5 GOOD PRACTICE FOR MINERAL SITES RESTORATION AND ENHANCEMENT. PART 1 – THE RESTORATION VISION

Contents

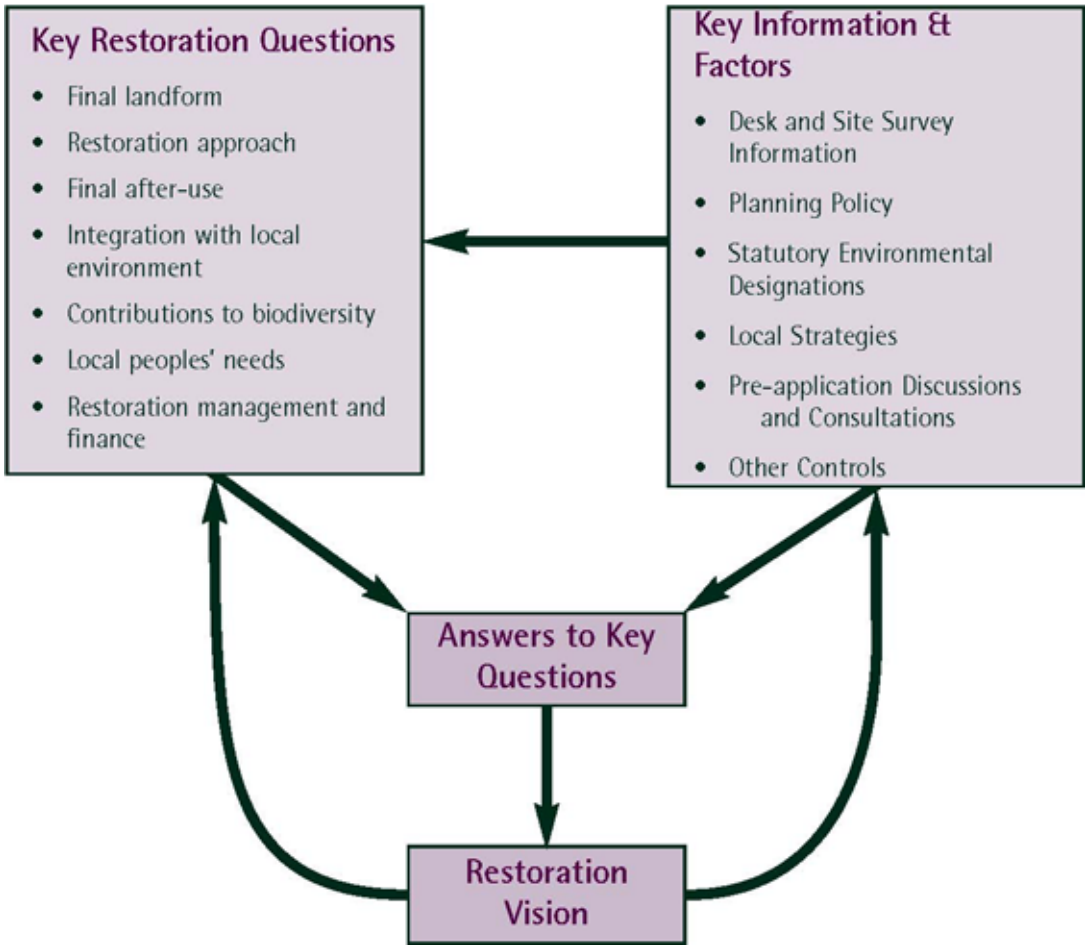
Introduction

5.1 Restoration led mineral planning is concerned with identifying what is to be achieved by a restoration scheme right at the start of the proposal and then managing its implementation through to establishment of the after-use on site. It is a vision of the final appearance and characteristics of a site including the after-use, once extraction, restoration and aftercare have been completed

5.2 This section looks at how a restoration proposal should be approached and in particular, how a restoration vision can be developed. It encourages consideration of a series of key questions about a site and scheme right at the start of the process, when a proposal is being drawn up. The answers to these questions will in turn help to shape and form

the restoration vision for the site and scheme. This section then looks at the factors which have an influence on those answers: factors including; baseline surveys, pre-application discussions, land use policies, planning designations, strategies and other controls. Diagram 1 illustrates the relationship between the vision for restoration, key questions, answers and influencing factors.

Diagram 1. Restoration vision, questions and factors.



Key Restoration Questions

5.3 In order to achieve a restoration led scheme a clear vision of how the site is to be restored is needed from the start. This is because the end restoration scheme and after-uses influence the way the site is operated, managed, restored and the type of aftercare required.

5.4 The following key questions need to be asked about the site and the restoration scheme. The answers to these questions should be used to draft the restoration or enhancement scheme. The answers should be reviewed during the pre-application stages as more information becomes available from pre-application discussions, consultations and detailed survey work.

5.5 In considering the possible restoration outcomes for a mineral working, key restoration and enhancement questions are:

A. What will be the final landform of the site?
B. How will the site be restored?
C. What after-use is appropriate?
D. How will the restored site be integrated back into the local environment?
E. How will the restoration scheme make any contribution to biodiversity?
F. What do local people want from the site and how will the scheme incorporate their views?
G. How will the restoration be finished and managed during operations and in the future?

How can these Questions be Answered?

5.6 The answers to the above questions are closely interlinked and influenced by common factors i.e. land use policy and planning designations, local strategies and other controls. They cannot be answered in isolation i.e. by one person or by one company. They should therefore evolve and develop as a result of a series of pre-application discussions, site and desk top surveys and from an applicant's own ideas. Once the questions have been answered, the information should be included in any pre-application documents and in the application itself, i.e. in the supporting statement and in the Environmental Statement.

The Questions

5.7 The following sub-sections look at each of the questions, in turn, and the factors that influence their answers.

A. What will be the final landform of the site?

5.8 The final landform needs to be agreed at the start of a proposal so that gradients and drainage relating to that landform can be incorporated into the overall design of the restoration scheme. In deciding the final landform for a site it is generally preferred if the gradients of the final landform imitate the topography of the surrounding landscape. If the final landform is to be different from the surrounding topography, applicants should discuss this with the MPA, the Environment Agency, and Natural England during pre-application discussions to ensure there are no overriding planning or environmental objections to this change.

5.9 The final landform of the site can be achieved in two ways: either materials can be imported to restore the original landform of a site or a new landform can be created which is shaped and merged into the

existing landscape, using on site overburden and surplus materials. In recent years the availability of suitable fill material, that is inert waste, has declined. This coupled with a general intention to treat restoration as an opportunity to create features which provide long-term benefits for local communities has lead to conservation and amenity uses for restored sites becoming more common.

5.10 The final landform of the site is usually therefore a decision based on a combination of the following factors:

- the proposed after-use of the site (Table 1 in Annex A of MPG7 provides information on the slopes of land in relation to particular after-uses.);
- slope and land stability;
- the landscape and visual character of the surrounding area;
- the availability of suitable fill material; and
- the amount of mineral required.

5.11 Applicants should also consider that there may be other factors that effect or indirectly influence final landform. For example, the high water table in parts of Surrey mean that flooding of restored sites can be a factor to consider when designing the shape of the final site. In addition climate change may mean that future water levels are different in the county and banks of wet restoration schemes may need to be designed to take account of this. Climate change will have an increasing impact on proposals and consideration of its implications should be built into any restoration design, particularly wetlands. Some wetland sites could be used for winter (or summer) flood alleviation. An EU funded project (SAND) examined these issues and its Handbook findings are covered within Appendix 2). Applicants should consult the Environment Agency during pre-application discussions about such matters.

Contour Plans

5.12 All applicants will be required to provide detailed plans as part of the application documentation showing pre-excavation and post restoration contours. This should show how the restored landform blends with the existing topography. If a scheme is permitted the MPA usually attaches conditions to any planning permission granted to secure the contours and gradients of the final landform.

B. How will the site be restored?

5.13 Whether to use fill material to restore a site and the restoration approach employed are key factors in shaping the restoration scheme. Decisions on these issues in turn influence answers to a number of other questions relating to landform and after-use.

Restoration involving Fill

5.14 Whether a site is suitable to be restored using waste material will depend on a number of factors. For example the characteristics and landform of the site, the after-use and the fill material to be used. Although, in recent years the trend of restoring mineral voids using waste materials has been in decline, it will still be appropriate in Surrey for certain sites to be restored by landfill. The site may be filled to achieve a restoration of pre-excavation levels or partially filled to create a new landform.

5.15 There are a number of different waste materials that can be used to fill or partially fill mineral voids including; overburden/soils, inert and non-inert waste materials. It is anticipated that in the longer term there will be a significant reduction in the amounts of non inert or biodegradable waste disposed of to landfill. This is principally as a result of concerns of the environmental impacts of landfilling such waste. The Surrey Waste Plan includes an aim (policy CW4: Waste Management Capacity) to achieve the regional target for diversion from landfill (Policy W5: Targets for Diversion from Landfill draft South East Plan). In acknowledgement of this position, none of the indicative restoration schemes in this SPD envisage restoration with non inert waste. Nevertheless, for completeness the following considerations are set out for restoring mineral workings utilising a range of wastes.

5.16 Key considerations as to the type of fill will be:

- the final after-use;
- the availability of suitable fill material;
- the bulking and settlement characteristics of the fill material and the influence these may have on the intended after-use of the site; and
- any particular physical characteristics or chemical properties of the fill which could adversely affect groundwater or would have potential to affect, adversely or beneficially, plant growth following restoration. Restoration involving Controlled Wastes

5.17 Controlled waste encompasses household, industrial and commercial and. inert wastes.
If it is intended that a site will be restored using controlled wastes, it is vital that the engineering requirements and objectives for the fill are integrated into the restoration proposals. Proposals involving fill will not only require planning permission, but also an Environmental Permit issued by the Environment Agency. Pollution control measures will influence the design of the restoration scheme and the objectives set and may limit the suitability of the site to different after-uses. Applicants will need to work closely with both the MPA and Environment Agency during pre-application discussions to ensure that pollution control requirements do not compromise planning issues and vice versa.
Restoration without Fill - Low Level or Partial Fill Restoration

5.18 In Surrey there has been an increasing trend towards low level or partial fill restoration and it is expected that this trend will continue. A number of the indicative restoration schemes envisage such approaches to their restoration. In areas where the base of the void is above the water table, the site can be worked and the excavated void shaped to a landform that is appropriate to the topography of the local area.

5.19 However, with low level restoration there is a risk of introducing alien landform, features and breaks into the landscape. Therefore in assessing the suitability of a low level restoration for a site, applicants should pay attention to the gradients and contours of the proposed landform and their relationship with the local topography and landscape character. Planting can be used to screen steep breaks and achieve a good landscape fit.

Restoration without Fill - Wet Restorations

5.20 In a number of parts of Surrey the water table is naturally high and/or flooding is an issue. Wet or partial fill/wet restorations are preferred in these locations. Wet restoration can facilitate a wide range of after-uses including water recreation and wetland habitats. Applicants should discuss the suitability of different after-uses with the AMPA, district planning authority and the Environment Agency. In addition wet restorations may also play a part in flood alleviation both in terms of flood storage and the routeing of flood flows. Where appropriate applicants should have regard to the relevant Catchment Flood Management Plans.

5.21 For any after-use applicants should consult the relevant Local Development Framework and the Environment Agency to see if flooding will be a particular issue for their restoration proposal. Applicants must undertake a Flood Risk Assessment where there is a risk of flooding.

5.22 Where a wet restoration is proposed the applicant should provide details of; depths and area of water to be created; hydrology, water quality, bank profiles, island creation, prevailing wind direction, preservation and use of soils, treatment and planting of water and land margins. The exact details will depend upon the intended after-use for the water body. The experience of the MPA is that for wet restoration schemes to be successful, the applicant needs to have decided the actual after-uses that the water body will be put to, as different recreational uses and different types of nature conservation and wetland habitats have different requirements and need different conditions. For nature conservation uses on wetland restoration the provision of features such as islands, shallows and gently sloping shores are important for habitat creation. Table 5 of MPG7 provides guidance notes on the operational requirements for different types of water based recreation activities.

