green corridors enabling wildlife migration and adaptation to pressures such as climate change.

6.21 Measures can be adopted to help avoid or minimise adverse impacts on biodiversity and geological conservation interests, and mineral development can often actively help to protect and enhance them in the long-term. These include:

- managing existing habitats on or near the site;
- habitat creation – while some habitats are irreplaceable (such as ancient woodland), other habitats of conservation value can be created. On some sites, the biodiversity interest is a direct result of mineral working and restoration meeting targets within the Biodiversity Action Plan can assist habitat creation; and
- protecting and enhancing biodiversity and geological interest during working. For example, protecting geological features, or maintaining quarry faces that provide a nesting ground for sand martins and avoiding extraction at nesting times.

Heritage

6.22 Heritage, or the historic environment, includes archaeology, buildings and structures, areas of historic landscape such as detailed patterns of fields and farms, woodland, villages and historic parks and gardens, cultural artefacts and memories and written and visual archives.

6.23 Surrey's identity and sense of place is closely linked with its rich heritage, an irreplaceable resource that can be vulnerable to damage from development. Conflicts may arise between protecting our heritage and meeting the need for minerals. By addressing heritage considerations before planning applications are submitted, there is greater scope to avoid or minimise any potential adverse impacts.

6.24 Listed buildings and conservation areas should be protected. The emphasis will be on preserving the physical structure, setting or any features of special architectural or historic interest of a listed building and to preserving or enhancing the character or appearance of a conservation area. Some potential impacts may be avoided by routeing lorries away from conservation areas or buildings in order to protect their fabric, character or setting.

6.25 Careful attention will be given to protecting the setting of an historic building or parkland, or a rural settlement where the historic pattern or fabric of the landscape is of particular value. Whilst landscape character can be restored following mineral development, the historic landscape will have been irretrievably lost. Therefore it is necessary to ensure that these landscapes are protected and managed, in particular historic parks and gardens (registered and unregistered), designated Areas of Special Historic Value and other

[45] Surrey Biodiversity Action Plan 1999

features such as field patterns or buildings that are identified in Surrey's historic landscape characterisation study[46].

6.26 Scheduled monuments and other sites of national importance and their settings are given strong protection and there will be a presumption in favour of their physical preservation in situ. Information on archaeological material and sites in Surrey is held on the Historic Environment Record[47]. However, not all remains are known about and recorded, and unrecorded remains can be particularly vulnerable to damage or destruction. In order to safeguard presently unknown remains, an archaeological assessment will need to be carried out by the developer where land affected by proposed mineral development exceeds 0.4 hectares or is within an area of high archaeological potential. The assessment will need to be carried out before a planning application is submitted in order to help determine appropriate methods of working and suitable conditions if planning permission is granted.

6.27 A professional site investigation will be needed to establish the character and extent of archaeological remains and potential options for minimising or avoiding damage, for example by working at an appropriate distance from the remains, and preserving them in situ. A record will be required of any archaeological features or buildings that are altered, disturbed or removed as a consequence of development. As a condition of planning permission, it may also be required that a nominated archaeologist be given access to the site during preparation or working to ensure that any necessary recording or emergency salvage can be undertaken.

Recreation and rights of way network

6.28 Mineral development can affect public rights of way, including potential rights of way in the Improvement Programme, open spaces or outdoor recreation uses whilst the excavation is in progress. Where rights of way are affected, arrangements for their protection or diversion should be put in place. There is also potential for impact on routes favoured by cyclists, equestrian and walkers in the vicinity of a site. Restoration of mineral workings can provide opportunities to open up sites that were previously in private ownership for recreational uses, and to designate new rights of way.

Use, quality and integrity of land and soil resources (including land stability)

6.29 It is important to protect land which supports activities such as farming, horticulture and forestry in order to meet current need, and also for the benefit of future generations. Land of grades 1, 2 and 3a of the Agricultural Land Classification is a national resource. A relatively small proportion of Surrey's agricultural land is classified grades 1 or 2, and much of this is associated with sand and gravel deposits. Proposals for mineral working on higher-grade agricultural land should plan to return land to a state suitable for agriculture even if it is not possible to restore land to its original agricultural classification.

6.30 Top soil and sub soil should be carefully removed and stored separately during preparation and working of a site, and particular attention given to protecting

[46] Surrey historic landscape characterisation (Bannister and Wills) 2001
[47] Historic Environment Record - Surrey

important seed banks. The integrity and safety of land and soil should also be protected during working and long-term use of the site once it is restored.

6.31 Measures should ensure the quarry sides are stable and will not result in subsidence either on or off site. In those cases where sites abut roads or railways, margins should be sufficient to ensure the structural integrity of such infrastructure.

Potential hazard to aircraft from birds

6.32 Development should not increase the risk of birds striking aircraft, which could be damaged or endangered as a result. Although the process of mineral extraction does not in itself attract birds, the creation of water features, nature reserves and landscape design all have the potential to attract birds which could increase such risks.

6.33 The safeguarding areas around the airports at Heathrow, Gatwick, Biggin Hill and Farnborough have been taken into account in considering potential areas for future development. These airports are officially safeguarded, given their importance to the national air transport system and the safeguarding provides a 13km radius around each to guard against new or increased hazards to aircraft from possible bird strike. Other licensed aerodromes, including Fairoaks and Redhill, have lodged non-official safeguarding maps with the MPA to protect their operations from potentially hazardous development. Some airport operators request preparation of a Bird Hazard Management Plan to ensure potential risk is fully investigated.

6.34 Proposals for restoration and after-use will need to give careful consideration to the type and design of any landscape schemes and planting that might be incorporated, particularly under approach paths or in areas close to the aerodrome. Particular features that can often be attractive to birds include shallow water areas or those with gently shelving banks, dense vegetation that may provide roosting or nesting habitats, and large concentrations of berry bearing trees and shrubs that may provide an attractive food supply. Potential conflicts between nature conservation objectives and the risks to aircraft from birds will need to be carefully considered and balanced, and solutions can usually be found.

