CHAPTER 1

Introduction

Background

1.1 All mineral and waste planning authorities are required by statute to prepare and keep under review mineral and waste policies for their area. South Gloucestershire Council was constituted as a unitary authority under the Avon (Structural Changes) Order 1995 and took over the role of mineral and waste planning authority for its area from Avon County Council on 1 April 1996.

1.2 The legislation concerning local government reorganisation in the former Avon area allows the four unitary authorities to prepare mineral and waste policies either for their own council area or jointly with one or more authorities. Initially South Gloucestershire Council decided to prepare a separate local plan for minerals and to incorporate the waste policies as a chapter within the South Gloucestershire Local Plan. Publication and public consultation on draft policies for minerals and waste, within the separate local plans described, took place in 1998. In December 1998 the Council decided to merge the waste and minerals policies within a single local plan.

1.3 The South Gloucestershire Minerals and Waste Local Plan has been prepared under the provisions of the Town and Country Planning Act 1990, as amended by the Planning and Compensation Act 1991, and in accordance with the Town and Country Planning (Development Plans) (England) Regulations 1999. This adopted Plan replaces the Mineral Working in Avon Local Plan insofar as it applies to South Gloucestershire and, together with the Joint Replacement Structure Plan and the South Gloucestershire Local Plan, will constitute the Development Plan for South Gloucestershire once the latter Plan is adopted.

Purpose of the Plan

1.4 The functions of the Plan are:-

1. to translate national and regional policy into detailed policies and proposals;

2. to develop in more detail and at a local level the policies and proposals of the Joint Replacement Structure Plan;
3. to provide a framework for determining applications for mineral and waste operations;

4. to guide and inform the minerals and waste industry;

5. to bring mineral and waste planning issues before the public and inform residents and property/landowners how their interests will be affected by future mineral and waste development.

1.5 With the introduction of Section 54A of the Town and Country Planning Act 1990 development control decisions must accord with the development plan “unless material considerations indicate otherwise”. This requirement gives everyone concerned with development in an area a measure of certainty about the types of development that will or will not be permitted over a given time period.

Plan Timescale and Format

1.6 The end date of the Local Plan is 2011. It is intended that the Plan will be reviewed as necessary to keep its policies and proposals up-to-date. Such reviews will be carried out at intervals of no more than 5 years.

1.7 The Local Plan consists of a written statement and a Proposals Map. The Written Statement sets out and justifies the Plan’s policies and proposals. The Proposals Map is on an ordnance survey base of 1:50,000 and identifies the areas to which various policies apply. Inset maps at a scale of 1:10,000 have been produced for those areas where a greater level of detail is required.

Plan Programme

1.8 For minerals, a Project Brief was published in December 1997. This served to give notice of the Council’s intention to prepare a Minerals Local Plan. The Project Brief was circulated for information and comment.

1.9 The Draft Minerals Local Plan was approved by South Gloucestershire Council on 6 August 1998 as a basis for public consultation, and was the subject of public consultation between October and December 1998.

1.10 As the draft waste policies were incorporated within the South Gloucestershire Local Plan, consultation on them was an integral part of the programme for the preparation of that Local Plan. A South Gloucestershire Local Plan Project Brief was published in July 1996 and circulated for information and comment. The Draft South Gloucestershire Local Plan was approved for consultation purposes in November 1997 and extensive consultation took place between March and May 1998.
1.11 The Council subsequently decided to incorporate minerals and waste policies within one document. The resultant Minerals and Waste Local Plan was placed on formal ‘deposit’ for a statutory period of six weeks from 1 October - 15 November 1999. Following consideration of the representations received, changes were made to the Plan and a Revised Deposit Plan was placed on ‘deposit’ on 18 August 2000 for a further six weeks.

1.12 A public local inquiry, chaired by an independent Inspector, was held in February/March 2001 into all outstanding objections to the Local Plan. The Inspector’s Report was subsequently received by the Council in June 2001 and published in the July. The Council considered the Inspector’s Recommendations in November 2001 and published Proposed Modifications in December 2001. In April 2002 the Council considered the responses to the Proposed Modifications and resolved to adopt the Plan without proposing further modifications that materially affected the content of the Plan.

Fig.1 Stages Leading to the Adoption of the South Gloucestershire Minerals and Waste Local Plan

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 1997</td>
<td>PROJECT BRIEF** Consultation on Local Plan Project Brief and Provisional Aims and Objectives</td>
</tr>
<tr>
<td>Autumn 1998</td>
<td>CONSULTATION DRAFT PLAN** Public Consultation on Draft Plan</td>
</tr>
<tr>
<td>Autumn 1999</td>
<td>‘FIRST’ DEPOSIT PLAN Deposit Plan placed on public deposit for 6 week period (October/November 1999)</td>
</tr>
<tr>
<td>Late Summer 2000</td>
<td>‘SECOND’ DEPOSIT PLAN Revised Deposit Plan put on public deposit for further 6 week period (mid August - end of September 2000).</td>
</tr>
<tr>
<td>Late Feb/March 2001</td>
<td>PUBLIC LOCAL INQUIRY Unresolved Objections considered by an Inspector at a Public Local Inquiry</td>
</tr>
<tr>
<td>Summer / Autumn 2001</td>
<td>INSPECTOR’S REPORT Council receives, publishes and considers the Inspector’s Report</td>
</tr>
<tr>
<td>Winter 2001</td>
<td>MODIFICATIONS Further amendments to the Plan put on public deposit for 6 week period (early Dec 2001 - mid Jan 2002)</td>
</tr>
<tr>
<td>May 2002</td>
<td>ADOPTION Plan Adopted</td>
</tr>
</tbody>
</table>

** The Project Brief and Consultation Draft Plan related to minerals only. Waste was included in the South Gloucestershire Local Plan Project Brief and Consultation Draft Plan.
Environmental Appraisal

1.13 The Government, as set out in revised PPG12, expects local authorities to carry out a full environmental appraisal of their development plans. This appraisal should encompass economic and social issues, as well as environmental concerns. The appraisal process should be an important element of every stage of the development plan process, and should be an iterative process. PPG12 expands upon the guidance given in the earlier PPG12 and which was the relevant advice for the previously published versions of this Plan.

1.14 However, at the outset of the environmental appraisal process the Council broadened the environmental appraisal process to take into account economic and social considerations; in effect carrying out a ‘Sustainability Appraisal’. Moreover, the Council considered that it should be a continuous ‘iterative’ process, commencing at the outset of preparing the plan, leading to refinement, improvement and development of policies and proposals and not undertaken as a ‘one-off’ exercise at the end. By taking this approach, the Council has reflected latest Government guidance throughout the plan preparation process.

1.15 The first stage of the process was commenced prior to preparing both the draft Minerals Local Plan and the draft South Gloucestershire Local Plan. In summary, it involved defining (a) sustainability criteria, (b) what would have a beneficial effect on these criteria and (c) the sort of policies which would help achieve these beneficial effects. A consistent approach has been taken on both Plans, so the draft minerals and waste policies have been subject to a similar sustainability exercise.