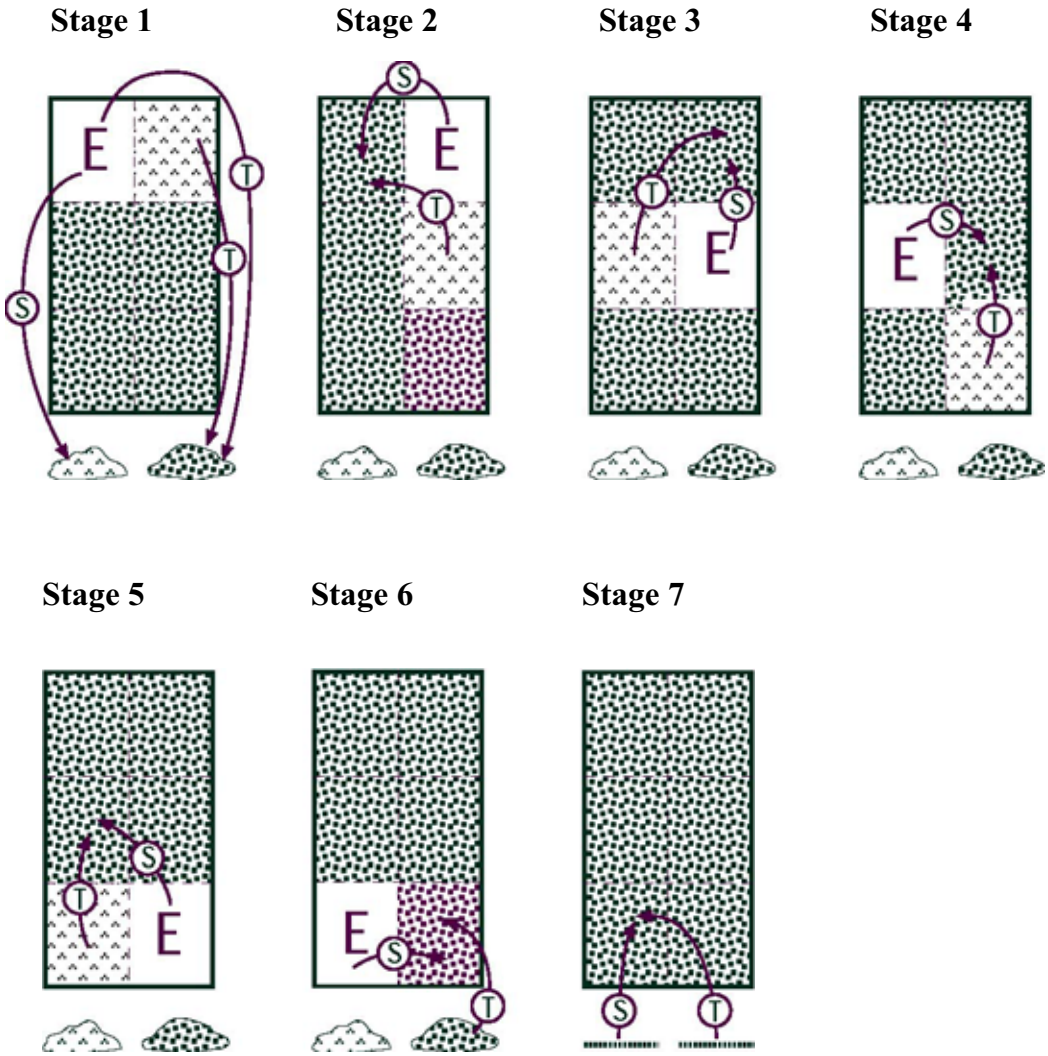
Planning conditions are usually imposed to secure the excavation contours and gradients for wet restoration schemes.

5.23 In those parts of Surrey within airport safeguard zones, restriction may apply on wet restorations, depending upon site location, use, and design. Discussion with the relevant airport operator should be held.

Will the site be restored progressively?

5.24 On the sands and gravels in Surrey, it is common practice for sites to be phased or progressively restored. This limits the impact of the development on the environment and local people. Phased or progressive restoration usually involves stripping the soils from the plant and stockpile areas, and the first phase of the development. The soils are then put into store. Thereafter soils are stripped and directly replaced on phases that have been worked out - see Diagram 2.

Diagram 2. Model Plan of Progressive Restoration Enabling Direct Replacement of Soil



5.25 In designing the working and phased restoration of a site, applicants should consider the issues listed below, as they will help to deliver a

better scheme. Where appropriate they should be incorporated in the restoration scheme.

- Phasing should follow a logical sequence, preferably working through the site and finishing back at the site entrance.
- Avoid changing the routeing of haul roads, as this will minimise the need for additional disturbance to the site.
- Phase boundaries should as far as possible reflect the different soil units to be handled.
- Phasing arrangement should avoid the need for haul roads to cross unstripped or restored soils.
- The location of plant/processing/storage areas should be positioned such that they are on the last areas to be restored.
- The working and restoration phasing should minimise the area of land not in cultivation either pre-working or post restoration. This is because soils are best conserved by being farmed rather than stored where deterioration may occur. Active farming also reduces the risk of land becoming derelict or used for storage or haul routes.
- If existing agricultural drainage or water supplies will be disrupted during phasing, remedial works will need to be included in the scheme.
- Preferably only one temporary diversion of rights of way should take place. Ideally each phase of working should not need a new re-routeing to allow public passage.

C. What after-use is appropriate?

5.26 There are many different after-uses that a restored or enhanced mineral working can be put to. Appendix 1 looks at specific issues relating to agriculture, forestry/woodland, nature conservation and recreation after-uses. These categories of after-use are discussed individually as these are the main after-uses that are appropriate to a predominantly Green Belt county such as Surrey.

5.27 The appropriateness of an after-use to a particular mineral site depends on a variety of factors as shown by diagram 3. The following paragraphs consider a number of these factors in more detail. The remaining factors are examined elsewhere in this advice as they also influence other decisions in restoration or enhancement planning.

5.28 Although the following section talks of a singular after-use, in reality it isoften more appropriate for a mineral site to be restored to a mix of after-uses i.e. a multi-use site or to zone a site so that parts can be put to different after-uses. A multi-use or zoned site may be more complicated to plan and restore, but can ultimately produce a better scheme, which fits in with existing land-use patterns and the surrounding local environment.

5.29 In planning a multi-use site applicants will need to consider whether the uses are compatible and can be integrated within the site or whether they may conflict. In circumstances where the after-uses are different, the applicant will need to decide how the uses will be segregated. There are various different methods of segregation including; temporal zoning, spatial zoning and landform segregation. In addition how the multiple uses will be managed on site will need to be considered.

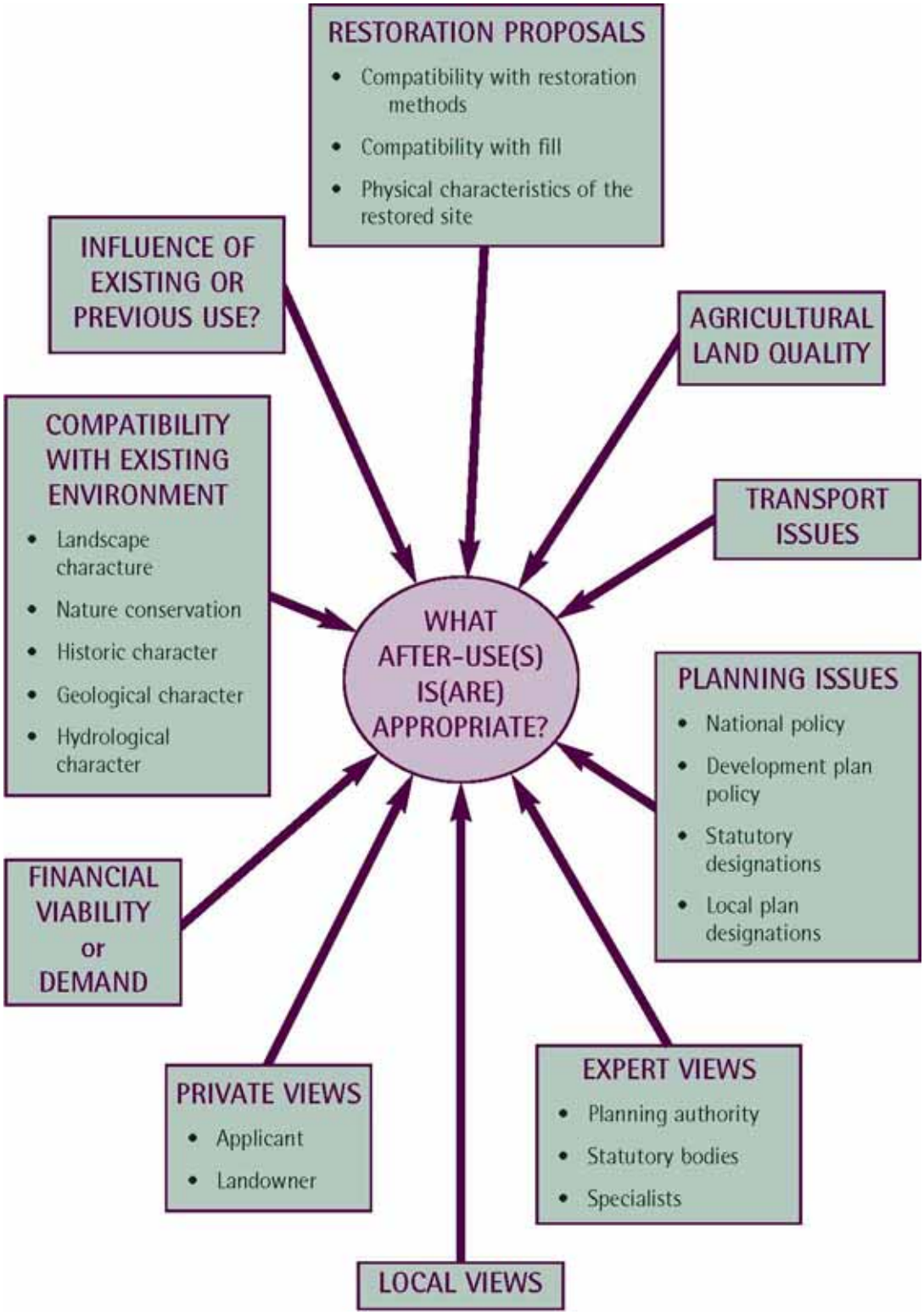
5.30 The compatibility of any after-use with the existing environment is important for its success. It can also be important for its integration into that environment and its acceptance by local people. The appropriateness of any particular after-use to the environment of a site and its surrounding area will depend on the existing characteristics, i.e., its landscape, nature conservation, archaeology, other historic features, geology and hydrology.

5.31 Although a number of these characteristics will be destroyed during excavation works, others will remain, (e.g. along unworked margins,) or can be restored and incorporated into the end scheme. In deciding whether an intended after-use will be compatible with the existing and future environment an applicant needs to understand how each characteristic contributes to the local environment, their relative importance to the site, and whether they need to be re-instated as part of restoration. They also need to understand the affect the characteristic will have on the proposed after-use, if any. This information can be obtained through desk and site surveys and through discussions undertaken as part of pre-application discussions, with specialist and statutory bodies.