Cumulative impact

6.35 The cumulative effects of working quarries and the way they relate to existing developments are important issues. This is particularly so in areas which are already under significant development pressure, or have concentrations of several existing and potential future mineral workings. Cumulative impacts may, for example, arise where mineral sites that are in close proximity would be worked at the same time, or where working has taken place in an area over a long period of time. Measures may be applied to avoid or reduce cumulative impacts by controlling the number and timing of permissions, phasing of working and restoration and by attaching conditions to planning permissions.

Policy MC14 – Reducing the adverse impacts of mineral development

Mineral development will be permitted only where a need has been demonstrated and the applicant has provided information sufficient for the mineral planning authority to be satisfied that there would be no significant adverse impacts arising from the development. Proposals for development within preferred areas will be expected to address the key development requirements set out for each.

In determining planning applications for mineral development, potential impacts related to the following issues, where relevant, will be considered, giving particular attention to those highlighted in any screening opinion made for the site:

i) noise, dust, fumes, vibration, illumination, including that related to traffic, generated by the development;
ii) flood risk, including opportunities to enhance flood storage, dewatering and its potential impacts, water quality, and land drainage
iii) the appearance, quality and character of the landscape and any features that contribute to its distinctiveness;
iv) the natural environment, biodiversity and geological conservation interests;
v) the historic landscape, sites or structures of architectural and historic interest and their settings, and sites of existing or potential archaeological interest or their settings;
vi) public open space, the rights of way network, and outdoor recreation facilities;
vii) the use, quality and integrity of land and soil resources, land stability and the integrity of adjoining transport infrastructure;
viii) the need to manage the risk of birds striking aircraft;
ix) cumulative impacts arising from the interactions between mineral developments, and between mineral and other forms of development;
x) any other matter relevant to the planning application.

7 TRANSPORTATION

Address adverse impacts from the transportation of minerals

7.1 One of the most significant impacts of mineral working in Surrey, and the one that usually causes the most public concern, is the lorry traffic generated from transporting the minerals. The nature of the market for minerals in Surrey means that lorries are used for transportation in the overwhelming majority of cases as this is the most cost effective means of transport. People generally dislike lorries travelling on roads near their homes because they are usually noisier and more intimidating than ordinary traffic. Lorries also contribute to overall traffic congestion.

7.2 As well as their disadvantages in terms of local perception, road-based forms of transport are less sustainable in comparison to alternative ways of transporting minerals. Planning the transportation of minerals needs to reflect the aspirations of the *Surrey Local Transport Plan* 2006/7-2010/11 (SCC 2006) as far as possible, in order to reduce adverse impacts.

7.3 For short distances, conveyors and pipelines can be very effective alternatives to lorries. They are most commonly used to transport material within sites or from one site to another nearby for processing. Pipelines have the lowest visual impact, but, with the exception of hydrocarbons, require material to be mixed with large volumes of water, which then requires management (for example using settlement ponds). Private haul routes may be an alternative to use of public roads if circumstances allow their use.

7.4 For transportation over longer distances rail and water are both environmentally preferable to road. However, such movements require considerable investment making them economic only for moving large volumes of material between fixed points. This makes the use of either method of transport impractical for journeys which are associated with specific local construction projects although existing sidings and wharves should be retained to enable their future potential to be tested.

7.5 With the exception of silica sand and hydrocarbons, all the minerals produced in significant volumes in Surrey are used relatively locally, and therefore rail transportation is not an appropriate method of moving them from the mineral working to their point of use. Rail is, however, used for the importation of crushed rock and marine-dredged aggregate into the county.

7.6 There is no recent historic evidence of transport of minerals by water, although river dredgings were handled at Penton Hook on the Thames. Any future potential for the use of rivers for transportation of material will be explored where appropriate.

7.7 The nature of the traffic generated by mineral working can require road improvements to be carried out in order to maintain the safety of the network. These can include junction improvements or road widening, and improvement to visibility around the access to a site so passing traffic can readily see slow moving lorries and vice versa. It is important that mineral development does

not compromise highway safety, and that where costs for improvements are incurred, these are met by the mineral operators rather than the community. Equally, the needs of pedestrians, cyclists and horse riders should be considered, especially where the highway forms a link in the rights of way network and potential impacts on vulnerable road users might occur.

7.8 Some of Surrey's resources of minerals are inaccessible because they are located in areas that do not have roads capable of supporting direct access to lorry traffic. However, new access arrangements, including pipelines, tunnels, private haul routes or conveyors may allow such resources to be extracted in the future, albeit at additional cost.

7.9 Planning applications for mineral development will be expected to show that alternatives to road-based movement of minerals, for instance use of existing railheads or wharves, have been considered as part of a Transport Assessment[48]. However, the majority of mineral that is produced in Surrey is transported over relatively short distances, and lorries are often the only practicable, cost effective option. It is important to ensure the effects of traffic generated by mineral developments on local communities, the environment and the local road network, are carefully considered. In some parts of the county, the proximity of existing workings or preferred areas to one another may justify the need to phase development to limit cumulative impacts from transport movements. Prior discussion with the Highways Agency on motorways and trunk roads, and with the Highway Authority on other roads, will be expected.

7.10 Movement of minerals by road should as far as possible be confined to the motorway and primary route network and potential impacts on these roads assessed as part of the transport assessment of proposals. However, for many sites direct access on to this network is not possible. Particular attention should therefore be given to the routeing of vehicles between the proposed development and the motorway and primary route network. Where appropriate the use of routeing agreements will be encouraged to confine lorries to the most appropriate roads. These are usually secured through legal agreements.

Policy MC15 – Transport for minerals

Applications for mineral development should include a transport assessment of potential impacts on highway safety, congestion and demand management. The assessment should also explore how the movement of minerals within and outside the site will address issues of emissions control, energy efficiency and amenity.

Applicants will be expected to address alternatives to road-based methods of transport, especially where these can use existing rail sidings.