1.16 In parallel with public consultation on both the Minerals Local Plan and the South Gloucestershire Local Plan, the Council commissioned an independent review of the contents of the Plans and of the first stage of the appraisal process. The second stage, which involved appraising each policy and aim of the Draft Plan against the defined sustainability criteria was overseen by, and the process subsequently validated by, consultants. In response to the findings of the sustainability appraisal, amendments were incorporated into the policies, aims and text of the Deposit Plan. The policies of the Deposit Plan were also subject to appraisal in the same way, and amendments were incorporated into the text and policies of the Revised Deposit Plan. Additionally, those policies in the Revised Plan which were either substantially amended, or were new policies, were also appraised prior to the Revised Plan being
finalised. The policies in the Adopted Plan have not substantially changed from the
Revised Deposit Plan and have not, therefore, been reappraised. A description of
the whole sustainability process is available as a separately published document, in
addition to previously published documents which set out the findings of the
appraisal of the Consultation Draft Plan and of the Deposit and Revised Deposit
Draft Plans. For the ease of the reader, Appendix 2 of this Plan provides a
summarised appraisal of the Adopted Plan policies.

1.17 In responding to the findings and recommendations of the appraisal process, the
Council considered the appraisal alongside the public consultation responses. The
Council has taken an integrated approach to dealing with all comments on policies.
Consequently, it is not possible to distinguish, within the text of the Plan, those
changes which are directly attributable to the sustainability appraisal process. The
separately published reports provide more indication of how policies have changed
in response to the appraisal findings.
Geology & Mineral Resources

2.1 South Gloucestershire lies between the Cotswold Hills to the east and the Severn Estuary to the west. Geologically the area is very varied, having representations of nearly every Geological System exposed at the surface, the exceptions being the Ordovician and Cretaceous. Generally the older Palaeozoic rocks are exposed in the centre of South Gloucestershire, with younger Mesozoic rocks to the east and north-east. More recent estuarine alluvial deposits cover the Lowlands adjacent to the Severn Estuary in the west.

2.2 In landscape terms much of South Gloucestershire is anomalous in that the outcrops of older and harder Palaeozoic rocks do not form uplands but are characterised by low undulating terrain. This is because much of the area formed part of an ancient erosion surface which was reduced to a low relief before the deposition of the Mesozoic strata. It is therefore the younger rocks, most notably limestones of Jurassic age, which form the highest land of South Gloucestershire, that being the Cotswold escarpment to the east.

2.3 The alluvial flatlands adjacent to the Severn Estuary are extensive and form a distinctly contrasting landscape to that of the central and eastern parts of South Gloucestershire. Flat pastures predominate, bounded by drainage ditches, known locally as ‘rhines’. Rarely does the land in this area rise above 6 metres AOD.

2.4 Nearly all the rivers west of the Cotswold scarp flow into the Severn Estuary, whereas those which follow the dip slope to the east, other than the Bristol Avon which detours to the west, join the River Thames.
2.5 The rock types of South Gloucestershire within each Geological System are set out below in chronological order, together with the quarrying operations they give rise to:-

**Cambrian**
The oldest rocks of South Gloucestershire are represented by the Tremadoc series which are found in an inlier which extends north of Tortworth. These rocks are unworked and consist mostly of grey micaceous shales with interbeds of siltstone and very fine grained sandstones.

**Ordovician**
Missing.

**Silurian**
Mudstones, sandstones and some limestones of Silurian age are found in a number of small inliers in the Tortworth and Charfield areas. These small exposures are unworked.

**Devonian**
Continental red beds of the Old Red Sandstone occur in the Thornbury inlier and around the Coalpit Heath Syncline. Small quantities of sandstone have been worked in the past from the Upper Old Red Sandstone.

**Carboniferous**

*Lower Carboniferous*
Consists predominantly of Carboniferous Limestones which form the most extensive outcrop of all the Palaeozoic rocks of South Gloucestershire. They outcrop on the northern rims of the Bristol Coalfield, north to Tortworth then south to Chipping Sodbury, and in isolated inliers at Wick and Codrington.

The Carboniferous Limestone is nowadays by far the most important mineral resource in South Gloucestershire, being utilised for roadstone and construction aggregate. Active quarries are located at Tytherington, Chipping Sodbury, Wickwar and Wick. There is also a temporarily inactive site near Cromhall.
Fig 2: Simplified Geology of South Gloucestershire showing sites of mineral extraction
**Upper Carboniferous**

Formed in deltaic and swamp conditions these rocks can be split into two groups:-

(i) **Quartzitic Sandstone** - which outcrops on the northern and north-east rim of the Bristol Coalfield between Chipping Sodbury and Cromhall, and in the Wick inlier. Small quantities of sandstone are extracted from the Cromhall Quartzite at Cromhall. These rocks have skid resistant properties and are used as a top dressing in road surfacing;

(ii) **Coal Measures** - which include the coal seams and the commonly occurring Pennant Sandstone are found south of Cromhall through Coalpit Heath to Kingswood in the Coalpit Heath Syncline and Kingswood Anticline.

For over a hundred years coal was the most important extractive industry of South Gloucestershire. Centred on Kingswood, the Coalfield spread through South Bristol and north through Coalpit Heath to Yate. Coal mining reached its peak in Kingswood between 1870 - 1890. From the late 1950’s the industry steadily declined due to the exhaustion of workable reserves and difficult geological conditions.

The last working mine to close in South Gloucestershire was at Harry Stoke.

Historically, there has been some small extraction of iron from Haematite lodes in fissured Pennant Sandstones around Iron Acton and Frampton Cotterell. At Wick, iron oxides known as ‘oxide’ or ‘ochre’ were worked from pockets in the Carboniferous Limestone.

The Pennant Sandstone itself has been used locally for building stone and dry stone walling but, nowadays, its uses are limited and it is no longer extracted in South Gloucestershire.

Coal Measure Clays are extracted for engineering bricks and pipes at Almondsbury and a similar clay pit is seasonally exploited at Shortwood.

**Permo-Triassic**

The Triassic rocks are mostly sandstones, mudstones and conglomerates which occur as thick sequences of terrestrial red beds which lie unconformably on deeply folded Permian rocks. The Triassic rocks are well seen in the classic exposures of Aust Cliff which is situated at the eastern end of the old Severn Bridge, and are widely exposed throughout the central area of South Gloucestershire.
The mineral Celestite (Strontium Sulphate) is commonly found in the Triassic Keuper Marls of the area. For over 100 years this mineral was extracted from shallow pits situated mostly to the west of Yate. Although production ceased recently, the area was at one time the world’s leading producer of Celestite.

The Permo-Triassic rocks have only been locally used on a minor scale for building stone, or as bulk fill, such as on the Second Severn Crossing approach roads.

**Jurassic**

This period heralded a return to marine conditions. The early Jurassic rocks occur as a wide north/north-east trending belt in the east, forming predominantly low lying areas of heavy clay with some limestones and various mudstones, silts and sandstones. Later deposition formed the Inferior Oolite Group, thick sequences of shallow water marine limestones, which make up the bulk of the Cotswold escarpment in the east.

The Blue Lias Limestone has been locally exploited on a small scale for building stone or hardcore. Similarly the Oolite Limestones can be seen in buildings and dry stone walls in the Cotswolds.

**Cretaceous**

Missing.