Agricultural Quality of the Land

5.32 The quality of the existing land will be an important influence when selecting the final after-use. In the past in Surrey, all land Grade 3a and above (i.e. the best and most versatile land), was expected to be restored to agricultural use, as this land was regarded as a national resource. The Government policy approach is set out in the Rural Strategy 2004. The MPA will not always expect agriculture to be the main after-use on this land, but will expect it to be restored to a condition and quality such that if required the land and soil would be in a state capable of supporting agriculture, i.e. Standard 3(2) set out in Schedule 5 of the Town and Country Planning 1990 Act. It is believed that such an approach leaves greater flexibility for the landowner.

Diagram 3: Factors Influencing the Choice of After-use



5.33 Detailed site survey by persons competent in Agricultural Land Classification (ALC) survey work is the way to accurately determine the land grade and soil resources on site. Natural England should be able to provide applicants with a list of approved consultants.

Influence of Existing or Previous Site Use

5.34 The existing or previous use of a site can influence decisions on after-use. For example:

- The success of an existing use may indicate the suitability of the site physically and/or financially to support a particular after-use. A past history of farming on a site may indicate the suitability of a particular type of agriculture to the physical characteristics of the area.
- A previous land use may restrict the number of suitable future after-uses. Where land has been affected by contamination, this may limit the after-use potential, particularly for agriculture and certain recreational uses.
- If a site is in agricultural use and it is intended to carry on the use following extraction, consideration needs to be given to the impact of mineral extraction on the farm business. Can the farm remain operational and an ongoing viable business during the extraction phases?
- If a site is important for informal recreation and has a number of rights of way (footpaths, bridleways or cycleways) that cross it, consideration needs to be given as to how these rights of way will affect the after-use. Rights of way can influence the type of agricultural restoration and its management, e.g. crop spraying, fencing and livestock.

Compatibility with Restoration Proposals

5.35 As discussed previously, the way a site is to be restored can influence after-use and vice versa. Applicants need to consider whether the after-use is compatible with the method of restoration i.e. phased restoration or end restoration. They also need to consider whether filling the site with waste will restrict the choice of after-use e.g. if a site is to be filled with non-inert waste and restored back to an agricultural after-use issues of landfill gas and leachate control will need to be considered and designed into the scheme at the outset. This is particularly important when an arable after-use is proposed. Advice on this is set out in Defra's "Landfill Gas and Leachate Control Applied to Arable After-use". (MAFF November 1998 PR4869)

5.36 Also the final physical characteristics of the restored site are important considerations when deciding the after-use of a site. The depth, quality and texture of restored soils will influence the type of after-use and vice versa. For example nature conservation after-uses do not always thrive

on good quality topsoils and may only require the sub-soil to be restored. Whereas agricultural and woodland after-uses have specific requirements for soil quality, depth and gradient of the land.

5.37 Similarly the topography of the restored site will also influence the suitability of the site for particular uses. For example agricultural after-uses, particularly arable will require relatively flat relief.

Viability and Demand for After-use

5.38 Usually a key influence on the choice of after-use is its financial viability. Agriculture, forestry and formal recreation all generate an income. However, nature conservation and a number of the informal recreational after-uses generate very little or no income at all, and therefore require funds to cover ongoing maintenance. There are grants available to support the establishment and maintenance of many of these after-uses. Appendix 5 provides a list of funding sources.

5.39 In addition there are management mechanisms such as voluntary organisations and charities that can oversee the long-term maintenance of a site that is used for nature conservation or informal recreation. These bodies can attract grant-aid and sponsorship for the ongoing maintenance of such uses. Appendix 4 outlines the different mechanisms available.

5.40 The demand for a particular type of after-use can be identified by talking to local people, need surveys/market research, consulting the local development plan and local strategies, and discussing demand with the District Council and other bodies who are connected with the particular after-use i.e. the national body or agency, local groups and specialists.

Planning Issues

5.41 The influence of planning policy, the Development Plan and planning designations on restoration and after-use is covered in later paragraphs 5.79 to 5.95.

Transport Issues

5.42 Transportation accessibility and the level and type of traffic generation are important considerations when selecting a particular after-use.

Local and Expert Views

5.43 Later paragraphs 5.65 to 5.67 consider the importance of local people's views on how they want a site restored and the after-use. Paragraphs 5.96 to 5.104 on pre-application discussions look at the importance of consulting the MPA, district planning authority and statutory bodies whilst deciding on a site's restoration.

5.44 The following bodies should be the first contact in considering the following after-uses:

- agriculture – Natural England
- forestry or amenity woodland applicants - Forestry Commission.
- nature conservation – Natural England and Surrey Wildlife Trust RSPB's nature after minerals website
- recreation - Sport England and the national or local body representing a particular sports use and also the relevant district council's leisure department.

5.45 Obviously there will be other statutory bodies that should also be consulted on the suitability of particular after-uses such as the Environment Agency and the county council's countryside legal team for rights of way.

D. How will the restored site be integrated back into the local environment?

5.46 For a mineral restoration scheme to be successful it needs to 'fit' back into the local environment in terms of its landform, landscape character and features, habitats and species, planting and after-use etc. Therefore in devising a restoration led proposal applicants need to consider how their proposal might best achieve this 'fit'. In addition they should also consider whether their scheme could provide opportunities for improving the environment of the site and the locality. The following paragraphs look at the key characteristics of the environment and consider how environmental integration can best be achieved.

Local Area Distinctiveness

5.47 In recent years government guidance and best practice have promoted approaches to environmental management that restore and respect the character and distinctiveness of individual places and areas. To promote understanding of what gives different areas of our countryside their diversity and distinctiveness, the (then) Countryside Agency, and (the then) English Nature collaborated and developed the Countryside Character and Natural Area Approach. In 1997 they published a national map of Countryside Character identifying the different types of landscape character and natural area that exist in England. 159 separate distinctive Countryside Character Areas were identified for England. Within Surrey there are 7 regional Countryside Character Areas. (see Map 1). These are: Thames Valley (115), Thames Basin Heaths (129), Thames Basin Lowlands (114), North Downs (119), Wealden Greensand (120), Low Weald and High Weald (121 & 122). (The numbers in brackets refer to the Countryside Character Area number as shown on Map 1). 120 Natural Areas were identified for England and Wales. They are characterised by physical factors such as geology, soils and topography

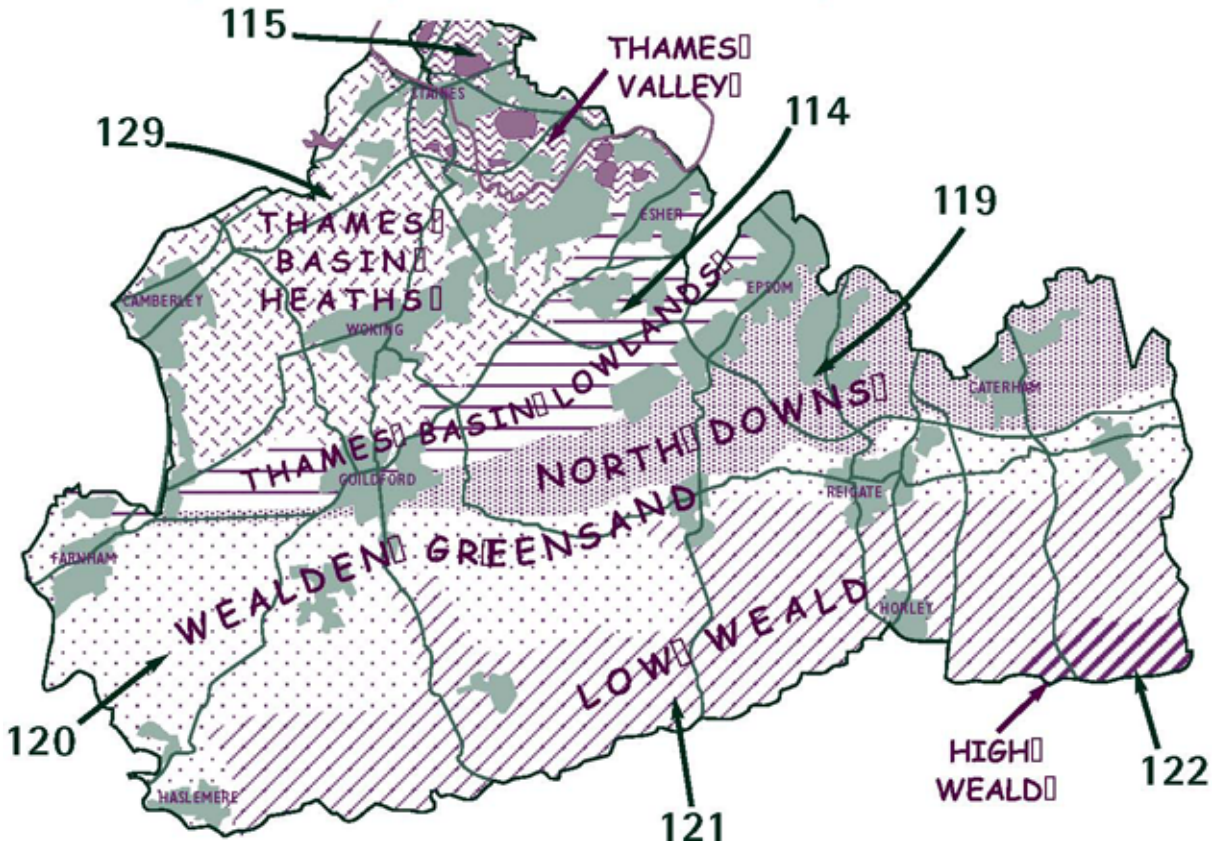
which influence vegetation, landscape features and patterns of rural land use. There are five Natural Areas in Surrey (see Map 2): London Basin (66), North Downs (69), Wealden Greensand (70), Low Weald (73) and High Weald (72). (The numbers in brackets refer to the Natural Area number as shown on Map 2)

5.48 The countryside character approach has been further developed in Surrey's landscape strategy - "The Future of Surrey's Landscape and Woodlands"(1997). Detailed analysis of the regional framework has identified 25 county landscape areas with more subtle landscape variation. A detailed description of each of Surrey's county landscape character areas is provided in the strategy.

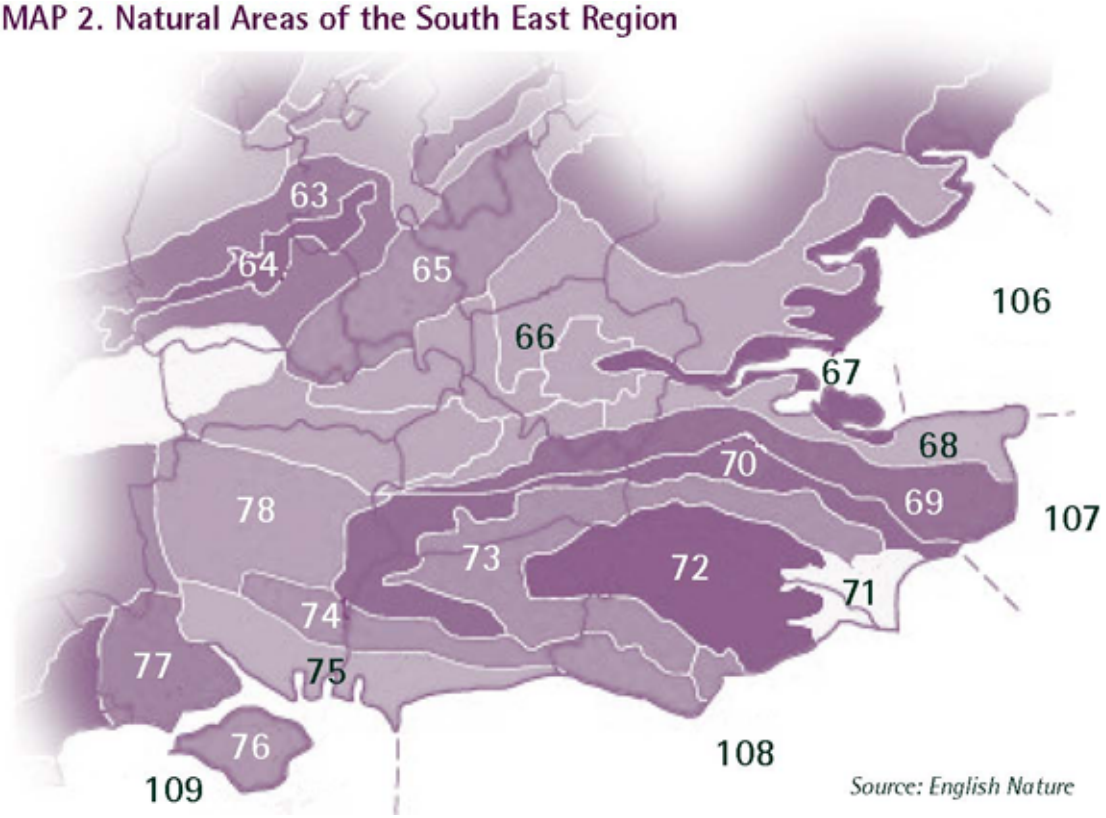
5.49 The regional countryside character and natural areas for Surrey closely follow the geology and topography of the county. Map 3 shows the simplified geology of the county and Diagram 4 illustrates a simplified cross section of geology in Surrey. Comparing Map 3 with Maps 1 and 2 helps to explain how these Countryside Character Area and Natural Area divisions of the county were identified and how geology, landscape and nature conservation relate.