Mineral development involving transportation by road will be permitted only where:

[48] Assessments should be prepared in accordance with DfT 'Guidance on Transport Assessments' and DfT Circular 02/07 'Planning and the Strategic Road Network.'

i) there is no practicable alternative to the use of road-based transport that would have a lower impact on communities and the environment;
ii) the highway network is of an appropriate standard for use by the traffic generated by the development or can be suitably improved; and
iii) arrangements for site access and the traffic generated by the development would not have any significant adverse impacts on highway safety, air quality, residential amenity, the environment or the effective operation of the highway network.

Rail aggregate depots

7.11 Rail transportation plays a role in the importation of minerals (particularly crushed rock and marine aggregate) into Surrey. It may also play a role in the future as a means of importing secondary aggregates to supplement local land-won aggregates. The protection of existing rail depot infrastructure can promote the more sustainable movement of minerals.

7.12 Existing facilities are located at Salfords and Woking, although the former is currently operating at a very low throughput largely due to existing significant road access and land ownership constraints[49]. Existing rail depots in outer London, at Purley and Tolworth, in Colnbrook and Crawley have potential to serve parts of Surrey. A rail siding exists at South Godstone (Lambs) Brickworks, but proposals to use it as the basis of a rail aggregates depot were rejected on Green Belt grounds in 2001.

7.13 The existing rail aggregate depots are well-located with respect to major towns in the southern part of the county, and their safeguarding, or acceptable relocation, is necessary. Woking has an established market and the resumption of use of the Salfords depot would provide additional capacity on the eastern side of the county subject to the provision of improved road access.

7.14 The 2009 regional study, *Aggregate Wharves and Rail Depots in South East England*[50] indicates that there is significant capacity at railheads at present. The study identifies potential depot sites for the future, none within Surrey. This supports the conclusion that there is no significant need for additional depots in the county at present, but this should not preclude the industry from bringing proposals forward if acceptable sites can be found and the need can be justified. Proposals for the use of existing sidings for the movement of minerals out of the county will be considered on their merits.

Policy MC16 – Rail aggregate depots

The rail aggregate depots at Salfords and Woking will be safeguarded from development. Proposals for new depots, including any replacement for the existing depots, will be considered on their merits. In Green Belt locations, proposals will need to demonstrate that very special circumstances exist and that there are no suitable alternative locations beyond the Green Belt.

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[49] Rail aggregate depots background report (SCC) 2009
[50] Study of Aggregate Wharves and Rail Depots in South East England (SEERA) Feb 2009

8 RESTORATION AND ENHANCEMENT

Restore mineral workings to the highest standards

8.1 Achieving high quality restoration is integral to consideration of applications for mineral extraction. The way land is restored and its subsequent management offer the means to enhance the character of land taken for mineral working. Properly managed, restoration will benefit communities and their local environment and ensure that a valuable asset will be passed on to future generations. To do this will involve collaboration between key interest groups including landowners, mineral operators, local authorities, local communities, prospective land managers, and non governmental organisations. Enlightened operators already actively support local liaison groups (see paragraph 9.20) set up to deliver better understanding.

8.2 It is vital to ensure that the restoration and future use of sites is addressed at the outset of preparing applications. To this end, the *Minerals Site Restoration SPD* has been prepared in parallel with the minerals plan to provide best practice and indicative restoration schemes for all of the preferred areas identified in the minerals plan.

8.3 In most cases minerals sites are most appropriately restored in a progressive way. This ensures that worked parts of the site can be brought back into beneficial use as soon as possible whilst extraction of other parts of the site is ongoing. It can also help to reduce the impact of working a particular part of the site and the timescale of disruption faced by people living in the immediate vicinity.

8.4 Restoration schemes, whatever the proposed after-use, should be designed in a way that conserves and where possible enhances the landscape character of the area in which sites are located. Schemes of restoration should also seek to offer benefits for surface water drainage and reduce flood risk from all sources.

8.5 Mineral sites in Surrey have traditionally been restored either by filling with inert and non-inert wastes and, following soil replacement, returned to agriculture, or for a water-based after use. Disposal of biodegradable waste to landfill is being progressively reduced for environmental reasons, while the introduction of the landfill tax has reduced the quantity of inert waste available for restoration. This has led to a change in approach to the restoration of minerals sites and to schemes involving little or no fill becoming more common. In the event that inert fill available for landfill becomes scarce it may be necessary to prioritise which workings are to be filled. The indicative restoration schemes in the *Minerals Site Restoration SPD* indicate the sites where full, partial or no inert fill is anticipated. Restoration by inert fill, full or partial, should be carried out in accordance with the Landfill Directive and the Environmental Permitting (England and Wales) Regulations 2007 (as amended)[51].

[52] The Landfill (England and Wales) Regulations 2002 and The Environmental Permitting (England and Wales) Regulations 2007 as amended

8.6 The majority of mineral workings lie in the Green Belt and after-use needs to be appropriate to that designation. Minerals sites can be appropriately restored for a range of after-uses including agriculture, forestry, recreation and nature conservation. For some sites a mix of uses may be appropriate, however such schemes would need to be carefully designed and managed to avoid conflicts (such as when combining recreational and nature conservation uses).

8.7 Applicants will need to show that they have the technical and financial competence to restore land in accordance with any proposed restoration scheme. Restoration for some types of after-use, such as nature conservation or recreation, generally require longer term management than the five year period advised in national policy for the aftercare of mineral sites. Legal agreements, to secure longer periods of management, will be sought in such circumstances.

Policy MC17 – Restoring mineral workings

Mineral working will be permitted only where the mineral planning authority is satisfied that the site can be restored and managed to a high standard. Restored sites should be:

i) sympathetic to the character and setting of the wider area; and
ii) capable of sustaining an appropriate after-use.

Restoration of mineral workings should be completed at the earliest opportunity and progressive restoration will be required where appropriate. The applicant will be expected to agree a scheme with the mineral planning authority detailing how the land will be restored and managed before, during and after working.