**Quaternary**

These beds consist of various unconsolidated sediments comprising alluvium, glacial deposits and head deposits. These are found predominantly in the west adjacent to the Severn Estuary. Until the mid 1990’s, estuarine alluvial clays were exploited for brick making at Crooks Marsh, Severnside.
<table>
<thead>
<tr>
<th>Period</th>
<th>Table: Simplified Table of Geological Formations present in South Gloucestershire</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cainozoic</strong></td>
<td></td>
</tr>
<tr>
<td>Quaternary</td>
<td>{Holocene, Pleistocene} Unconsolidated Sediments eg. Alluvium, Glacial deposits, head deposits</td>
</tr>
<tr>
<td><strong>Mesozoic</strong></td>
<td></td>
</tr>
<tr>
<td>Jurassic</td>
<td>{Upper Jurassic} Oxford Clays \n{Middle Jurassic} Bathstones and Inferior Oolite Limestones \n{Lower Jurassic} Lias Clay \nWhite and Blue Lias Limestones</td>
</tr>
<tr>
<td>Triassic</td>
<td>Sandstones, mudstones, marls including the Keuper Marl with Celestite, and Conglomerates</td>
</tr>
<tr>
<td><strong>Paleozoic</strong></td>
<td></td>
</tr>
<tr>
<td>Permain</td>
<td>Upper Coal Measures including the Pennant Sandstones Quartzitic Sandstones</td>
</tr>
<tr>
<td>Carboniferous</td>
<td>{Upper Carboniferous} Carboniferous Limestones and Cromhall Sandstone \n{Lower Carboniferous}</td>
</tr>
<tr>
<td>Devonian</td>
<td>Old Red Sandstones</td>
</tr>
<tr>
<td>Silurian</td>
<td>Mudstones and Sandstones including the Tortworth and Thornbury beds</td>
</tr>
<tr>
<td>Cambrian</td>
<td>Tremadoc Shales, siltstones and fine sandstones</td>
</tr>
</tbody>
</table>
CHAPTER 3

Policy context & plan strategy

Policy context

The European Framework

3.1 The EC Framework Directive on Waste (75/442/EEC as amended by 91/156/EEC and 91/692/EEC) sets out a number of objectives for the management of waste. The key objective is to ensure that waste is recovered or disposed of without endangering human health and without using processes or methods which could harm the environment. A further objective promotes the establishment of an integrated and adequate network of waste disposal installations, both to enable the EC to become self-sufficient in waste disposal and to enable waste to be disposed of in one of the nearest appropriate facilities.

3.2 The Directive also requires that waste plans encourage the prevention or reduction of waste production and its harmfulness; encourage the recovery of waste by means of recycling, reuse or reclamation; and encourage the use of waste as a source of energy.

3.3 The Landfill Directive was adopted by the Council of Ministers on 27 April 1999 and came into effect in the summer of 2001. It introduces greater controls over the design and operation of landfills and will curtail co-disposal of waste. A major objective is the staged reduction in the volume of biodegradable municipal waste going to landfill, with an ultimate target of 35% by volume of the 1995 figure. In countries like the UK which are very dependent upon landfill, achievement of this target is postponed by 4 years to 2020. The targets set for the UK on the proportion of biodegradable municipal waste still going to landfill are 75% by 2010, 50% by 2013 and 35% by 2020.
3.4 Other requirements set by the Landfill Directive include:

- banning co-disposal of hazardous and non-hazardous wastes, and requiring separate landfills for hazardous, non-hazardous and inert wastes;
- banning landfill of tyres;

3.5 A Waste Incineration Directive has also come into force. This imposes tough emission standards on both new and existing incineration and co-incineration plants.

The National Framework

3.6 The Town and Country Planning Act 1990 (as amended by the Planning and Compensation Act 1991) imposes a mandatory requirement on Mineral and Waste Planning Authorities to prepare “detailed policies for their area in respect of development consisting of the winning and working of minerals or involving the depositing of mineral waste” and “detailed policies in respect of development which involves the depositing of refuse or waste materials other than mineral waste.”

3.7 National policy guidance is set out in a series of Planning Policy Guidance Notes (PPGs) and Minerals Planning Guidance Notes (MPGs). The most relevant of these for this Plan are:-

- PPG1 ‘General Policy and Principles’ (February 1997)
- PPG10 ‘Planning and Waste Management’ (September 1999)
- PPG12 ‘Development Plans’ (December 1999)
- PPG23 ‘Planning and Pollution Control’ (July 1994)
- MPG1 ‘General Considerations and the Development Plan System’ (June 1996)

In addition there are a number of other PPGs and MPGs which refer to minerals and waste in the context of local plan preparation.
3.8 In May 2000, the Government published the Waste Strategy 2000 for England and Wales. This Strategy replaces the earlier White Paper “Making Waste Work”. It sets out the Government’s policy framework for sustainable waste management over the next twenty years and the implementation of the European Waste Framework and Landfill Directives. The targets set by the Strategy which have a landuse implication are:

- to reduce industrial and commercial waste sent to landfill to 85% of 1998 levels by 2005;
- for 40% of municipal waste to be recovered by 2005, 45% by 2010 and 67% by 2015;
- 25% of household waste to be recycled or composted by 2005, 30% by 2010 and at least 33% by 2015.

3.9 Limiting Landfill, published in October 1999, set out for consultation options for achieving the Landfill Directive’s requirements for the diversion of biodegradable municipal waste from landfill. The outcome of this consultation has been included in the National Waste Strategy.

The Regional Framework

3.10 Regional Planning Guidance

This Plan has been prepared within the context of the Regional Planning Guidance for the South West (RPG10) published in July 1994. For minerals, the Guidance reaffirmed the Government’s commitment to the principles of sustainable development by emphasising that, in providing for a supply of minerals, a balance must be struck between the economic and environmental requirements of the community. With respect to waste, local plans should identify broad areas of search for new sites, or extensions to existing sites, and set out criteria for assessing proposals. Additionally plans should consider the opportunities for co-ordinating mineral extraction with waste disposal, and should make provision for alternative methods of disposal and for waste recycling.

3.11 This Guidance has now been revised to guide development in the Region over the period to 2016, with the publication of a revised RPG10 in September 2001. This encourages local authorities to collaborate to develop sub-regional waste management planning policies. With respect to minerals it recognises that any revision of MPG6 is likely to necessitate a further review of RPG10 in respect of aggregate minerals.
3.12 **Regional Planning Conference/Regional Assembly**

The South West Regional Planning Conference comprised representatives from the planning authorities in the Region. Although the main role of the Conference was to advise the Government Office for the South West on the content of regional planning guidance, planning conferences were also identified as a means of facilitating the sub-regional apportionment of the regional guidelines for future aggregate requirements set out in MPG6, following advice from the appropriate Regional Aggregates Working Party. During 2000/2001 changes in the political and administrative structure of the South West region led to the Planning Conference being subsumed within a South West Regional Assembly which, inter alia, is the new regional planning body.

3.13 **Regional Aggregates Working Party**

Regional Aggregates Working Parties (RAWP) were set up in the early 1970’s by the then Department of the Environment to consider and identify likely problems in the supply of aggregate minerals. They bring together representatives of development and regulatory bodies in a non-executive capacity. South Gloucestershire is a member of the South West Regional Aggregates Working Party (SWRAWP), a technical working group whose membership comprises mineral planning officers, minerals industry representatives, an aggregates recycling representative, the Department for Transport, Local Government and the Regions (DTLR) and the Environment Agency.