5.50 For a restoration scheme to 'fit' back into the local environment, applicants need to have regard to which of these 'Areas' their site falls into. They then need to ensure that any restoration scheme and after-use works towards restoring the features and characteristics that make up these distinctive local areas. Applicants are therefore advised to consult "The Future of Surrey's Landscape and Woodlands - 1997" (which is obtainable from Surrey County Council) and Natural England's Natural Areas descriptions.

MAP 1. Regional Countryside Character Areas in Surrey



MAP 2. Natural Areas of the South East Region



MAP 3. Simplified Geology of Surrey

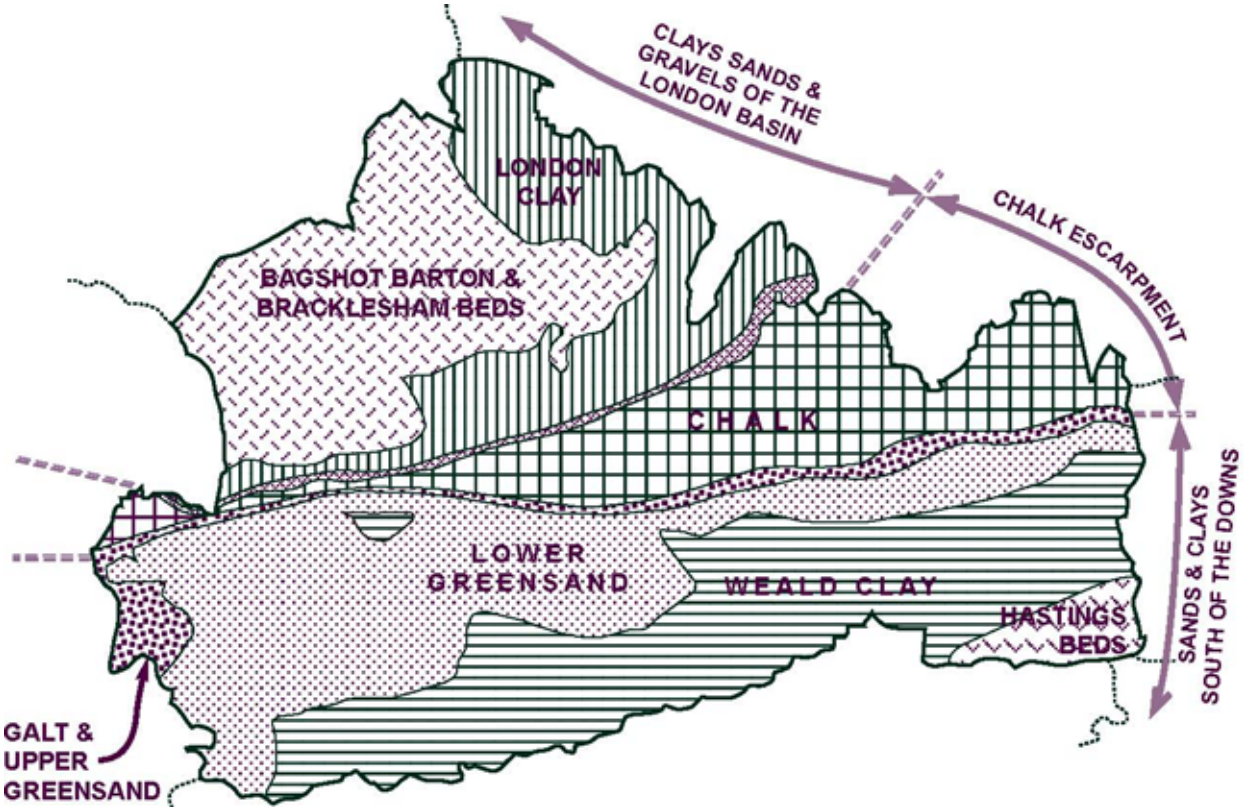
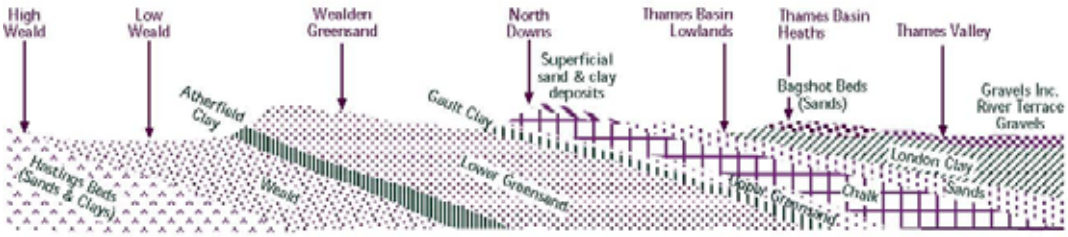


DIAGRAM 4 - Geological Cross Section



and Species Action Plans (SAPs). This Plan in order to include biodiversity targets;

5.51 In addition to the landscape and nature conservation character of the site, applicants are advised to have regard to the historic and geological character. Where appropriate applicants/operators should build archaeological and historic features into the actual restoration of the site. For example, it may be possible to provide promotional and interpretation material about a site's history, including details of historic features or finds discovered during extraction. Archaeological and historical features can be built into restoration schemes, for example, through the retention of historic hedgerows. For geological features it may be possible to permanently retain features known to exist within the

site or uncovered during operations. In many instances where such outcrops are temporarily exposed as part of a site's working, it is valuable if experts are allowed on site to record and examine the geological information. This would equally apply to archaeological information.

Wider Restoration Benefits

5.52 For a restoration scheme to work an application site should not be considered in isolation, but as part of a wider picture. Applicants are encouraged to look at land surrounding their site, whether it be in their ownership or not and consider whether there are opportunities to link the restoration of the proposal site, to other potential sites and thereby create a wider restoration and enhancement package for the locality. This type of wider restoration package should try to link sites not only by landscape features and details, but also with nature conservation and habitat elements e.g. green corridors or perhaps by providing a new network of local footpaths. The Wildlife Trusts have developed the concept of Living Landscapes, which embodies a wider landscape scale approach, Whilst SEEBF have identified BOAs (Biodiversity Opportunity Areas) seeking the same large scale corridor approach.

5.53 Before drawing up a detailed restoration package, applicants are advised to discuss their ideas with the county council's Restoration and Enhancement Officer, who will be able advise on this type of wider scheme and may be aware of opportunities and grants.

5.54 This best practice approach is supported by MPG7 (paragraph 31) which advises MPAs not only to consider the restoration and after-use of an individual site before granting planning permission and drawing up conditions, but also how these relate to any strategic plan for the area. This is regarded as particularly important where there is a concentration of mineral workings, such as in North West Surrey or along the Greensand, or where the reclaimed landform will result in permanent change to the local landscape, e.g. where a new waterbody is created.

E. How will the Restoration Scheme make Contributions to Biodiversity?

5.55 Applicants should identify at the start of any restoration scheme whether the proposal will make any contributions to biodiversity. The MPA in Surrey considers that mineral site restoration and enhancement offer significant opportunities to achieve positive benefits for biodiversity. PPS9 states that all developments should demonstrate how they contribute to meeting such biodiversity targets, so all restorations no matter what their end use, have a role to play here. The following paragraphs explain the concept of biodiversity, the role of Biodiversity Action Plans (BAPS) and Habitat Action Plans (HAPS) and how

applicants can incorporate biodiversity action plan targets into their restoration scheme.

Biodiversity Action Plans

5.56 In the UK biodiversity is managed and implemented through (BAPs), which have been developed at the national level and local level. National Plans (footnote ref to website), then decanted down to local level. In 1999 a Biodiversity Action Plan for Surrey was launched. The aim of the Surrey Biodiversity Action Plan is to bring the targets from national action plans to the local level and translate these actions on the ground via HAPs and Species Action Plans (SAPs). This Plan identifies actions needed to conserve wildlife in the county.

5.57 In Surrey there are the following Habitat Action Plans

- Chalk Grassland (including Chalk Scrub)
- Floodplain Grazing Marsh
- Lowland Heathland (including Acid grassland and Bog)
- Farmland (including Arable, Improved Grassland and Boundary Features)
- Lowland Meadows (Unimproved Neutral Grassland including Hay Meadow)
- Standing Open Water and Reedbed
- Urban
- Wetland (Fen, Marsh, Swamp and Linear Reedbed)
- Woodland
- Wood Pasture and Parkland

Achieving Targets

5.58 The MPA is keen to encourage restoration and enhancement schemes which seek to conserve and restore local characteristics and try to meet targets and objectives of the UK Biodiversity Action Plan and the local Surrey Biodiversity Action Plan. Therefore applicants should try to meet these targets when designing their restoration and enhancement proposals.

5.59 A restoration scheme does not need to be primarily for a nature reserve end use in order to include biodiversity targets; agricultural, recreational and even some types of development associated restoration can also help to provide new habitats and other identified nature conservation targets. It may also be possible for some sites to contribute to targets during operations, by avoiding certain practices or by providing certain habitats at site margins or temporary habitats while land is awaiting working or restoration.

5.60 The potential to contribute to biodiversity targets identified in HAPs and SAPs will depend on a variety of factors such as:

- size of site (as many targets specify minimum sizes of habitat to be created) where there is insufficient space to develop a habitat or block of sufficient size to contribute to BAP targets, it may be possible to create smaller 'stepping stones, or linear habitat (e.g. hedges or strips along rivers) that species can use to move between larger 'core' habitat blocks. Such links, can form a habitat network.
- technical requirements (some sites will be more suitable for specific habitat creation than others e.g. wetland, heathland) and
- practical issues.

5.61 In seeking to achieve BAP or HAP targets the starting point is to find out about the biodiversity targets that apply to the area of search. In addition, in deciding whether to create a particular habitat or encourage a particular species as part of a restoration scheme, consideration should be given to the existing habitat and species in the wider area. Generally there will be benefits for biodiversity in creating a new block of habitat close to an area of the same habitat, as long as this can be done without harming the existing area. Ecological site surveys will help to identify existing habitats and species present on a site and in the locality.

5.62 Once local habitat or species targets or other biodiversity objectives have been identified for a site, these then need to be fed into the detailed design of the extraction scheme and restoration proposal. Applicants are advised to contact Natural England or Surrey Wildlife Trust about any biodiversity plans to identify what types of restoration and after-use are most likely to be beneficial for biodiversity.