Enhancement

8.8 Enhancement rather than just reclamation, bringing benefits before, during and after mineral working, is also a key objective. Opportunity exists to create – or enhance – sites for nature conservation, particularly where the long term management and use is secured through legal agreements. This is in line with advice that extraction should contribute to actions in the UK and Local Biodiversity Action Plans, even where nature conservation is not the primary after-use. Enhanced access, including new footpaths and bridleways connecting to existing networks, can help secure long-term benefits for the community. Well-designed schemes, in appropriate locations, may also offer benefits in terms of reduced flood risk to and from the county; project level flood risk assessment will identify where such mitigation is required and the means by which it is to be delivered. Where heritage assets adjoin or are in close proximity to mineral development, opportunities to enhance the setting or understanding of the asset as part of restoration, should be sought.

8.9 Proposals for restoration and after-use should also take account of relevant guidance such as recreation strategies, the Surrey Hills AONB Management Plan, countryside management projects, or proposals to improve areas where landscape is, or is becoming, degraded, especially on the urban fringe. The

Minerals Site Restoration SPD refers specifically to wider area enhancement schemes such as the Nutfield Ridge and Marsh Project and the Surrey/South West London GreenArc Project where such initiatives are already in place. In some cases, wider area improvements may include former areas of mineral workings where opportunity exists to enhance the quality of previously worked land.

Policy MC18 – Restoration and enhancement

The mineral planning authority will encourage and work with mineral operators and landowners to deliver benefits such as enhancement of biodiversity interests, improved public access and provision of climate change mitigation such as greater flood storage capacity. Where appropriate, a wider area enhancement approach should be developed, linking restoration proposals for mineral sites or linking site restoration to other green infrastructure initiatives.

9 IMPLEMENTATION AND MONITORING

Implementation

General

9.1 In Surrey the development plan comprises:

- the Regional Spatial Strategy 2009;
- the *Surrey Minerals Plan*[52]; and
- the appropriate borough or district local development framework[53].

9.2 National guidance places considerable emphasis on the need for a more sustainable approach to resource consumption, part of which relates to natural resources such as minerals. A key role will be for the minerals industry, its associated trade organisations and the construction industry to work together to increase the use of recycled or alternative products in place of primary materials. Another area highlighted is the need for mineral, waste and local planning authorities to cooperate on implementing policies on sites for recycling minerals and safeguarding wharves and depots. These shared roles are reflected in the monitoring proposals set out in the following section.

9.3 The MPA has a key role in setting the land use and spatial framework for mineral development. This aspect of implementation is outlined in the following paragraphs. Table 1 at the end of this chapter summarises key aspects of implementation of each of the policies and the key agencies involved.

Planning applications for mineral development

9.4 Mineral development requires a planning application to be submitted and granted before any works commence. Virtually all planning permissions are subject to conditions which provide a means of ensuring work is carried out in an acceptable way. By law, planning applications must "be determined in accordance with the development plan unless material considerations indicate otherwise."

9.5 When a planning application is prepared, considerable additional detailed supporting information has to be supplied. Many applications require an EIA (see paragraphs 9.11-12) which can involve very detailed assessment across a range of topics such as landscape, hydrology, ecology, heritage, pollution and transportation. The results of these assessments and any other relevant factors are "material considerations" and may ultimately show that land identified in this plan is unsuitable for minerals development and that planning permission should be refused.

9.6 The minerals plan therefore does not provide absolute certainty regarding the location of future minerals development in Surrey but sets a strategic lead

[52] The 'saved' policies in the Minerals Local Plan 1993 form part of the development plan until this and other development plan documents of the Minerals and Waste Development Framework are adopted.
[53] The 'saved' policies within the current borough or district local plan form part of the development plan until development plan documents within the local development framework have been adopted.

within which the planning applications process operates. Taken as a whole, the minerals plan will guide decisions on applications within preferred areas identified for future development in this plan, as well as proposals that may come forward on other areas.

The development control process

9.7 Development control is the process of determining planning applications for mineral development. Planning applications should contain the justification for the development, details of how the operations will be managed, and any measures proposed to reduce or remove adverse effects.

9.8 The mineral planning authority will consider all the community, economic and environmental issues that are relevant to each planning decision. Sufficient information must be provided with planning applications so that the likely effects of the development together with proposals for appropriate control or mitigation can be considered. In some cases detailed assessments of particular issues may be required. The county council has published guidance, setting out the type of information that should be provided with a planning application for minerals development.

Pre-application discussions

9.9 Applicants are encouraged to discuss their proposals with the MPA before submitting a planning application. Early discussion will help to identify potential impacts from proposals, and possible measures to avoid or minimise them. The MPA may suggest that applicants seek advice from technical bodies such as borough and district council environmental health officers, the Environment Agency, Natural England and English Heritage about the need to carry out detailed assessment work.

9.10 Consultation with statutory and other bodies such as local interest groups will help establish potential impacts of a proposed development and improves the quality of decisions on planning applications. The S*tatement of Community Involvement* (SCC) 2006 provides information on how consultation on planning applications will be carried out.

Environmental Impact Assessment

9.11 By law, Environmental Impact Assessment (EIA) is required for major development that is likely to have significant impacts on the environment. Most proposals for mineral working are likely to fall within this category. An EIA will identify the likelihood of significant impacts occurring as a result of a development, how these could be mitigated, and alternative ways in which the development could be carried out.

9.12 The MPA will screen all planning applications for mineral development to determine whether or not they require an EIA. The screening process helps to identify whether the proposal is likely to have significant environmental effects. If an EIA is required, a scoping opinion may be provided by the MPA which identifies the issues to be addressed. An Environmental Statement must accompany a planning application for EIA development.

Habitats Regulations Assessment

9.13 A number of sites within Surrey are protected under the European Habitats or Birds Directives. Development which is likely to have an adverse affect on the particular interests for which these sites are designated should not be permitted. Although the plan proposals have been subject to appropriate assessment, at the project level an appropriate assessment will be needed where proposals are made which are likely to have a direct or indirect impact on the designated areas.

Material considerations

9.14 Every planning application for development is decided on its merits, and should be determined in accordance with the development plan unless material considerations indicate otherwise. When planning applications are determined, all the relevant policies in this plan will be taken into account, and used as the basis for decision-making.