3.14 Annual reports are published by SWRAWP to update statistical information on the aggregates minerals industry in the Region and to recommend on the apportionment of the regional production requirements for crushed rock and sand and gravel as set out in MPG6 between the county (and former county) areas of Avon, Cornwall, Devon, Dorset, Gloucestershire, Somerset and Wiltshire. Detailed information is largely drawn from Aggregates Monitoring (AM) Surveys carried out every four years by the RAWP on behalf of DTLR, supplemented by annual inquiries (AMRI returns) undertaken by the individual mineral planning authorities in conjunction with the Central Statistical Office.

3.15 **Regional Technical Advisory Bodies**

In PPG10, the Government advises the setting up of Regional Technical Advisory Bodies, to support Regional Planning Conferences by providing specialist and expert advice on options and strategies for dealing with waste management at a regional
level. Membership of these Bodies should include waste planning and waste management officers, the Environment Agency, representatives from the waste industry, DTLR and statutory consultees. Within the South West Region a Regional Technical Advisory Body was formally established in January 2000.

The Local Framework

3.16 Avon County Structure Plan 1989 - 2001

The Avon County Structure Plan contains a set of policies on minerals. These were approved by the Secretary of State in 1985. Other than a minor amendment in respect of the preferred area for Bath Stone, which is not within South Gloucestershire, the policies for minerals were unchanged by any of the three subsequent Alterations to the Structure Plan. The locational strategy for future mineral working therefore is some 20 years old, having evolved during the late 1970’s when preparation of the Structure Plan first began.

3.17 The Structure Plan contains only one policy specifically dealing with waste issues. This criteria based policy was amplified in January 1993 by supplementary planning guidance which confirmed that the Councils would seek to achieve significant environmental gains through the reinstatement of quarries and derelict or degraded land in applying the policy.

3.18 Joint Replacement Structure Plan 1996 - 2011

With the reorganisation of local government in the Avon area in 1996, the four new unitary authorities agreed to work together to produce a joint structure plan for the Avon area. Although not yet adopted, the Replacement Structure Plan provides the strategic policy guidance for this Minerals and Waste Local Plan. In particular, the Structure Plan provides strategic guidance for the unitary authorities in the level of provision to be made for crushed rock, as well as identifying an appropriate landbank period to be applied for crushed rock. For waste, the Structure Plan encourages the management of waste through options towards the top end of the national hierarchy.

3.19 The Joint Replacement Structure Plan was placed “on deposit” in July 1998 and an Examination in Public into selected matters was held in March 1999. The Plan is currently the subject of a holding direction from the Secretary of State, issued on 17 March 2000, preventing adoption. When both the Replacement Structure Plan and
the Minerals and Waste Local Plan are adopted, they will form the development plan for South Gloucestershire for mineral and waste planning purposes.

3.20 Mineral Working in Avon Local Plan
This Plan, prepared by Avon County Council, was adopted in 1993 and, along with the County Structure Plan, represented the development plan for the Avon area for mineral planning purposes. The Plan expands the strategy of the County Structure Plan which was defined in the late 1970’s. The South Gloucestershire Minerals and Waste Local Plan replaces the Mineral Working in Avon Local Plan within South Gloucestershire. The Mineral Working in Avon Local Plan will, however, remain part of the development plan for the other three unitary authorities within the Avon area until such time as updated minerals policies are produced and adopted by them, either within minerals/minerals and waste local plans or in district-wide local plans.

3.21 Avon Waste Management Plan
In March 1996 Avon County Council, as waste regulation authority, adopted a Waste Management Plan under Section 50 of the Environmental Protection Act 1990. This Plan puts forward a strategy and policies for the management of all waste being handled in the Avon area. In view of local government reorganisation this was in the form of a proposition for consideration by the new unitary authorities in the preparation of their plans. The Council has a statutory duty to have regard to the contents of this Management Plan. The Plan was prepared within the context of the “Making Waste Work” White Paper and takes account both of the Government’s key objectives for waste management and of the ‘regional self sufficiency’ and ‘proximity principle’ concepts.

3.22 South Gloucestershire Local Plan
South Gloucestershire Council is currently producing a district-wide local plan. Both the district-wide local plan and this Minerals and Waste Local Plan, like the Replacement Structure Plan, have an end date of 2011. Where appropriate the district-wide local plan has been taken into account in preparing this Minerals and Waste Local Plan, both in terms of content and to ensure that the two plans are consistent, as together they provide complete local plan coverage for South Gloucestershire. The Deposit Draft Local Plan was subject to public consultation in Autumn 2000. The Revised Deposit Plan is programmed to go “on deposit” in June 2002.
3.23 **Waste Management Policies for South Gloucestershire**

In June 1997 the Council approved and adopted supplementary planning guidance on waste planning as an interim measure pending preparation of a local plan containing waste policies. This guidance has provided the basis for the waste policies in the Minerals and Waste Local Plan, and is now superseded by this Plan.

**Improvements to existing Mineral Sites**

3.24 Government legislation and guidance in recent years has enabled, and continues to enable, mineral planning authorities to secure greater environmental control over mineral workings. In many cases, mineral workings have been operating under outdated and inadequate planning permissions and legislation was introduced to improve such sites. Paragraphs 10.7 and 10.8 of this Plan set out in more detail this legislation. Both through the review of old mineral planning permissions and when a new planning application is submitted, for example, for an extension to a mineral working, the mineral planning authority has the means to secure improvements to the operating and environmental standards at a site. Such improvements may also be gained on land in the vicinity of the mineral site but within the applicant’s control. Where appropriate, the mineral planning authority can also use legal agreements to obtain unopposed revocations of planning permissions to prevent mineral extraction in specific areas.

3.25 South Gloucestershire Council is committed to redressing the effects that past mineral working has had on the environment and amenity of South Gloucestershire, and which is compounded by the extent of unworked land which is subject to planning permissions granted several decades ago and which are still valid. Both through the review of old planning permissions, and the determination of new planning applications, South Gloucestershire Council has actively negotiated with operators and land owners, and will continue to do so, to secure protection for the environment and local amenity. Many of these negotiations are necessarily lengthy and involve legal agreements, but environmental and amenity gains are being achieved. Through continued goodwill on both sides and a partnership between operators and the Council further protection will be sought, thereby leading to greater sustainability.
Strategy statement

Sustainable Development

3.26 A growing awareness of environmental problems has led to greater attention being given to these matters at International, European and National level and the Government is committed to the integration of stewardship of the environment into plans, policies and programmes through “sustainable development” principles. This commitment is being reflected in all aspects of national guidance on minerals and waste.

3.27 The most commonly quoted definition of sustainable development is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland Report, 1987). More recently, Government planning policy guidance on the general approach to planning defines it as development “which seeks to deliver the objective of achieving, now and in the future, economic development to secure higher living standards while protecting and enhancing the environment” (PPG1 para 4). In undertaking sustainability appraisals of both this Plan and the South Gloucestershire Local Plan, the Council has broadened the definition of sustainability to include protection and enhancement of social well-being and community stability, in addition to environmental and economic implications.