Requirement for site BAPs

5.63 In addition to the biodiversity conservations, mineral extraction is uniquely place to contribute to and enrich our local geodiversity. This can be in the form of both geological exposures, or in geomorphological features. Locally, sites can be designated as RIGS (Regionally Important Geological Site), and Surrey, like many counties, has a local RIGS Group, whose expertise can be sought.

Landscape Scale

5.64 Mineral sites by their nature are usually large and with an emphasis on large landscape scale approaches, mineral extraction is in a unique position to contribute significantly to such large scale biodiversity initiatives. These are termed by the Wildlife Trusts as 'Living Landscapes' and the RSPB as 'Futurescapes'. In south east England this landscape scale approach has led to the indentification of Biodiversity Opportunities Areas (BOAs). Individual mineral sites should be considered in a wider context, and how they can contribute to such Biodiversity and green infrastructure aims. Additionally, mineral sites can contribute significantly green infrastructure initiatives at a more

local level and the South east has published a framework for this (see Appendix 2).

F. What do local people want from the site and how will the scheme incorporate their views?

5.65 Surrey is a densely populated county and this means that residents have a keen interest in mineral site proposals. Experience of mineral planning applications shows that they have often taken longer than the periods set for determination, in part because of issues raised by the public in representations on the application. The public and local people often submit questions and object to a proposal because they have not felt involved in the scheme and perceive it as a threat to their local environment.

5.66 A progressive applicant will try to establish a good working relationship with local people. It is therefore recommended that local people's views on the after-use and how they would like to see a site restored are sought right from the start so that they can be incorporated into the proposal. Engaging with the local community at the start of a project can often avoid delay during determination of the application. It can also mean that both the applicant and the local community can establish a good working relationship: the public informing the developer of any local site issues and what they would like from a restoration or enhancement scheme; and the applicant informing the public of what they intend to do, allaying fears and rumours about a proposal.

5.67 The following suggestions should be considered as methods of finding out the community's views and of establishing effective public relations.

- Establish at the outset a site liaison committee to meet regularly to discuss all aspects of the design and operation of the site. The committee should be made up of a high proportion of local residents in addition to the company's representatives. These are often chaired by local councillors in order to encourage a sense of ownership by local people.
- Appoint a community liaison officer (or charge an individual with responsibility for) who should be able to explain the complexities of site design and restoration to interested parties through the liaison committee and to individuals.
- The communities' awareness and understanding of mineral extraction and restoration can be increased via websites, newsletters, displays, leaflets or open days.

G. How will the restoration be financed and managed during operations and in the future?

5.68 The philosophy of mineral led restoration planning means that site restoration, after-use and long term management are all aspects of the mineral operation that need to be identified from the start of the whole process. This means that because such aspects are targeted from the beginning they are also expressly identified and incorporated into an operator's total budgetary package for the site.

5.69 MPG7 provides advice on "financial provision for reclamation". It states that the responsibility for restoration and aftercare of sites lies with the mineral operator or, in the case of default, with the landowner. It states that applicants should demonstrate with their applications what the likely financial and material budgets for restoration, aftercare and after-use will be, and how they propose to make provision for such work during the operational life of the site.

5.70 In Surrey applicants are expected to demonstrate in their planning application that they have made express provision to enable implementation and management of the restoration and long-term management of the site.

5.71 Appendix 5 identifies different sources of funding available to applicants in Surrey. Covering agricultural subsidies, sport and recreational funding, forestry, nature conservation and landscape grants, the Landfill Tax, the Sustainability Fund, Trust Funds and Local Authority Pump Priming.

5.72 In order to fully secure the long term restoration and after-use for a site it is imperative that consideration is given to the longer term management and sustaining the use of the site right at the beginning of the whole process. The long term management of all sites, but particularly restored to uses such as nature conservation, woodland and recreational uses should be built into the initial financing and funding equation of the whole extraction exercise and not seen as something that is an additional cost after the event. Appendix 4 looks at different mechanisms for site management and Section 3 examines the use of management plans in long term aftercare.

5.73 It may be appropriate to establish a site management fund through section 106 Agreements where a percentage of the mineral royalty is paid in to finance the longer term management of the site.

Information and Factors which Influence a Restoration Scheme

Introduction

5.74 There are a number of factors and issues that will influence the answers to the key questions ie. that will shape and influence the restoration and vision. These factors include; desk and site surveys, pre-application discussions, local people's views, planning policies, land use designations, local strategies and pollution control measures.

5.75 The following sections consider each of these factors in turn. Applicants are also advised to consult the county council's good practice guide on "Good Practice Guide For Applicants Seeking Planning Permission For Minerals and Waste related development" provided on Surrey County Council's website[18].

Desk and site survey information

5.76 In order to understand the site and its environment both the applicant and groups involved in discussions will need to base decisions on information concerning the site. It is therefore advised that applicants undertake site surveys early.

Desk Surveys

- A desk survey can establish a reasonable baseline of information about the site. Examples of the type of information that are usually available are:
- Site use and history
- Geology/hydrology
- Local meteorology
- Ecology
- Landscape characterisation
- Planning policy and designations
- Rights of Way
- Archaeology/Historical designations

5.77 National and local government agencies and authorities; non governmental organisations and local groups or experts often hold information suitable for desk top surveys. A desk survey should provide a sound outline of the site's characteristics and constraints, but it is unlikely to provide sufficient detail for a minerals proposal. In order to make informed decisions applicants are advised to also undertake detailed site investigations.

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18 http://www.surreycc.gov.uk/sccwebsite/sccwspages.nsf/LookupWebPagesByTITLE_RTF/Good+Practice+Guidance+for+Applicants+for+Planning+Permission+for+Minerals+and+Waste?opendocument

Site Surveys

5.78 Detailed site investigations will assist in drawing up a restoration led proposal, and will also form the baseline information for any application and environmental impact statement that may be required. The site survey should identify:

- Any existing site features that may be incorporated into the restoration scheme
- Soils - soil types and distribution on site. Information should be gathered on soil profiles up to 1.2m in depth. Also the agricultural classification.
- Site hydrology - existing surface drainage and outflow systems. Assessment of the impact of the proposal on groundwater and drainage in the area.
- Potential impacts of reclamation on adjacent land.
- Geology of the site, including thickness of overburden material useful for restoration, and likely pattern of excavation.
- Basic landscape character and visual assessment
- Ecology/wildlife habitats
- Any protected species or features
- Any contamination
- Rights of way or any patterns of leisure use established

NB. Some surveys can take at least a year to complete, as data may need to be collected throughout the year or for a particular season. This is particularly true for nature conservation surveys.

Preparation of an Outline Working Plan

5.79 It can be helpful in pre-application discussions if initial information such as the site survey material is clearly presented - MPG7 advocates use of an "outline working plan", to present this type of information to demonstrate that the site can be reclaimed to an acceptable standard and after-use. Surrey County Council as the Mineral Planning Authority supports the preparation of working plans by applicants. Any working plan prepared should be in sufficient detail for the MPA and any statutory consultees to form a judgement as to the feasibility of the scheme and the restoration proposals. A possible format for a plan as suggested in MPG7 is provided below:

Format of Outline Working Plan

- Information from the site investigation / survey (see above for detail)
- Identification of key landscape opportunities and constraints
- Identification of other key opportunities or constraints i.e. adjoining land uses, proximity of dwellings
- An outline of the preferred final after-uses and preferred character for the restored landscape and any nature conservation interest

- Identification of potential directions of working
- Identification of the need for additional screening during operations
- Information on stripping of soils and soil making materials and either their storage or their direct replacement (i.e. restoration) on another part of the site
- Information on storage and replacement of overburden
- Information on achieving the landscape and landform objectives of the site, including filling operations if required, following mineral extraction
- Information on restoration including soil replacement, relief of compaction and provision of surface features
- Information on aftercare

Planning Policy

5.80 There are a number of land use planning policy issues that may influence how restoration takes place on a site and the after-use. These include:

National Policy and Minerals Planning Policy

5.81 National government policies and Minerals Policy Statements and Planning Guidance will also need to be taken into consideration when the MPA is determining a proposal. Applicants are advised to refer to the latest government policy statements and guidance and national policy when drafting a restoration or enhancement proposal Appendix 9 lists some of the key references.

Development Plan

5.82 Any minerals proposal in Surrey will be determined in accordance with the policies set out in the Development Plan.

5.83 In Surrey the Development Plan regarding the working and restoration of mineral sites comprises the Regional Spatial Strategy, the Surrey Minerals and Waste Development Framework and the relevant District Development Framework.

5.84 The Development Plan contains specific policies with criteria that are used to assess the appropriateness of a particular after-use and restoration scheme and also contains other environmental, conservation, highways and amenity policies that may affect the suitability of the overall restoration. Applicants are advised to consult the full set of Development Plans and their policies before deciding on an after-use and submitting an application.

Statutory environmental designations

5.85 Statutory designations (national or international) either covering or adjoining the site can influence the suitability of different after-uses and the restoration scheme in general. Applicants are advised to check the relevant -development plan and find out at pre-application discussions whether there are any statutory environmental designations that may influence the restoration of the site. Statutory environmental designations can affect whether the site is suitable to be worked and if it is, it can affect restoration in terms of the final landform, suitability to fill, type of after-use and planting.

Such statutory environmental designations may include:

Landscape Designations (AONB)

5.86 In Surrey the Surrey Hills Area of Outstanding Natural Beauty (AONB) and High Weald AONB are nationally important landscapes. The AONB designation may influence the suitability of different after-uses particularly those connected with recreation. Applicants are advised to consult the Surrey Hills and High Weald AONB Management Plans and hold pre-application discussions with the AONB Officer (see Appendix 3 for contact) for the area to find out whether there are any particular types of land use that are being targeted in these areas and whether there is any funding for schemes.

5.87 It should be noted that Areas of Outstanding Natural Beauty are national designations and that applications for new mineral workings, or extensions to existing works, in AONBs must be subject to the most rigorous examination.

Green Belt

5.88 Nearly all mineral workings in Surrey are located in the Green Belt or on land designated as Countryside Beyond the Green Belt. These land use designations limit to a large extent the acceptable after-uses appropriate for mineral workings in Surrey to; agriculture, forestry, woodland, nature conservation or informal recreation.

5.89 The MPA will assess the appropriateness of any mineral extraction application within the Green Belt as to how far the after use and restoration package meets the land use objectives of the Green Belt designation. It will also need to be satisfied that the proposal is not inappropriate development in the Green Belt, by assessing whether the proposal mitigates against any potential environmental impacts and whether the proposed restoration and after-use are to high environmental standards.

Nature conservation designations (SAC, SPA, SSSI, Ramsar)

5.90 In Surrey there are a number of important designated sites for nature conservation. National Nature Reserves (NNRs) Ramsar Sites, Special Protection Areas (SPAs), Special Conservation Areas (SACs) and Sites of Special Scientific Interest (SSSIs) are all protected under national legislation. The existence of a designated nature conservation site at or near to a prospective mineral site is a significant material consideration and any proposal will be subject to particular scrutiny. Natural England should be consulted at the earliest opportunity if a scheme is covered by or is situated in close proximity to or has the potential to indirectly affect one of these designations. If it is thought that extraction may be possible in such an area, the restoration and after-use will be greatly influenced by the existence of the designation. Designated geological SSSIs in Surrey predominately lie within the Weald Clay and chalk areas and are principally designated for their fossiliferous interest. Operators in Surrey will be expected to protect, manage and sustain Geological SSSIs as part of a scheme.

Ancient and Semi-Natural Woodlands

5.91 Nearly a quarter of Surrey's woodland is ancient semi-natural. These woodlands are valuable because of continuous woodland cover over a long period of time. Proposals within or in close proximity to these areas will be subject to particular scrutiny. Applicants are advised to speak to the county council's Ecologist and Natural England about any restoration or enhancement schemes within or close to these woodlands.