9.15 Material considerations include issues such as the impacts on local communities, national planning guidance, and the need for the development. However there are no firm rules about the range and type of material considerations, nor about the weight that should be attached to them in individual decisions. This is because:

- material considerations are subject to change in the light of government guidance and court judgements;
- the development plan cannot explain which considerations will be material to a particular planning decision because the circumstances of each application will be different; and
- the weight given to material considerations when making decisions on planning applications will be affected by individual circumstances.

Controlling impacts

9.16 If planning permission is granted, conditions and legal agreements will often be attached to regulate the operation of the development. Planning conditions can be used to agree the specific details about parts of the proposal (such as a landscape scheme) or to ensure that the effects on local communities or the environment are reduced (such as control of working hours). Where significant adverse effects cannot be adequately controlled or prevented, planning permission will be refused.

9.17 Planning legislation and policy helps to protect communities and the environment, but controls are also placed on developments through other mechanisms by European regulations and regulations within the Environmental Permitting Programme.

Monitoring operations and enforcement

9.18 The effective monitoring of operational sites is key to ensuring the effective delivery of consented minerals operations within Surrey, pursuing compliance with planning conditions including noise and dust and legal agreements, and encouraging good practice through regular site visits and continuous dialogue

between the MPA and mineral operators. Many of the mineral operators in Surrey have environmental accreditations such as ISO14001, which require that best practice be followed. However, the role for the county council as an independent regulator is important, and helps to increase confidence among local communities. Efficient and effective monitoring can identify potential problems on site at an early stage, or investigate residents' concerns and ensure that they are resolved satisfactorily, whilst enforcement may be used when expedient. A monitoring system has been in place for many years within Surrey and regular site visits enable site progress and development to be monitored and controlled within the planning system.

9.19 Surrey takes a proactive policy based approach towards restoration enhancement and is one of the few counties to have an officer working with mineral operators exclusively to encourage the enhanced restoration of mineral workings. The role of the enhancement officer includes the provision of opportunities to achieve biodiversity benefits, integrate former workings with the surrounding wider landscape and promote long-term management including access. It also provides assistance to enforcement monitoring officers dealing with landscape restoration issues at sites with less complex requirements. Progressive restoration is always encouraged on larger sites, though market forces may affect timescales on sites requiring inert infilling. The supplementary planning document *Minerals Site Restoration* describes the approach adopted across Surrey and the benefits that this brings. The active enhancement role pursued in Surrey is valued and has achieved wide recognition for schemes of excellence from NGOs and industry alike over the past 15 years.

9.20 Many operators establish good relationships with the local community. At some sites, liaison groups which include planning officers and representatives of the local community and the mineral industry are set up so that any issues of concern relating to the development can be discussed and resolved as soon as possible after the problems arise.

Monitoring of the minerals plan

9.21 By law, an annual monitoring report (AMR) should assess:

- the implementation of the local development scheme (timetable for preparing the minerals and waste development framework); and
- the extent to which policies in development plan documents are being implemented.

9.22 An AMR has been prepared by the county council for over twenty years and the format will be adapted to include details of progress against the performance indicators set out in the core strategy to help identify whether the minerals plan is being implemented successfully. The effectiveness of the *Surrey Minerals Plan* will be assessed annually, and it will be reviewed if deemed necessary.

9.23 There are two core regional indicators concerning minerals, which are the production of primary land-won aggregates and the production of secondary and recycled aggregates. An early review of the *Surrey Minerals Plan* may be necessary if it becomes clear that the overall approach to mineral working in

Surrey is not delivering what is required. A review may also be triggered by external events such as significant changes in government policy or the economy of the region.

9.24 In more minor cases a review of the *Minerals Core Strategy* may not be required, and reviews of individual development plan documents will be brought forward as appropriate. Supplementary planning documents may be produced or reviewed over a faster timescale, which reflects their lower statutory weight in determining planning applications. However, they can be kept more up-to-date and reflect faster changing issues such as site restoration.

9.25 The core strategy includes policies which are aimed at managing development through the lifetime of the minerals plan. These will be monitored to determine the extent to which they are being successfully implemented. Where the policies are not being implemented effectively, reasons will be identified in the AMR if it is possible to determine them.

9.26 The MPA is required to monitor any significant environmental effects of implementing the minerals plan, to identify any adverse effects and appropriate remedial action. The Environmental Report of the combined Strategic Environmental Assessment and Sustainability Appraisal includes recommendations for monitoring the social, economic and environmental effects of the minerals plan. Any monitoring requirements arising from this process will be incorporated within the minerals plan, and may include working in partnership with other bodies that collect or hold relevant monitoring data.

Monitoring effectiveness of the core strategy policies

9.27 Table 2 on page x sets out a framework for monitoring the core strategy of this plan, the targets, and the relevant indicators identified for each policy.

Table 1 Implementation schedule for core strategy policies

Policy MC1 Location of mineral development in Surrey	
Relevant Objectives	O3.1, O3.2, O3.3, O4.1, O4.3
National policies	PPS1, PPS12, MPS1
Key outcomes	▪ *Primary Aggregates DPD* prepared showing preferred areas ▪ Mineral development confined to existing sites, preferred areas, areas of search or safeguarded areas ▪ Safeguard existing and planned areas and facilities for mineral development
Key agencies	Mineral planning authority, mineral operators, landowners/developers

Policy MC2 Protection of key environmental interests in Surrey	
Relevant Objectives	O3.1, O3.2, O3.3, O4.1, O4.3
National policies	PPS1, PPS5, PPS7, PPS9, PPS12, MPS1, MPS2
Key outcomes	▪ *Primary Aggregates DPD* prepared showing preferred areas ▪ Mineral development confined to existing sites, preferred areas, areas of search or safeguarded areas ▪ Consult Natural England on proposals within or affecting AONBs or SSSIs ▪ Consult English Heritage on proposals affecting heritage interests ▪ Screen proposals within vicinity of internationally recognised sites of biodiversity interest for Habitats Regulations Assessment and consult Natural England
Key agencies	Mineral planning authority, Natural England, English Heritage, Environment Agency, mineral operators, landowners/developers