3.28 Minerals make an essential contribution to the nation’s prosperity and quality of life and it is nationally recognised that the construction industry must continue to receive a steady and adequate supply of aggregates for this purpose. But the continued exploitation of minerals, both in terms of the loss of the finite mineral resource itself and the environmental costs of extraction, could be considered to conflict with sustainable development principles. The Government, however, in recognition of society’s need for minerals, has interpreted and defined sustainable development in relation to minerals planning as conserving the use of minerals, promoting efficiency of use, minimising waste, stimulating the use of alternatives, higher standards and environmental protection. National guidance in MPG1 defines the objectives for sustainable development for minerals planning as:-
CHAPTER 4

Conservation of mineral resources

Introduction

4.1 South Gloucestershire Council, in accordance with Government policy, supports the principle of sustainable development and ensuring the prudent use of finite resources. Minerals are finite in their natural state and can only be worked where they are found. Opportunities for bringing forward mineral sites which can be worked in an environmentally acceptable way are therefore limited. Consequently it is necessary to ensure that minerals are carefully managed so as to last as long as possible. This includes minimising the production of waste, re-using and recycling minerals and their products, using high quality minerals appropriately, and protecting minerals from unnecessary sterilisation.

Aim

4.2 The Council’s aim for mineral resource protection is:-

To manage South Gloucestershire’s mineral resources for the longer term through the avoidance of mineral sterilisation and the increased use of alternatives to primary material.

Objectives

4.3 The overall objectives in the conservation of mineral resources are:-

(1) To encourage and support the use of lower quality minerals or waste materials, where appropriate, in preference to higher quality primary aggregate;

(2) To restrict non-mineral development which would hinder the working of existing mineral commitments or identified areas for future mineral extraction;

(3) To support the prior extraction of minerals which would otherwise be sterilised by non-mineral development;

(4) To support the re-use and recycling of minerals and their products.
**High Quality Mineral**

4.4 Securing the effective and efficient use of minerals in accordance with sustainability principles can only be achieved if all those involved in producing and using minerals and their products make a commitment to ensuring that development becomes more sustainable. Within South Gloucestershire, there are resources of quartzitic sandstone valued for their high Polished Stone Value (PSV) which are capable of producing High Specification Aggregate for use in road wearing surfaces. Also the Carboniferous Limestone resource in South Gloucestershire makes a high quality crushed aggregate which is suitable across a wide range of uses. In terms of sustainability the end use should be matched to the quality of the mineral. Although it is for the aggregates and construction industries to identify ways of achieving greater efficiency in the use of mineral resources, the Mineral Planning Authority will consider the imposition of an end-use condition should there be a circumstance where overriding need for a high quality mineral justifies the granting of permission for an application that would otherwise be refused.

**Safeguarding Mineral Resources**

**POLICY 1**

WITHIN THE MINERAL RESOURCE AREAS IDENTIFIED ON THE PROPOSALS MAP, NON-MINERAL DEVELOPMENT WHICH WOULD STERILISE OR UNDULY RESTRICT THE FUTURE EXTRACTION OF THOSE MINERAL DEPOSITS WHICH ARE, OR ARE LIKELY TO BECOME, OF ECONOMIC IMPORTANCE, WILL ONLY BE PERMITTED WHERE:

(A) IT IS PRACTICABLE AND ENVIRONMENTALLY ACCEPTABLE TO EXTRACT THE MINERAL PRIOR TO, OR IN PHASE WITH, THE DEVELOPMENT; OR

(B) FUTURE WORKING OF THE MINERAL WOULD NOT BE ENVIRONMENTALLY ACCEPTABLE; OR

(C) THE LAND IS IDENTIFIED FOR NON-MINERAL DEVELOPMENT IN THE DEVELOPMENT PLAN; OR

(D) THERE IS AN OVERRIDING NEED FOR THE DEVELOPMENT ON A SPECIFIC SITE WHICH OUTWEIGHS SAFEGUARDING, OR PRIOR EXTRACTION, OF THE MINERAL DEPOSIT.
POLICY 2

PROPOSALS FOR NON-MINERAL DEVELOPMENT WHICH WOULD BE UNACCEPTABLY AFFECTED BY EXISTING MINERAL WORKING, OR THE WORKING OF SITES PROPOSED IN THIS PLAN, WILL NOT BE PERMITTED.

4.5 As mineral resources are finite, it is important that potential resources of economic significance are not sterilised by non-mineral development and, also, that new sensitive non-mineral development, such as residential development, does not encroach on existing or potential mineral sites to the detriment of its own amenity. Mineral Resource Areas have been identified on the Proposals Map to take account of the presence of existing mineral workings and areas which contain resources which could become of economic importance, although the safeguarding of these resources does not imply that planning permission for mineral working will necessarily be forthcoming. These Areas have been adapted from the Mineral Consultation Areas identified in the Mineral Working in Avon Local Plan.

4.6 Although non-mineral development proposals put forward within these Resource Areas will be subject to the policies of the South Gloucestershire Local Plan, they will in addition also be assessed against Policy 1 before development will be allowed to proceed. A cross-reference to the Resource Areas and Policy 1 will also be included in the South Gloucestershire Local Plan for information, so as to make non-mineral developers aware that within these areas mineral issues will be a material planning consideration in determining applications. Mineral sterilisation considerations will not apply, however, for non-mineral proposals which come forward on land allocated for development in the South Gloucestershire Local Plan (or its predecessors whilst they remain extant), as these will have already been taken into account in assessing the appropriateness of the land for development. Similarly, although Policy 2 will still be applicable, the principle of adverse impact between development on allocated land and existing/proposed mineral workings should not arise. However, and particularly where sensitive development is proposed, the details of each planning application will need to be assessed to ensure that any potential adverse impact can be avoided or mitigated.

4.7 As the mineral content of a Resource Area cannot be accurately assessed without a site investigation, applicants wishing to develop land for non-mineral purposes may be required to supply mineral related information to enable the Council to assess the nature and extent of the mineral deposit.
Where development which would sterilise a mineral resource is allowed to go ahead, prior extraction of the mineral may be desirable so as to prevent this sterilisation. However, prior extraction will only rarely be practicable in South Gloucestershire given the type of mineral resources within the area.

**Secondary And Recycled Materials**

**POLICY 3**

PROPOSALS FOR RECYCLING CONSTRUCTION AND DEMOLITION WASTE FOR USE AS SECONDARY AGGREGATE WILL BE PERMITTED PROVIDED THAT:

(A) **THE PROPOSAL WILL NOT CAUSE AN UNACCEPTABLE DEGREE OF VISUAL INTRUSION OR AN UNACCEPTABLE LEVEL OF DISTURBANCE BY WAY OF NOISE, DUST, FUMES, SMELL, OR TRAFFIC; AND**

(B) **IN THE CASE OF A PERMANENT FACILITY, THE SITE IS EITHER CLOSE TO THE SOURCE OF THE WASTE AND/OR THE MARKET FOR THE RECYCLED AGGREGATE.**

WHERE THE PROPOSAL IS AT A QUARRY OR LANDFILL SITE, THE LOCAL PLANNING AUTHORITY WILL NEED TO BE SATISFIED THAT THE SCALE AND EFFECT OF THE RECYCLING OPERATIONS CAN BE UNDERTAKEN WITHOUT CONFLICTING WITH OR UNREASONABLY DELAYING THE IMPLEMENTATION OF THE CURRENT RECLAMATION SCHEME FOR THE SITE.