Historic Gardens

5.92 Surrey has a rich array of historic parks and gardens. English Heritage holds a resister of all Historic Parks and Gardens and applicants are advised to consult them to find out if a site occupies part of, or is in close proximity to such a landscape feature. Applicants should have regard to such features in any extraction and restoration scheme. Where possible specific historic park and garden features should be protected and retained, or where lost either prior to or as part of mineral extraction, new replica features should be provided for as part of the restoration and enhancement of the site.

Scheduled Monuments

5.93 Scheduled Monuments are nationally important sites for archaeology. There are strict controls managing development in close proximity to these designations, indeed a separate consent is required for any works from English Heritage. Applicants are advised to consult English Heritage to find out how the designation will influence any restoration proposals.

Birdstrike

5.94 2003 safeguarding regulations, require the MPA to consult operators of airports and aerodromes on any proposals within the published safeguarding zones around these airfields. In mineral planning and restoration terms this is principally in relation to mineral sites and their restoration. The issue is principally the creation of features or operations that may increase the risk of birdstrike, that is of an aircraft and bird(s) colliding. Applicants are advised to consult with airfield operators in formulating their proposals. Surrey takes the issue of birdstrike extremely seriously, and considers that if based on sound science and properly risked assessed, it is possible to have both safe skies and quality habitats around airfields. The working approach between the county council and BAA is cited as a best practice example in the Nature After Minerals initiative.

5.95 The use of Bird Management Plans is an effective mechanism to address this issue and will often be required as standard for sites located within the safeguarding zones. Where management plans are also required for other purposes it is recommended that Bird Management Plans are integrated with these as a single document to ensure a compatible and more effective management approach.

Other Statutory Development Plan Designations and Allocations

5.96 Applicants are also advised to consult the Development Plan to see if there are any other planning designations covering the site or land use allocations. For example, the site may be allocated for future recreational use or there may be other local environmental protection designations covering the site such as AGLV (Areas of Great Landscape Value), SNCIs (Sites of Nature Conservation Importance) or RIGs (Regionally Important Geomorphological Sites). These development plan designations will also influence the after-use, the way a site is restored and mitigation methods.

Local strategies

5.97 In Surrey a number of local strategies have been developed to co-ordinate management of particular issues or areas. These strategies are not statutory, but are material considerations to the appropriateness of a particular restoration scheme. Applicants are advised to consult these strategies when drawing up their restoration plans:

- The Surrey Community Strategy
- The Local Area Agreement
- The Surrey Countryside Strategy
- The Surrey Heritage Strategy
- The Surrey Hills Area of Outstanding Natural Beauty Management Plan

- The High Weald Area of Outstanding Natural Beauty Management Plan
- The Surrey Economic Strategy
- The Future of Surrey's Landscape and Woodlands
- The Surrey Biodiversity Action Plan.
- Local Recreational Strategies produced by Countryside Management Projects or District Councils
- Local District Council Economic, Countryside and Leisure Strategies
- Surrey and Local Agenda 21 Plans
- Community Strategies.

Pre-application discussions

5.98 Government policy statements and guidance (MPS1 and MPG7) encourages consultation at the pre-application stage. In Surrey pre-application discussions are identified as key to successful restoration schemes and are therefore regarded as best practice. Early liaison and exchange of information between all parties involved in progressing and assessing a proposal can avoid confusion, delays and can instead lead to well thought through restoration and after-use schemes.

5.99 In order to set clear and achievable objectives at the start of the project applicants are advised to involve the following groups of people in pre-application discussions:

- The Mineral Planning Authority
- The Local Borough or District Planning Authority,
- Statutory Consultees,
- Local Groups

5.100 The following sections set out the specific roles of these different groups and bodies and suggests the information that you should try to provide them with and the information you should try to gather from them. Much of this has already been undertaken in formulating the site specific restoration schemes of this SPD, but applicants should follow and develop this in formulating the detailed schemes.

Involvement of the Mineral Planning Authority

5.101 Under the 1990 Planning Act, the Mineral Planning Authority (the County Planning Authority) is responsible for determining applications for mineral site restoration.

5.102 Before drawing up any detailed plans or starting any expensive survey work, applicants should hold initial discussions with the MPA. Surrey County Council's: "Good Practice Guide For Applicants Seeking Planning Permission For Minerals and Waste related development", sets out the county's approach to pre-application discussions. Prior to the pre-application meeting applicants should send in outline information about their proposal and the site to enable officers to prepare for the

meeting. From this initial meeting applicants should seek a view from the MPA as to whether the proposal is acceptable in principle. The MPA officers will be looking to see whether the site is identified as a preferred area in the Minerals Plan. If the proposal is acceptable in principle, applicants should then seek to identify for the proposal site:

- What further pre-application discussions are required
- Who else to have pre - application discussions with
- What will be the key planning and environmental issues for the site
- Any areas where further survey work is required

5.103 Further pre-application discussions with the MPA should move on to cover the following issues:

- Information which needs to be provided by the applicant when submitting the planning application.
- Method of working the site.
- Restoration objectives
- Need for Environmental Impact Assessment - screening and scoping opinions linked to environmental assessments
- Preparation of an Environmental Statement
- Advance planting
- Acceptability of After Use
- Restoration and Aftercare
- Conditions and Management Agreement

5.104 Involvement of the MPA Restoration and Enhancement Officer in pre-application discussions or community liaison can be beneficial. The officer understands issues faced by the applicant, operator and community and has a comprehensive understanding of minerals restoration in Surrey; in particular, local environmental issues, local problems encountered in previous restoration schemes and useful contacts when trying to work up a specific scheme in Surrey.

Involvement of the District or Borough Planning Authority

5.105 It is the District or Borough Planning Authority that is responsible for the approval of subsequent after-uses once the site has been restored. Therefore in a restoration led approach to mineral planning it is essential that they are also involved in discussions and can inform the applicant at an early stage whether there will be any problems in granting planning permission for the proposed after use and any associated development.

5.106 Poor restoration and after use schemes can result from poor co-ordination of communications between the MPA, the District and the applicant. For example in the past it has been known for the MPA to have broadly approved a water feature that it considered appropriate for waterborne recreation, such as sailing or windsurfing, but the DPA

subsequently approves a motorised watersports usage that triggers erosion issues from boat wakes.

Involvement of Statutory and Non-Statutory Consultees

5.107 The value of consultations will be maximised if they happen as early as possible and do not wait for a planning application to be submitted. Pre-application discussions with the statutory and non-statutory consultees can inform an applicant of any technical, policy or conservation issues which they need to consider as part of an overall scheme. In addition the statutory consultees can advise the applicant on the suitability of potential after-uses and whether they would be appropriate to the site and local area. These consultations are likely to include:

Statutory Consultees

- Natural England
- DEFRA
- Environment Agency
- Health and Safety Executive
- Forestry Commission
- Sport England
- SCC Highways Authority (Highway Safety, Traffic Impacts and Rights of Way)

Non-Statutory Consultees

- Surrey County Council Environmental Specialists, Ecology, Woodlands, Archaeology, Heritage, Landscape, Noise and Environmental Impact Assessment)
- Surrey Wildlife Trust
- Local experts

A full list of contacts and their addresses is provided in Appendix 3.

Involvement of the Community

5.108 Public and more specifically community involvement is vital to the success of any restoration and enhancement scheme in Surrey. Public involvement can help enrich and inform a restoration design, and achieve a greater level of acceptability, understanding and awareness of the proposal and its operations. Localism legislation will increase the importance of this.

5.109 Working with the community at an early stage in the project should help to reveal local knowledge about specific issues regarding the site, e.g. rare species. It should also identify the community's views on the long term end use and restoration of the site - these can then be integrated into the overall scheme.

5.110 It is recognised that for business reasons a company may wish to keep plans quiet. However, Surrey County Council as MPA strongly advise

companies and the applicant to go out and speak to residents and interest groups before a planning application is submitted and before plans are too firmly fixed.

5.111 There are various different methods for engaging the community in discussion regarding a particular site, e.g. workshops, planning for real type exercises, staffed exhibition/open days in a local venue and focus groups are probably the best methods.

5.112 Whilst these discussions with the community may increase the time that needs to be allocated to preparing a planning application and may also provide some unwelcome attention prior to its submission, overall they should provide the following benefits to the applicant:

- You may be given ideas and suggestions for the type of restoration the public would like to see.
- You know what concerns are and how they are going to react to the scheme and may be able to incorporate mitigation measures to counteract them
- You know what is being looked for from a restoration scheme
- You get to know the residents and local interest groups and over time establish a working relationship with them
- You may avoid local residents and interest groups seeking judicial review
- The determination of your application may not be held up with delay over new issues raised by the public.

6 GOOD PRACTICE FOR MINERAL SITES RESTORATION AND ENHANCEMENT. PART 2 - THE PLANNING APPLICATION

Contents

Introduction

6.1 This section outlines the type and level of detail that should be included in any restoration led planning application. It also outlines whom the local authority will usually consult and the type of condition that may be attached to any permission granted.

Submitting a Planning Application

Details of Restoration and Aftercare Proposals to be included in an Application

6.2 A good practice note has been prepared titled "Good Practice Guide for Applicants Seeking Planning Permission for Minerals and Waste related development" (November 2006). Applicants are advised to consult this SPD which gives advice on how to submit a planning application to the MPA and on the type of information that should be included in any supporting statement.

6.3 The box below highlights the main points on restoration and aftercare that will need to be included with the application. MPG2, MPS1 and MPS2 also provide general advice on this matter and MPG7 Annex A Box 2 provides applicants with a list of information that might be provided to support a planning application.

NB. The MPA will expect applicants to be specific about the proposed after-use of the site in the planning application.

RESTORATION AND AFTERCARE ISSUES TO BE INCLUDED IN A PLANNING APPLICATION

- Details of intended after-use(s) and justification
- Method of restoration and phasing
- Details on soil stripping and storage
- Materials to be used for restoration; where it is proposed to import materials the source, nature and quantity; and where it is proposed to deposit non-inert wastes full details of the adequacy of the site to accept the materials safely must be submitted together with proposals to control gas and leachate
- Method of infilling
- Contours of the restored site, before and after settlement (if appropriate). These should include off site contours to show how the site blends with the surrounding land. NB. On wet restoration schemes below water surface contours should be included
- The source and quantities of topsoil to be imported, if adequate topsoil and subsoil are not available on site
- Methods of replacement of subsoil, topsoil and thickness of new soils, including how soils are to transported to and from storage areas or other phases and procedures and equipment to be used to place soils. A description of procedures to check the quality of any soil materials to be imported and operations (e.g. stone picking) to improve their quality. Where imported soils will be stored before being restored. Under what soil/weather conditions soils will be handled.
- Detailed proposals for landscaping the site after restoration, including details for planting and field boundary replacement.
- Extent of water areas to be retained including water levels, contours of embankments and beaches.
- Extent of geological and Geomorphological areas to retained and contours.
- Detailed proposals for habitat creation.
- Cultivation techniques, including ripping, harrowing, stone picking, fertilisation and preparation.
- Provision of under drainage and water supply.
- Stocking of lakes and ponds with fish.
- Proposals for the removal of buildings, plant, equipment, roads and hardstanding etc.
- Proposals for the aftercare of sites restored to agriculture, forestry, nature conservation or amenity use, normally for a period of not less than five years (see appendix 6 for examples).
- Proposed final routes of Rights of Way.
- Enhancements to be established during operations.
- Measures for long-term management
- Details of contributing to UK biodiversity
- Measures of mitigating birdstrike risk

Level of Detail to be included in a Planning Application.

6.4 In the past it was often the case, when workings were expected to last for a number of decades, to agree the principles of restoration as part of the planning application and require details to be submitted at a later stage. However, the requirements of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 – Regulation 3 now require the relevant planning authority to take into consideration the environmental information relating to an EIA development. The planning authority is prohibited from issuing a decision notice until they have done so.