Policy MC3 Mineral development in the green belt	
Relevant Objectives	O3.1, O3.2, O3.3, O4.1, O4.5, O6.1, O6.2, O6.3
National policies	PPS1, PPG2, PPS12, MPS1, MPS2
Key outcomes	▪ *Primary Aggregates DPD* prepared showing preferred areas ▪ Mineral development confined to existing sites, preferred areas, areas of search or safeguarded areas
Key agencies	Mineral planning authority, Natural England, English Heritage, mineral operators, landowners/developers

Policy MC4 Efficient use of mineral resources	
Relevant Objectives	O1.1, O1.2, O1.3, O2.1, O2.4
National policies	PPS1, PPS10, PPS12, MPS1
Key outcomes	▪ LDF policies on sustainable construction adopted across Surrey ▪ Development uses more resource efficient methods of construction including use of recycled aggregates ▪ Borrow pits used for major construction projects to safeguard scarce resources for higher grade use
Key agencies	Mineral planning authority, construction industry, local planning authorities, government

Policy MC5 Recycled and secondary aggregates	
Relevant Objectives	O1.1, O1.2, O1.3, O2.1, O2.4, O3.3
National policies	PPS1, PPS10, PPS12, MPS1
Key outcomes	▪ LDF policies on sustainable construction to encompass site waste management plans ▪ Prepare *Aggregates Recycling DPD* showing preferred sites ▪ Network of sites with productive capacity sufficient to meet target throughput of 0.8mtpa by 2016 and 0.9mtpa by 2026 ▪ Developers to bring forward additional sites as market demand for recycled aggregate develops
Key agencies	Mineral planning authority, local planning authorities, landowners/developers, mineral and waste operators, Environment Agency

Policy MC6 Safeguarding mineral resources and development	
Relevant Objectives	O2.2, O2.3, O2.4, O5.5
National policies	PPS1, PPS12, MPS1
Key outcomes	▪ Inclusion of minerals safeguarding areas on proposals maps of local development frameworks ▪ Protocol adopted for consultation on non-mineral development within safeguarding areas ▪ Secure prior extraction where other development is considered justified ▪ Safeguard existing rail aggregate depots and other mineral and recycling facilities
Key agencies	Mineral planning authority, local planning authorities, landowners/developers, mineral operators

Policy MC7 Aggregate minerals supply	
Relevant Objectives	O3.1, O4.1, O4.3
National policies	PPS1, PPS12, MPS1
Key outcomes	▪ *Primary Aggregates DPD* prepared showing preferred areas for mineral working to 2026 ▪ Seek to maintain at least a seven year landbank of permitted reserves of aggregates ▪ Review *Primary Aggregates DPD* in light of significant changes to sub-regional apportionment for aggregates
Key agencies	Mineral planning authority, mineral operators, landowners/developers

Policy MC8 Silica sand supply	
Relevant Objectives	O3.1, O4.1, O4.3
National policies	PPS1, PPS12, MPG15
Key outcomes	▪ Preferred area and areas of search for silica sand production identified and safeguarded ▪ Seek to establish a landbank of at least ten years of permitted reserves for production at North Park Quarry ▪ MPA satisfied that significant adverse impacts on interests of national importance will be adequately mitigated
Key agencies	Mineral planning authority, mineral operators, Natural England, English Heritage, Environment Agency, land owners

Policy MC9 Brick clay supply	
Relevant Objectives	O3.1, O4.3
National policies	PPS1, PPS12, MPS1
Key outcomes	▪ Areas of search for potential brick clay extraction identified and safeguarded ▪ Seek to maintain a twenty five year landbank of permitted reserves to serve existing brickworks ▪ MPA satisfied that significant adverse impacts on interests of national importance will be adequately mitigated
Key agencies	Mineral planning authority, mineral operators, landowners/developers

Policy MC10 Other non-aggregate minerals supply	
Relevant Objectives	O2.1, O2.2, O3.2, O4.3
National policies	PPS1, PPS12, MPS1, MPG13
Key outcomes	▪ Potential resources of fuller's earth safeguarded ▪ Further working of chalk or peat opposed unless proven need is sufficient to outweigh potential impacts of development ▪ Small scale production of building stone for conservation of the built heritage supported
Key agencies	Mineral planning authority, Natural England, English Heritage, Environment Agency, mineral operators

Policy MC11 Mineral extraction outside preferred areas	
Relevant Objectives	O3.1, O4.3
National policies	PPS1, PPS12, MPS1
Key outcomes	▪ Majority of permissions are within preferred areas ▪ Landbanks are maintained where possible ▪ Minor extensions of existing workings prevent sterilisation of potentially valuable resources ▪ Sands suitable only for lower specification uses are available to substitute for higher grade minerals where market exists
Key agencies	Mineral planning authority, Environment Agency, mineral operators, landowners/developers

Policy MC12 Oil and gas development	
Relevant Objectives	O3.2, O4.2, O4.3, O4.5, O5.2, O5.4, O6.2
National policies	PPS1, PPS12, MPS1
Key outcomes	▪ Commercial hydrocarbon deposits within Surrey are identified and assessed ▪ MPA satisfied that no significant adverse impacts will be associated with exploration, appraisal or production of oil and gas
Key agencies	Secretary of State for Energy and Climate Change, mineral planning authority, oil and gas exploration and production companies

Policy MC13 Underground gas storage	
Relevant Objectives	O4.2, O4.3, O4.5, O5.4, O6.2
National policies	PPS1, PPS12, MPS1
Key outcomes	▪ Identification and exploitation of geologically suitable structures for underground gas storage in Surrey ▪ Ensure that no significant adverse impacts will be associated with appraisal or use of geological structures suitable for gas storage ▪ Ensure that significant adverse impacts related to surface facilities associated with underground gas storage will be suitably mitigated
Key agencies	Secretary of State for Energy and Climate Change, mineral planning authority, oil and gas exploration and production companies