The Government is committed to reducing the reliance on primary sources of minerals for aggregate purposes and the increased use of secondary, waste and recycled substitutes is seen as one means of achieving this. In MPG6 the Government is looking for alternative sources, such as waste and recycled materials, to supply 12% of total aggregate production over the period 1992-2006. As a result of increasing the use of secondary and substitute materials there should be a reduction in the quantities of waste requiring final disposal to land, which is an important aspect in achieving sustainable development in waste planning. Recycling also provides the opportunity to reuse traditional building materials in place of new materials in development and maintenance work, thereby contributing to the character and distinctiveness of an area.
4.10 At present there is only one permanent aggregate recycling facility in operation within South Gloucestershire. This is located in the Filton/Stoke Gifford area and deals almost exclusively with material arising within the railway network. In response to the landfill tax several of the waste management companies have either enhanced their existing operations or established new waste transfer facilities to include the separation and recycling of aggregate and other materials from construction and demolition waste. At present most of the recovered aggregate material is put to low grade uses.

4.11 Recycling sites may be permanent or temporary, and the amount of material available for recycling will be dependent upon the local circumstances, such as major construction projects, and consequently it can be difficult to secure steady supplies of construction and demolition waste. Policies, therefore, need to be sufficiently flexible to encourage investment in recycling. Temporary facilities on the site of a development project will generally constitute permitted development under the Town and Country Planning (General Permitted Development) Order 1995 and will, therefore, fall outside the scope of Policy 3.

4.12 Recycling facilities, however, often generate environmental problems such as noise, dust, visual intrusion and traffic impacts. Therefore, both the location and the timescale of a facility will be important considerations.

4.13 Existing mineral sites or landfill operations may be suitable locations for recycling facilities where this activity is subordinate to the mineral or landfill operations. However, the cumulative effect of introducing recycling onto such sites in relation to noise, dust and traffic and the possible prolonging of disturbance in the locality will need to be carefully assessed. This will include the effects of any delay to site restoration.

4.14 All proposals for recycling facilities will need to avoid adverse impacts on the environment and residential amenity. Permanent facilities will additionally need to be located where they will serve established, permanent markets and good transportation links will, therefore, be essential.
POLICY 4

PROPOSALS FOR RE-WORKING OR RE-USING MINERAL WASTES AND INDUSTRIAL BY-PRODUCTS, OTHER THAN CONSTRUCTION AND DEMOLITION WASTE, WILL BE PERMITTED PROVIDED THAT THE PROPOSALS WOULD NOT HAVE AN UNACCEPTABLE ENVIRONMENTAL IMPACT. IN CASES WHERE THE LAND CONCERNED HAS BEEN SATISFACTORILY RESTORED OR HAS NATURALLY REGENERATED TO A BENEFICIAL AFTERUSE, THE PROPOSAL SHOULD ACHIEVE AN OVERALL ENVIRONMENTAL BENEFIT.

4.15 Within South Gloucestershire there are currently no activities, other than the recycling of construction and demolition waste, concerned with the re-working or re-use of mineral waste or industrial by-products. The last such activity was the partial removal in the mid-1990’s of a colliery spoil heap at Lyde Green for use in the Second Severn Crossing. There are at present no other known sources of secondary material in the area. Although the use of secondary materials helps to achieve sustainable objectives, as with the recycling of construction and demolition waste, this use may itself raise environmental concerns. In particular, the reworking or removal of sites which, either through restoration or natural regeneration, have become attractive or valued local features will not be permitted, unless the environmental benefits of the proposal override the harm that would result.

Borrow Pits

POLICY 5

PROPOSALS FOR BORROW PITS WILL BE PERMITTED ONLY WHERE:

(A) A PRACTICABLE AND ENVIRONMENTALLY ACCEPTABLE SOURCE OF SECONDARY MATERIALS IS NOT AVAILABLE;

(B) MATERIAL FROM THE BORROW PIT IS USED ONLY TO SUPPLY THE CONSTRUCTION PROJECT IDENTIFIED;

(C) THE SITE IS LOCATED IN CLOSE PROXIMITY TO THE CONSTRUCTION PROJECT IDENTIFIED;

(D) THE PROPOSAL WOULD RESULT IN ENVIRONMENTAL BENEFITS COMPARED WITH OBTAINING THE MATERIAL FROM NEW OR EXISTING SOURCES;
(E) THE SITE CAN BE RECLAIMED TO AN APPROPRIATE STANDARD AND WITHIN THE TIMESCALE OF THE ASSOCIATED CONSTRUCTION PROJECT; AND

(F) THE USE OF THE SITE WILL AVOID OR MINIMISE USE OF PUBLIC ROADS.

4.16 Borrow pits are used to supply material for a specific construction or engineering project. The voids created by this type of excavation are normally back-filled with surplus or unusable indigenous material and the land restored. The excavation of material from small sites close to the project may be preferable to hauling material from existing quarries.

4.17 There are a number of environmental benefits associated with the use of borrow pits in place of conventional quarries - the possible use of lower grade material, use of a mineral resource that might otherwise be sterilised, minimising traffic impact, preventing increased activity at existing quarries, and restoration over a much shorter timescale than a conventional quarry. A proposal for a borrow pit will only be considered appropriate where such environmental benefits can be secured. Where, however, secondary materials could be made available to supply the construction or engineering project, borrow pits will not be considered appropriate in principle.

4.18 Where borrow pits are considered acceptable, safeguards will be required to protect local residents and the environment and to ensure satisfactory reclamation. Guidance on restoration opportunities and reclamation standards are set out in Policies 28 - 30 and the supporting text. Although reclamation can be very effective due to the short periods involved, unless carefully controlled the timescale can give rise to serious difficulties if the contractor completes the project before the borrow pit is restored. Restoration involving the import of material other than from the associated construction project will not be considered appropriate, unless required as part of the approved restoration scheme, as it would be likely to delay the time period for reclamation as well as conflict with the purpose and benefits of a borrow pit. Should any such proposals come forward they would also be assessed against the policies on waste management in Chapter 9.
CHAPTER 5

Environmental protection

Introduction

5.1 Both mineral and waste activities can have a considerable impact on the environment and local communities although, through reclamation, there can be opportunities for achieving environmental benefits. Although this impact can never be totally eliminated, careful planning can ensure that adverse effects are minimised and that any opportunities for environmental benefits are maximised. This necessitates the Local Planning Authority having the requisite information from applicants to be able to undertake a full and proper assessment of the potential impact of a proposal.

5.2 This Environmental Protection chapter is concerned with conserving and, wherever possible, enhancing the environment of South Gloucestershire through the planning process, by identifying those environmental considerations against which any planning application will be assessed. Government policy states “that the countryside should be safeguarded for its own sake and non-renewable and natural resources should be afforded protection...The priority now is to find new ways of enriching the quality of the whole countryside whilst accommodating appropriate development, in order to complement the protection which designations offer” (PPG7 para 2.14).

Countryside character will therefore be taken into account when assessing the impact of development to ensure that proposals, both for mineral and waste operations and for restoration, are appropriate and in keeping with the local and wider landscape context and safeguard local distinctiveness.