6.5 This means that the local planning authority needs not only to assess in detail the environmental impacts relating to the mineral extraction, but also the environmental effects of any mitigation measures including site restoration and aftercare proposals. The effect of this is that applicants are now required to be more specific at the beginning of the planning process about the restoration and aftercare schemes, so that the MPA and statutory consultees can fully assess their environmental effects ie. detail about restoration needs to be provided in the application and cannot be left to later.

Where should restoration and aftercare information be provided?

6.6 Information on the after-use, restoration and aftercare of the site will be provided in various places throughout the application documentation, i.e. some will be provided on the application forms and some in the supporting statement. Also this information will need to be provided in the environmental statement - as the majority of minerals applications in Surrey will require an environmental impact assessment. In a big document such as an environmental statement this information can get split between different sections of the statement and be difficult to follow. It would be helpful if the aftercare and restoration information is clearly presented and if necessary repeated in its own section of the environmental statement or repeated as a standalone document. MPG7 Annex A paragraph A4 advises that a formal restoration (reclamation) scheme should accompany the planning application for the mineral working.

6.7 In Surrey applicants are expected to include full details of restoration and aftercare schemes with the application documentation, unless otherwise agreed at the pre-application stage with the MPA. If the operator finds a problem with the approved restoration scheme once restoration is underway, they must contact the MPA to discuss matters. No works should be carried out that would not be in accordance with the permitted scheme.

A statement of the applicant's previous work

6.8 MPG7 outlines how an applicant may wish to call attention to any evidence as to how their proposed methods of site management, restoration and aftercare are likely to work out in practice. It suggests that an applicant may want to do this by providing evidence about the way a similar site has been managed or restored. In Surrey, this advice is regarded as a prerequisite and applicants are expected to demonstrate that they are capable of carrying out the restoration proposed. The Surrey Minerals Plan Core Strategy expects applicants to show that they have the technical and financial competence to restore land in accordance with any proposed restoration scheme. Officers may visit examples of the company's work undertaken elsewhere to check this.

6.9 In addition applicants will also be able to demonstrate to the MPA and to the Environment Agency their capability and competence of delivering a successful restoration scheme through the environmental impact assessment and Environmental Permit processes, if required for a particular site and proposal.

Determining the Application

6.10 Section 54A of the 1990 Town and Country Planning Act makes it clear that planning permission for any planning application should be determined in accordance with the development plan unless material considerations indicate otherwise. The MPA will have regard to all material considerations when determining mineral and restoration proposals including national policy considerations outlined in PPSs, MPSs and MPGs. Applicants should consider at the outset whether the development and proposed after-use would be in accordance with the development plan, and if not whether there are any material considerations which might justify the development proceeding. The MPA will consider in detail the full range of social, community, economic and environmental issues that are relevant to the planning decision. The applicant should demonstrate that any potential adverse effects have been considered when preparing the planning application and propose appropriate mitigation measures.

Consultation on Planning Applications

6.11 The MPA must consult a number of statutory bodies when assessing the application for mineral extraction and restoration. Applicants should discuss with the MPA at pre-application discussions who the authority will be consulting on the proposal. The paragraphs below set out the circumstances when particular bodies must be consulted.

6.12 The MPA is required to consult Natural England or the Forestry Commission (FC), respectively, if it is intended that the land will be used

for agricultural or forestry after-use. Schedule 5 of the 1990 Town and Country Planning Act requires the MPA to consult with Defra or the FC for their views and advice on: the appropriateness of the proposed after-use; whether aftercare steps should be set out in conditions or a scheme; and the steps which should be specified in an aftercare condition or before approving an aftercare scheme. In addition although the statutory requirement is for consultation on aftercare schemes, the MPA also consult the appropriate bodies on restoration proposals as the standards of restoration are critical to the achievement of satisfactory aftercare.

6.13 The MPA will normally consult the following bodies if a nature conservation after-use is proposed; Natural England, Surrey Wildlife Trust, RSPB and specialist nature conservation experts. Sport England and the relevant District Council Leisure Department will be consulted if a recreational after-use is proposed.

6.14 If a mineral extraction and restoration proposal site is within or in close proximity to, or may affect Sites of Special Scientific Interest (SSSIs) or other international or national nature conservation designations the MPA has a statutory duty to consult Natural England. Similarly, if the proposal site is within or adjacent to the Surrey Hills or High Weald Areas of Outstanding Natural Beauty (AONBs) the MPA will consult the relevant AONB Officer and the Natural England. Defra acts as a statutory consultee for all mineral extraction and restoration proposals that affect the "best and most versatile" agricultural land (Grade 3a land and above). English Heritage must be consulted for all proposals affecting Scheduled Monuments. The Environment Agency will be consulted on all mineral extraction and restoration proposals, regardless of where they are located.

Planning Conditions

6.15 Planning conditions are usually attached to a scheme that is granted planning permission to agree specific detail about a particular part of the proposal or to ensure that certain effects that the proposal might have on the environment and amenity of local people are mitigated.

6.16 Generally the MPA refers to the Planning Officers' Society Good Practice Guides on Conditions ie. Good Practice Guide for Mineral and Waste Planning Conditions[19] and adapts the draft conditions provided to meet the specific requirements of each individual proposal.

6.17 A list of the key areas where the MPA usually attaches conditions to mineral extraction and restoration schemes is provided in Appendix 7.

[19]www.planningofficers.org.uk/.../4_Model_Conditions_Overview_for_Mineral_Conditions_July_2003.pdf

7 GOOD PRACTICE FOR MINERAL SITES RESTORATION AND ENHANCEMENT. PART 3 – POST PLANNING PERMISSION

Contents

Introduction

7.1 This section sets out how the MPA approaches restoration and aftercare. As discussed in the previous sections, although detailed information on restoration and aftercare is provided as part of the planning application, it is usually preferred to approve further details relating to specific matters such as soil restoration, hydrology, timing of plantings and aftercare once working is underway. This is because site conditions may be different than indicated by pre-application survey work e.g. soil quality may not be as high as expected. It is common practice to secure the submission of these further details to the MPA for approval by conditions attached to the main permission. The trend now is that the MPA require all this in the planning application, but the MPA are not averse to having it amended to meeting changing circumstances once site working is underway.

7.2 This section looks at:

- the content of soil restoration and aftercare schemes
- the monitoring and review arrangements for aftercare schemes
- planting aftercare
- the use of management plans in Surrey in relation to long term aftercare schemes, such as those required for nature conservation.

Soil Restoration and Aftercare

7.3 The current statutory provisions and requirements for aftercare of mineral workings are set out in Schedule 5 of the Town and Country Planning Act 1990, as amended by the Planning and Compensation Act 1991 and the Environment Act 1995. These provisions set out the content of aftercare conditions, how they may be imposed and the suggested framework for assessing the progress of aftercare when it is being implemented.

7.4 The most comprehensive current Government guidance on restoration and aftercare is set out in MPG7 " The Reclamation of Mineral Workings" 1996, but the effectiveness of mineral site aftercare provisions was reviewed[20] in 2000.

Soil Restoration

7.5 Soil restoration refers to the replacement following mineral extraction of any or all of the following; subsoil, topsoil and soil making material. The nature of mineral extraction in Surrey means that the majority of soil restoration can follow closely behind extraction so that the land can be returned to its original use or new after-use relatively quickly (anything from a number of months). Surrey advocates the loose tip method of soil reinstatement -see diagram 2 above taken from Amenity Reclamation of Mineral Workings - Department of Environment; 1992.

7.6 Careful stripping, storage and handling of soils are fundamental to securing a successful restoration scheme. MPG7 Annex A provides detailed guidance on soil handling, storage and replacement techniques as part of site restoration. A list of technical guides covering soil handling techniques is contained in Appendix 2. Different after-uses have particular requirements regarding soil depth and quality. For example if it is intended that a site will be restored for a sports pitch it will be important to ensure that the depth of the soil can support a nutrient demanding hard wearing sward and is sufficient to prevent stones working to the surface. Conversely for nature conservation end uses it is not always appropriate to replace soils across the entire site, this is because some forms of nature conservation require nutrient poor substrates.

Soil Restoration Conditions

7.7 The aim of soil restoration conditions is to secure the replacement of soil materials on landforms and levels which accord with the planning requirements, in ways to ensure that land is brought back to the standard required for the proposed after-use(s). Soil restoration conditions are also needed to cover remedial treatment of soil so as to

[20] Effectiveness of aftercare provisions for mineral workings December 2000 ISBN 1 85 112448 9

facilitate the use of cultivation, harvesting and drainage equipment for the aftercare period and the longer-term management of the land.

7.8 The date for the completion of restoration following the cessation of extraction of minerals is usually given between 1-5 years. Restoration conditions can also be attached requiring the placement of soils in the appropriate order, and to appropriate depths. They can also require mechanical subsoiling of the restored soil layers to relieve compaction and to remove stones.

Aftercare

Duration and Completion of Aftercare Scheme

7.9 The objective of aftercare is to bring restored land to a condition such that it does not need to be treated any differently from undisturbed land in the same use.

7.10 MPG7 specifically states that "aftercare begins from compliance with the restoration conditions", which include the spreading of soils and maintenance and management of any planting. MPG7 includes cultivations, stone picking, installation of under drainage and secondary treatment such as subsoiling and moling in aftercare.

7.11 Usually the MPA will seek to impose aftercare conditions for a period of up to five years on all restoration schemes in accordance with the statutory maximum period for aftercare. However, in certain circumstances, a five year aftercare period may be insufficient to secure aftercare objectives. In these circumstances the MPA will usually seek a planning obligation to extend the aftercare period.

7.12 For agricultural restoration and formal after-use such as sports and recreation pitches, the statutory 5 year aftercare period is usually sufficient for aftercare schemes. Thereafter the pattern of regular management of the afteruse should successfully sustain the site thereafter. However nature conservation, forestry/woodland sites tend to require longer periods of aftercare to allow for example, habitats to establish fully, sometimes up to and between 20 - 25 years. As stated above these longer periods are usually secured through S106 agreements, although they can be agreed by a voluntary arrangement between mineral operators, MPA, landowners and future managers of the site (see below).

7.13 When the aftercare period is complete the MPA will send a signed letter to record that the site has completed its aftercare period. An example letter is provided in Appendix 6.

Aftercare Conditions

7.14 Schedule 5 of the Town and Country Planning Act 1990 provides powers to enable the MPA to impose 'aftercare conditions' on the grant of planning permission in relation to land which is to be used for agriculture, forestry or amenity following mineral working. However, an aftercare condition may only be imposed if the planning permission is also subject to a restoration condition.

7.15 The steps that can be specified within an aftercare condition/scheme can "consist of planting, cultivating, fertilising, watering, draining or otherwise treating of land" (Town and Country Planning Act, 1990). Aftercare steps can be set out in a detailed planning condition or by a condition requiring submission and implementation of a detailed aftercare scheme.

7.16 In Surrey the MPA tends to favour the use of approved aftercare schemes rather than setting out detailed conditions.

Standard Aftercare Condition

7.17 Set out below is an example of an aftercare condition that has been used by the MPA in recent years.

> No later than x/x/x, an aftercare scheme requiring such steps as may be necessary to bring the land to the required standard for the use of agriculture shall be submitted to the County Planning Authority for approval in writing. The scheme shall:
>
> a) provide an outline strategy in accordance with Annex A of MPG7 for the five-year aftercare period. This shall specify steps to be taken and the period during which they are to be taken. The strategy shall include provision of field drainage system and provide for an annual meeting throughout the five-year aftercare period between the landowner or successor in title, and the County Planning Authority.
> b) provide for a detailed annual programme in accordance with Annexe A of MPG7 to be submitted to the County Planning Authority no later than two months prior to the annual aftercare meeting.
>
> Aftercare shall take place in accordance with the approved scheme or any subsequent variation agreed in writing by the County Planning Authority.