Policy MC14 Reducing the adverse impacts of mineral development	
Relevant Objectives	O3.2, O4.1, O4.2, O4.3, O4.4, O4.5, O5.1, O5.3, O5.4, O6.1, O6.2, O6.3
National policies	PPS1, PPS5, PPS7, PPS9, PPS12, PPS23, PPS25, PPG2, PPG14, PPG24, MPS1, MPS2, MPG5, MPG7
Key outcomes	▪ Adverse impacts from minerals development addressed through the planning applications process and environmental impact assessment, including the use of conditions and legal agreements attached to planning permissions ▪ Minerals development is regulated and managed in ways that ensure that there are no significant adverse impacts
Key agencies	Mineral planning authority, Natural England, English Heritage, Environment Agency, airport operators

Policy MC15 Transport of minerals	
Relevant Objectives	O5.1, O5.2, O5.3, O5.4
National policies	PPS1, PPS12, PPG13, MPS1
Key outcomes	▪ Transport assessments are provided as part of planning applications ▪ Adverse impacts from minerals transportation are addressed through the planning applications process and environmental impact assessment, including the use of conditions and legal agreements attached to planning permissions ▪ Minerals development is regulated and managed in ways that ensure that there are no significant adverse impacts from transportation.
Key agencies	Mineral planning authority, Highway Authority, Highways Agency, mineral operators, landowners/developers

Policy MC16 Rail aggregate depots	
Relevant Objectives	O5.1, O5.3, O5.4, O5.5
National policies	PPS1, PPS12, PPG13, MPS1
Key outcomes	▪ Existing rail aggregate depot sites are safeguarded to maintain ability to supply a proportion of demand via imported aggregates ▪ Need for additional depot sites to supplement local land-won aggregate supply considered on individual merits ▪ Adverse impacts from rail aggregates depots are addressed through the planning applications process and environmental impact assessment, including the use of conditions and legal agreements attached to planning permissions
Key agencies	Mineral planning authority, Network Rail, rail operating companies, mineral industry, landowners/developers

Policy MC17 Restoring mineral workings	
Relevant Objectives	O4.4, O6.1, O6.2, O6.3
National policies	PPS1, PPS5, PPS7, PPS9, PPS12, PPS25, PPG2, MPS1, MPS2, MPG7
Key outcomes	▪ Restoration schemes for development of all preferred areas submitted as part of planning applications ▪ *Minerals Site Restoration* SPD prepared ▪ Industry/community/local authority liaison groups to set framework for restoration and after-use are promoted
Key agencies	Mineral planning authority, local authorities, mineral operators, local community, land management agencies, non governmental organisations, Environment Agency

Policy MC18 Restoration and enhancement	
Relevant Objectives	O4.4, O6.1, O6.2, O6.3
National policies	PPS1, PPS5, PPS7, PPS9, PPS12, PPS25, PPG2, MPS1, MPS2, MPG7
Key outcomes	▪ Wider benefits such as to biodiversity and climate change mitigation secured as part of restoration of mineral workings ▪ Links developed between restoration of minerals sites and broader green infrastructure initiatives
Key agencies	Mineral planning authority, local authorities, mineral operators, local community, land management agencies, non governmental organisations, Environment Agency

Table 2 Monitoring framework for core strategy policies

Types of indicator

Process indicators have been identified where the plan specifies other process-related activities that are required such as the preparation of other planning documents.

Contextual indicators provide a backcloth against which to consider the effects of policies and inform the interpretation of output indicators.

Output/outcome indicators measure the performance of policies in terms of their quantified results. They cover direct planning outputs of the implementation of the policies, along with any outcomes of relevance to wider considerations.

Remedial Action

Remedial action has been identified where issues that relate to the plan as a whole are being considered. No specific actions are identified against the development management aspects of the plan as the starting point is that the policies will be implemented as intended and consequently development will only be permitted when compliant with the policy requirements in all respects. The Annual Monitoring Report has a commentary on planning decisions taken each year and this will be the appropriate place in which to discuss detailed implementation issues against the targets indicated.

Database

The number of planning applications determined by the MPA each year will form the basic source of most monitoring information. Decisions made on appeal will also be monitored.

Policy reference	Nature of Target	Type of Indicator	Indicator	Data source	Prompts for consideration of remedial action
MC1 Spatial strategy	Identifying potential areas for future mineral development	Process	*Core Strategy DPD, Primary Aggregates DPD* and *Aggregates Recycling DPD* prepared in accordance with adopted MWD*S*	Surrey CC	Reduction of preferred areas for aggregates to less than 75% of those identified in plan
		Contextual	Number of planning permissions for new sites for mineral working and aggregates recycling		Reduction of sites identified for aggregates recycling to less than 50% of those identified in plan
		Output	Number of permissions for new sites for mineral working falling within preferred areas and areas of search (Target 100%)		Two permissions or more for mineral working in response to MC11 i)
		Output	Number of permissions for new sites for aggregates recycling falling within identified sites (Target 100%)		
MC2 Spatial strategy	Protecting integrity of sites designated of international importance for biodiversity from adverse impacts of minerals development	Contextual	Number of appropriate assessments undertaken at planning application stage	Surrey CC	
		Output	Number of planning applications refused where adverse effect on the integrity of a designated site is identified in appropriate assessment (Target 100%)		

Policy reference	Nature of Target	Type of Indicator	Indicator	Data source	Prompts for consideration of remedial action
MC2 Spatial strategy	Opposing mineral development in or affecting designated sites of national landscape, nature conservation or heritage importance unless reasons of national need are paramount.	Contextual Output	Number of planning applications affecting AONBs or SSSIs Number of planning applications refused where public interest has not been demonstrated and landscape, biodiversity or heritage interests would not be adequately safeguarded (Target 100%)	Surrey CC	
MC3 Spatial strategy	Protection of the Green Belt	Contextual Output Output	Number of planning applications for mineral development within the Green Belt Number of planning applications for mineral extraction refused where requirements of Green Belt policy associated with working and restoration, have not been met (Target 100%) Number of planning applications for other mineral development refused where very special circumstances are not sufficient to outweigh harm to the Green Belt (Target 100%)	Surrey CC	