5.3 The environmental considerations in this Chapter apply to all development consistent with the winning and working of minerals or involving the management of refuse or waste materials, and the term “minerals or waste development” is used in the policies to reflect this. A fuller definition of “minerals development” and “waste development” is contained in the Glossary.
5.4 The material planning considerations included in this chapter are divided into two sections - environmental resources and operational practices.

Planning Applications

5.5 Applicants are advised to discuss their proposals with the Local Planning Authority prior to formal submission. In this way the Planning Authority can advise on areas that require further assessment or information. It is in the interests of both the Local Planning Authority and the applicant that the information submitted with a planning application is sufficient to enable the Planning Authority to undertake a full assessment of the potential impact of a proposed development. Where appropriate, the Planning Authority may secure such information through the exercise of its powers under Article 4 of the Town and Country Planning (Applications) Regulations 1988 or Article 3 of the General Development Procedures Orders 1995 (GPDO).

5.6 Minerals and waste developments can have significant impacts outside the boundary of the application site. For example, groundwater can be affected by pollution and also by lowering of levels through pumping. These effects can be felt away from the site, by a reduction in the quality and/or quantity of water flowing into the surface environment in springs and watercourses or available from wells and boreholes. The Local Planning Authority will, therefore, require applicants to demonstrate clearly an understanding both of existing site conditions and how the proposed development will impact on the surrounding area. This may include, as appropriate to the scale and nature of the application, site surveys and impact assessments to cover, inter alia, hydrology and hydrogeology, ecology, landscape and visual analysis, transport implications, archaeology, public rights of way, blasting, noise and dust both on and off-site. Monitoring of certain conditions, such as groundwater quality, may also be necessary. Applicants are encouraged to discuss the scope, and level of detail of the impact assessment with officers from relevant organisations (eg: Environment Agency, DEFRA, Forestry Commission and English Nature), as well as the Council’s specialist officers, in advance of a planning application. Where the application involves mineral extraction or the disposal of waste, and unless the proposal is small-scale, an Environmental Statement is likely to be required under the terms of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999. In these circumstances a more formal pre-application stage may be appropriate.
5.7 Where the proposed development would result in adverse environmental or amenity impacts, appropriate amendments to the details of the proposal or mitigation measures will be required so that impacts are avoided wherever possible or, where unavoidable, are kept to a minimum and mitigated against. Where features cannot be retained or effectively mitigated against, and their loss is acceptable, compensation and substitution works will be required. Where appropriate, applicants will be encouraged to carry out certain mitigation, enhancement, compensation and/or substitution works in advance of development. Where features of value are safeguarded from the proposed development, operators will be expected to put forward proposals for enhancement works and/or management of the features.

5.8 However there may be instances where mitigation or compensation cannot achieve the necessary environmental or amenity protection to make the proposal acceptable. Likewise, applications which do not provide the information necessary to enable the impact of the proposed development to be evaluated will be refused in the interests of sustainability. The level of detailed information needed will be dependent upon the complexity of the application and/or the sensitivity and potential impact of the development proposal on the surrounding area.

Planning Conditions and Obligations

5.9 It is normally necessary for conditions to be attached to planning permissions to allow development proposals to proceed which otherwise would not be acceptable. Government guidance on conditions is contained within Mineral Planning Guidance Notes, Planning Policy Guidance Notes and within Circular 11/95. The Local Planning Authority will have regard to this guidance when imposing conditions.

5.10 Where a planning objection to a development cannot be overcome by the imposition of a planning condition, then the use of a planning obligation or legal agreement may be an appropriate mechanism to secure the necessary ameliorative or compensatory measure(s). South Gloucestershire Council will continue to seek planning obligations where circumstances are appropriate and in accordance with Government guidance as set out in Circular 1/97 ‘Planning Obligations’. The following are examples of improvements and commitments which have been secured by South Gloucestershire Council by planning obligation:-

(a) Transportation - road and access works, rail access and facilities, traffic management, routing of vehicles;
(b) Enhancement and Management both within and outside the application site - woodland management, advanced planting, contributions to the Community Forest initiative;

(c) Landscape Proposals;

(d) Archaeology - preservation and management, excavation and recording of archaeological sites or features;

(e) Nature Conservation - conservation and enhancement of biodiversity through species protection and the conservation, enhancement or creation of habitats, conservation and recording of sites of geological interest;

(f) Rights of Way - protection, improvement and creation of new footpaths and bridleways;

(g) Public Access - protection and future provision, enhancing access for the less abled, car parking, commuted sum for maintenance;

(h) Mineral Extraction - to protect land from being worked, the revocation of old mineral planning permissions;

(i) Historic Environment - protection, maintenance, conservation of distinctive buildings and structures.

(j) Protection of the Water Environment
Section 1
Environmental resources

Aim
5.11 The overall aim of the policies in this section is:-

To conserve and enhance South Gloucestershire’s natural and cultural heritage, thereby safeguarding and, wherever possible, improving the environment and quality of life for South Gloucestershire’s residents.

Objectives
5.12 The Local Plan objectives in respect of environmental resources are:

(1) To conserve and, where possible, enhance the character, diversity, natural beauty and amenity of the landscape of South Gloucestershire for its own sake;

(2) To conserve and enhance the biodiversity of South Gloucestershire, by preventing the isolation and decline of species and habitats and seeking the creation of new habitats and the management of features of nature conservation importance;

(3) To protect the character, appearance and setting of buildings, sites, structures, areas and landscapes of special historic, architectural or archaeological interest or of high visual quality;

(4) To seek the protection of the best and most versatile agricultural land from irreversible loss;

(5) To seek the conservation of water resources and protection of the water environment including surface and groundwater resources;

(6) To protect against the risk of flooding.

Landscape Protection

POLICY 6

PROPOSALS FOR MINERALS OR WASTE DEVELOPMENT WILL BE PERMITTED ONLY WHERE THEY CONSERVE AND, WHERE POSSIBLE, ENHANCE THE CHARACTER, QUALITY AND AMENITY OF THE LANDSCAPE AND DISTINCTIVENESS OF THE LOCALITY.

5.13 The integration of mineral workings and waste management sites into the landscape is a phased process and links both the operational and reclamation stages. However it is important that the conservation and enhancement of the landscape character of the site integrates with the wider landscape context. The importance of restoring landscape character and unity at the reclamation stage is addressed in Paragraphs 5.102 - 5.109.
5.14 National guidance (PPG7) has broadened its focus from specific landscape
designations to give emphasis to safeguarding the countryside for its own sake and
promotes a character based approach to enriching the quality of the whole
countryside.

5.15 The Countryside Commission has identified 181 different countryside character areas
within England which will be used as a basis for analysis at the local level. Four of
these character areas make up the landscape of South Gloucestershire - Bristol, Avon
Valley and Ridges; Cotswolds; Severn and Avon Vale; Severn Estuary.

5.16 South Gloucestershire Council is carrying out a range of landscape analysis/
characterisation initiatives which will inform the development process. These bring
together all aspects of the environment which make up the character of particular
areas and place that locality within the wider landscape context. Initiatives being
undertaken, or to be undertaken, are:

(a) Historic Landscape Survey, providing mapped and written information covering the
whole of South Gloucestershire;

(b) Landscape Assessment, providing mapped and written information as to the landscape
character and significant constituent features, and a strategy for their conservation and
enhancement, across the entire South Gloucestershire area;

(c) Countryside Design Summary, based on the assessment of the landscape across the whole
of South Gloucestershire;

(d) Village Design Statements, prepared by local communities, defining local distinctiveness
at the village level;

(e) Conservation Area Appraisals;

(f) Local Biodiversity Action Plans to protect species and habitats, as well as the character of
particular natural areas, to be prepared in accordance with existing National and Regional
Biodiversity Strategies;

(g) Re-survey of Sites of Nature Conservation Interest

Where appropriate, this information will be adopted as supplementary planning
guidance.