Drafting the Aftercare Scheme

7.18 The MPA believe that a successful aftercare scheme should provide the following information (in accordance with advice contained in MPG7):

- An outline strategy of commitments for the five year aftercare period

- A detailed programme for the forthcoming year.

7.19 The outline strategy should detail the aims, objectives and direction for future management of the area. It should provide the commitments for the aftercare period, which will broadly outline the steps to be carried out and their timings within the programme. The detailed programme for the year ahead should specify the type of work required, its purpose, timing and frequency.

7.20 Box 5 of Annex A of MPG7 provides the steps to be covered in an outline strategy for aftercare and Box 6 the information that should be included in a detailed annual strategy. Appendix 6 provides examples of the issues and type of programme that should be included in an aftercare scheme for agriculture and forestry.

7.21 As stated in Section 2 details of the aftercare scheme should be submitted as part of the planning application. The scheme submitted should contain sufficient detail to enable the MPA to understand the intentions of the applicant. It should provide an outline programme of aftercare for the 5 year period and set out provisions for annual meetings and review. A condition attached to the main planning permission will set out compliance with this or the need for more details to be submitted.

7.22 Timing of submission of the aftercare schemes can vary. Usually the MPA will request submission of the detailed aftercare scheme between 6-12 months before the commencement of restoration. The detailed annual schemes for aftercare are usually required to be submitted at a fixed date around one year before their implementation. This date may be one month prior to the agreed aftercare meeting.

7.23 It is usually the operator who is responsible for devising the detailed aftercare scheme (with or without assistance from consultants). This should be done in consultation with whoever will be managing the land during the aftercare period and those who have a long-term interest (e.g. owners, long term tenant and in-house farm manager). The MPA can also offer advice on the aftercare scheme. Operators are also advised to discuss the aftercare scheme with statutory consultees (DEFRA, the Forestry Commission, and Natural England) and non-statutory consultees such as Surrey Wildlife Trust. The MPA will consult these bodies when considering the detail of a submitted scheme.

Complying with Conditions/Carrying out the Aftercare Scheme

7.24 The best aftercare management usually results from those bodies or individuals who have long-term interest in or responsibility for the land. A common practice is for the larger mineral companies to employ specialised restoration staff who have particular responsibilities for site reclamation across the company's portfolio. Alternatively, site managers are employed to oversee the restoration and aftercare periods.

Monitoring and Enforcement of Aftercare

7.25 It is standard practice in Surrey for annual aftercare meetings to be held, when the final after-use is for agriculture or forestry. These meetings provide the opportunity to review aftercare operations during the previous year, consider the site conditions at that particular time and when agricultural after-use is proposed to discuss the cropping/planting or any other operations which are appropriate for the coming year.

7.26 These meetings are usually attended by the operator and the MPA. For agriculture after-use DEFRA/Natural England will attend the annual after-care meeting (Although not for some small scale schemes) and for forestry the Forestry Commission will attend. It is also advised that the landowner/contractor/farmer who undertakes the actual aftercare operations is present at the annual meeting, so that any conflicts over the land management regime and aftercare scheme can be resolved. Prior to this meeting the operators should produce a draft aftercare plan of operations for the next year. Such meetings form part of the MPA's chargeable compliance/enforcement regime.

7.27 The MPA will normally keep a record of the meeting and detail any recommendations for remedial works. For agricultural after-use often Natural England will prepare a formal record of the meeting which is then passed to the MPA. In turn the MPA will write to the operator conveying the views of Natural England and with written approval of the proposals for the forthcoming year. These notes will then be referred to during the site inspections the following year to check that remedial operations have been carried out and to indicate how successful they have been.

7.28 For agriculture after-use schemes it is recommended that these meetings are held late spring (March/April) as this is the preferred time of year to look at sites in aftercare. For Forestry restorations, late summer, when trees are in leaf is the preferred time.

7.29 For nature conservation and recreational after-uses, the MPA usually closely monitors the success of aftercare throughout the year and will call a meeting if a particular problem is observed. If the restoration and aftercare management of the site is set out in a management plan, the management plan should usually include details of annual review meetings.

Aftercare Record Keeping

7.30 It is important that the operator keeps records on the aftercare scheme, so that the success of the scheme can be monitored and problems identified and in order to maintain continuity when there are staff changes within the operator team or within the MPA. For agriculture, records should be kept of fertiliser applications, seeding, sprays,

cultivation, drainage, etc. For forestry, records should include herbicide applications or failed/damaged plantings. For nature conservation and amenity uses, records should include notes on habitat creation, natural colonisations, the introduction of new species to a site, or migration of species off site.

Management Plans and Aftercare

7.31 Sites restored to after-uses such as nature conservation and informal recreation generally require long-term management beyond the standard 5 years aftercare

7.32 It is current practice for the MPA to require a management plan to be prepared where the after-use of the site will take a significant period of time to establish. This provides the MPA with assurances over the long-term management of the site. Appendix 6 provides an example format of a management plan. Where sites are to be restored for nature conservation the management plan should also be drafted to include a site specific BAP.

7.33 Management plans are usually subject to Legal Agreement, under Section 106 of the Town and Country Planning Act 1990. These Legal Agreements are required to be entered into once planning permission has been granted by the MPA and prior to the issuing of the decision notice. They can result in long delays in the issuing of a decision notice following a Committee resolution. Therefore the MPA will bring to the attention of the applicant as early as possible the need or potential need for a Legal Agreement as part of any long-term restoration management.

7.34 Legal agreements connected with management plans usually require the applicant to submit to the MPA a management plan showing how the site will be managed and maintained over the longer term. (Note - if a time period is required normally 20/25 years is specified, with plans covering and updated in tranches of 5 years). The legal agreement will also usually specify the content and timescale for preparation of the management plan.

7.35 Legal agreements can be prepared by the applicant or by the Mineral Planning Authority. Larger companies are often able to produce their own draft agreements, for smaller operators it may be more effective to use the MPA's solicitors.

7.36 As stated previously, Legal Agreements can take time to draft and thereby cause delay in the issuing of planning consent. In order to avoid delay it is advised that outline heads of agreement for the management plan are discussed with the MPA whilst the application is being considered. Draft agreements can be prepared so that they are almost complete when the decision on the application is taken. NB. any discussion surrounding the Legal Agreement does not pre-empt the

MPA's decision regarding the planning application. Any draft heads of agreement will be reported to the Committee when the proposal is being considered. An example of draft Heads of Agreement is provided in the box below**.**

Draft heads of agreement

7.37 This paper sets out the broad heads of agreement, dependent on the grant of planning permission to be included in a legal agreement between party A (the applicant) and party B (the MPA) in relation to the long term management, maintenance and aftercare of land within application site XX09/1234 (land edged red on plan ref. A).

Outline of basic agreement

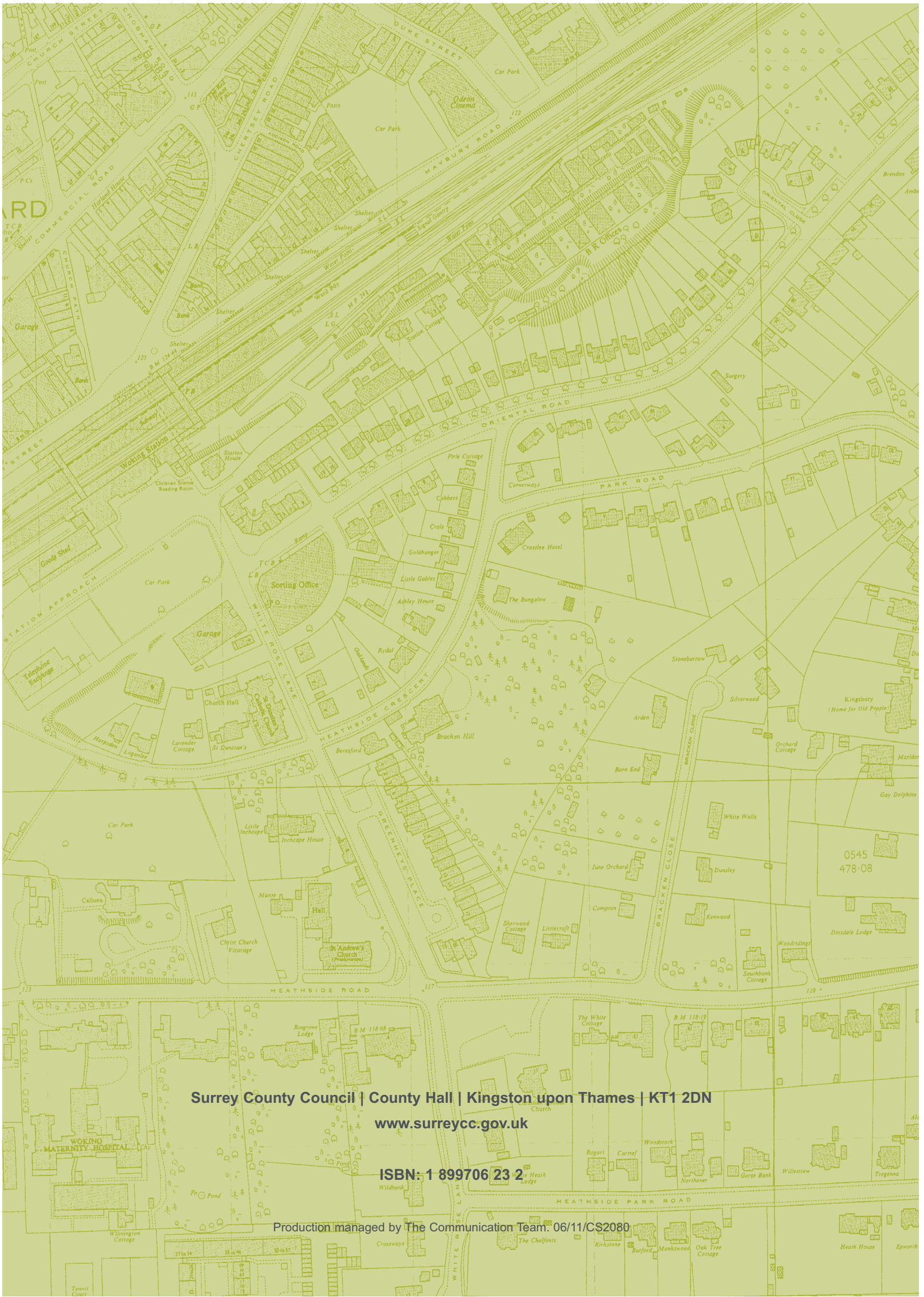
7.38 Within X months of issue of the planning decision notice for XX09/1234 party A shall submit to the MPA for approval a long term management plan for all land within the application site (land edged red on plan ref. A), showing how the site is to be managed from the duration of working and restoration, including a 5 year aftercare scheme and 20 years thereafter. Such a plan shall be subject to a 5 year review taking into account of the progress made in working the site. Party A shall implement the approved management plan in full once approved unless the MPA agrees to variation.

7.39 This should cover:

a. The management of habitats to be created pursuant to the Application.
b. The resources, including personnel and financial means, in place to implement the Management Plan.
c. Details of the arrangements to monitor the effectiveness of the measures and tasks undertaken pursuant to.
d. A site specific Biodiversity Action Plan.
e. The control of birds on the land in the form of a Bird Management Plan. (if required within airport safeguard zone).
f. A review and update process (most management plans are reviewed and updated every 5 years).

8 MONITORING AND REVIEW

8.1 The need to review this document will be determined annually, as part of the production of the *Annual Monitoring Report*. It is likely that this document will need to be reviewed more regularly than other minerals plan documents in order to ensure that it can reflect changing circusmstances as best practice.



Surrey County Council | County Hall | Kingston upon Thames | KT1 2DN

www.surreycc.gov.uk

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