Policy reference	Nature of Target	Type of Indicator	Indicator	Data source	Prompts for consideration of remedial action
MC4	Efficient use of mineral resources	Process	Local development frameworks in Surrey to include policies on sustainable construction and seek to encourage the use of recycled aggregates	LDFs	Failure of LDFs to include sustainable construction policies that promote efficient use of mineral resources
		Contextual	Number of MPA responses relating to the need to address efficient use of mineral resources in LDF policies development briefs or design guides		
		Output	Number of MPA responses that have resulted in the inclusion of, or revision to, a draft policy in the LDF		
	Supporting use of borrow pits for major construction projects	Contextual	Number of planning applications for borrow pits permitted		
		Output	Number of permissions for borrow pits that meet criteria (Target 100%)		

Policy reference	Nature of Target	Type of Indicator	Indicator	Data source	Prompts for consideration of remedial action
MC5	Provision of productive capacity for the supply of recycled and secondary aggregates	Process	*Aggregates Recycling DPD* prepared in accordance with MWDS	Surrey CC	Insufficient productive capacity for the supply of recycled and secondary aggregates at a rate of 0.8mtpa by 2016
		Contextual	Quantity of recycled and secondary aggregates produced per annum		
		Output	Number of permissions on sites in the *Aggregates Recycling DPD*		
		Output	Supply of recycled and secondary aggregates (Target - steady increase in supply with milestone of at least 0.8mt by 2016)		
MC6	Safeguarding mineral resources, sites and infrastructure from alternative development	Process	Inclusion of mineral safeguarding areas in local development framework proposals map	Local Planning Authorities and Surrey CC	Failure of LDFs to incorporate mineral safeguarding areas and adopt consultation protocol
		Process	Agree and adopt consultation protocol on safeguarding with LPAs (Target to agree protocol within six months of adoption of *Core Strategy DPD*)		
		Contextual	Number of consultations on mineral safeguarding received by MPA		One permission or more for other forms of major development within safeguarding areas
		Output	Number of planning permissions following objection from SCC on the grounds of the need to safeguard land for mineral development (Target 0%)		

Policy reference	Nature of Target	Type of Indicator	Indicator	Data source	Prompts for consideration of remedial action
MC7	Maintaining supply of aggregates minerals	Process Output/ Outcome	*Primary Aggregates DPD* prepared in accordance with MWDS. Landbank of permitted reserves for primary aggregates (Target to maintain at least seven year landbank)	Surrey CC	Failure to reach a seven year landbank within two years of adoption of the *Primary Aggregates DPD* and thereafter to maintain at least a seven year landbank for two or more years
MC8	Maintaining supply of silica sand	Output/ Outcome Output	Landbank of permitted reserves at silica sand production sites (Target to maintain at least ten year landbank) Number of planning permissions on land within preferred areas or areas of search for silica sand (Target 100%)	Surrey CC	Failure to reach a ten year landbank within a year of adoption of the *core strategy DPD* and thereafter to maintain at least a ten year landbank for three or more years
MC9	Maintaining supply of brick clay	Output/ Outcome Output	Landbank of permitted reserves supporting brick clay production (Target to maintain 25 year landbank at active sites) Number of planning permissions for clay extraction within the areas of search (Target 100%)	Surrey CC	Failure to maintain a 25 year landbank for eight or more years

Policy reference	Nature of Target	Type of Indicator	Indicator	Data source	Prompts for consideration of remedial action
MC10	Demand for other non-aggregate minerals supply	Contextual	Number of planning applications for other non-aggregate minerals	Surrey CC	
		Output	Number of planning applications refused for chalk, fuller's earth and peat on grounds that need for the mineral did not outweigh adverse impacts of the development (Target 100%)		
		Output	Number and scale of planning permissions for building stone extraction		
MC11	Mineral working outside preferred areas	Contextual	Number of planning applications outside preferred areas	Surrey CC	
		Output	Number of planning permissions outside preferred areas and reasons for approval		
MC12	Conventional oil and gas development	Contextual	Number of planning applications for oil and gas development	Surrey CC	
		Output	Number of planning permissions for exploration, appraisal or production of oil and gas in accordance with policy (Target 100%)		

Policy reference	Nature of Target	Type of Indicator	Indicator	Data source	Prompts for consideration of remedial action
MC13	Provision for gas storage underground and treatment facilities	Contextual Output	Number of underground gas storage facilities permitted Number of planning applications for associated development where there would be a significant adverse impact on community or environment (Target 100% refused)	Secretary of State for Energy and Climate Change and Surrey CC	
MC14	Reducing adverse impacts of mineral development on communities and the environment	Output	Number of planning applications where there would be a significant adverse impact on community or environment (Target 100% refused)	Surrey CC	
MC15	Addressing the adverse transport impacts of mineral development	Output/ Outcome Output	Number of planning permissions that provide alternative methods of transporting minerals other than by road Number of planning applications where there is an unresolved objection from the Highways Agency or Highway Authority (Target 100% refused)	Surrey CC Highways Agency	

Policy reference	Nature of Target	Type of Indicator	Indicator	Data source	Prompts for consideration of remedial action
MC16	Provision of rail aggregate depots	Contextual	Number and throughput of rail aggregate depots in Surrey.	Surrey CC and Local Planning Authorities	Closure of one or more rail aggregate depots
		Output	Number of planning permissions for rail aggregate depots, new or replacement		
		Output	Number of planning permissions following objection from SCC where there is the need to safeguard land for rail aggregate depots (Target 0%)		One permission or more for other forms of major development within safeguarding areas
MC17	Restoration of mineral workings	Contextual	Number of restoration awards given to sites in Surrey	Mineral Products Association	
		Output	Number of planning applications with restoration schemes that reflect advice in the *Mineral Sites Restoration SPD* (Target 100%)	Surrey CC	
		Output	Number of planning applications to extend time periods for restoration		One planning application or more on a single site for an extension to the timescale for restoration

Policy reference	Nature of Target	Type of Indicator	Indicator	Data source	Prompts for consideration of remedial action
MC18	Restoration and enhancement	Contextual Output/ Outcome	Links between mineral site restoration and surrounding area enhancement Percentage of planning permissions contributing towards the Biodiversity Action Plan, enhancement schemes or other wider benefits (Target 100%)	Surrey CC	