5.17 Where landscape character assessment information is not available, is insufficiently
detailed or requires up-dating, applicants will be required to support proposals for
development with information demonstrating how such proposals conserve and,
where possible, enhance, the character, distinctiveness and diversity of the local
landscape.
5.18 While recognising that mineral resources can only be worked where they occur, it is also the case that important and valued landscapes can only be protected where they occur. The landscape is made up of many elements which combine to give distinctiveness and character to an area. In order, therefore, to conserve the character and distinctiveness of the landscape, minerals and waste development proposals should identify the key characteristics of a site and its surroundings and retain those features which are the most important and which are not capable of re-creation, such as key wildlife habitats and historic boundary features. Reclamation schemes should show appropriate gradient slopes and field patterns to encourage the restoration of landscape unity. Significant existing features such as hedgerows, woodland and trees should be retained and conserved where possible and used in conjunction with the landform to reduce the impact of mineral workings and to help integrate the development and the reclamation of the site with the surrounding landscape. Special regard will need to be paid to the effect that any development proposals may have on the long term health and viability of trees of significant landscape, visual amenity or nature conservation value. Additionally, compensation works will be sought where development involves the loss of trees, woodland or other characteristic landscape feature.

5.19 Enhancement of the landscape can be achieved by the management of existing landscape features, and by the creation of new features and habitats which encourage ecological richness and new links between existing features. It can be achieved during site operations as well as in the reclamation phases. Some features may be temporary, such as planted screening mounds which occur only during the operational phase. The Local Planning Authority will, where appropriate, require the creation of new landscape features using locally characteristic forms, materials, species and patterns to help mitigate impact, compensate for landscape features lost and absorb mineral workings, waste management sites and their reclamation into the landscape. These features should form an integral part of the design process and be related to the wider character of the landscape, rather than being used solely as a means of screening unsightly mineral or waste management activities. Examples of features which can contribute to the quality, character and local distinctiveness of an area include tree cover, hedgerows, watercourses, ponds, drystone walls and other built features. The Local Planning Authority will use planning conditions and/or planning obligations where appropriate to ensure the conservation, enhancement and long term management of landscape character and distinctiveness.
Areas of Outstanding Natural Beauty

POLICY 7

PROPOSALS FOR MINERALS OR MAJOR WASTE DEVELOPMENT WHICH WOULD AFFECT THE COTSWOLDS AREA OF OUTSTANDING NATURAL BEAUTY WILL BE SUBJECT TO THE MOST RIGOROUS EXAMINATION AND WILL NOT BE PERMITTED UNLESS THE DEVELOPMENT IS IN THE PUBLIC INTEREST, AND:

(A) ANY HARM TO THE NATURAL BEAUTY OF THE LANDSCAPE CAN BE MITIGATED TO KEEP THE IMPACT TO A MINIMUM; AND

(B) THERE IS A NEED FOR THE DEVELOPMENT IN TERMS OF NATIONAL CONSIDERATIONS OF MINERALS SUPPLY OR WASTE MANAGEMENT; AND

(C) THERE IS NO PRACTICABLE ALTERNATIVE SITE, AVAILABLE MINERAL SUPPLY, OR OTHER WAY TO MEET THE NEED; AND

(D) THE DEVELOPMENT WOULD NOT HAVE AN UNACCEPTABLE IMPACT ON THE LOCAL ECONOMY.

5.20 Areas of Outstanding Natural Beauty (AONBs) are nationally recognised landscapes, designated by the Countryside Commission under the National Parks and Access to the Countryside Act 1949. The Cotswolds AONB extends into the eastern fringes of South Gloucestershire. Within this AONB there are no active mineral workings or landfill sites.

5.21 The primary objective of AONB designation is to conserve the natural beauty of the landscape. Because of the significant impact that mineral and waste development may have on this natural beauty, it is considered that, where an AONB would be adversely affected by such development, it should only be allowed to proceed in exceptional circumstances. Government guidance requires all mineral applications which would affect an AONB to be subject to the most rigorous examination, and to demonstrate that the development, inter alia, would be in the public interest, before being allowed to proceed. Policy 7, therefore, applies not just to proposals within the Cotswolds AONB, but also to proposals which could affect the setting of this
Paragraph 71 of MPG6 sets out those matters, over and above the usual planning considerations, which any application affecting an AONB will be subject to. These include the issue of national need, alternative sources of supply or ways to meet the need, and the potential impact on the landscape of the AONB. Para 71 also requires consideration to be given to the impact that permitting, or refusing, a mineral development may have on the local economy. In rural areas the minerals industry is a source of employment, thereby having a positive impact on the local economy. However, it can also act in a negative way, for example, to discourage investment and employment in tourism because of the environmental impact that minerals development may have on the attractiveness of the area. As a result of a Ministerial Statement in June 2000, government guidance on AONBs requires major waste developments to be assessed against the same criteria as apply to major
development in National Parks. Para 4.5 of PPG7 is therefore relevant and replaces the last two sentences of para 4.8 of PPG7. This is, in effect, the same criteria as apply to mineral developments in AONBs.

5.22 Where proposals meet the criteria for development in the Cotswolds AONB, the Council will require measures to mitigate any impact on the natural beauty of the landscape. Where appropriate, the Council will also seek through negotiation to achieve improvements to the landscape around existing sites.

**Green Belt**

5.23 About half of the geographical area of South Gloucestershire falls within the Bristol and Bath Green Belt. Within the Plan area, four active mineral workings and ten sites with planning permission for landfill lie in this Green Belt.

**POLICY 8**

PROPOSALS FOR MINERALS DEVELOPMENT IN THE GREEN BELT WILL BE PERMITTED ONLY WHERE THE OPENNESS AND THE PURPOSE OF INCLUDING THE LAND WITHIN THE GREEN BELT WOULD NOT BE ADVERSELY AFFECTED AND:

(A) THE SITE WOULD BE OPERATED AND RESTORED TO HIGH ENVIRONMENTAL STANDARDS; OR

(B) IT IS FOR THE RE-USE OF BUILDINGS OF PERMANENT AND SUBSTANTIAL CONSTRUCTION, THE FORM, BULK AND GENERAL DESIGN OF WHICH ARE IN KEEPING WITH THEIR SURROUNDINGS AND THEY ARE CAPABLE OF CONVERSION WITHOUT MAJOR RECONSTRUCTION; OR

(C) IT IS FOR ESSENTIAL FACILITIES AT A MINERAL EXTRACTION SITE; AND

(D) IN ALL CASES THE VISUAL AMENITIES OF THE GREEN BELT WOULD NOT BE INJURED BY REASON OF SITING, DESIGN OR MATERIALS.

PROPOSALS SHOULD CONTRIBUTE, AS APPROPRIATE, TO THE ACHIEVEMENT OF GREEN BELT OBJECTIVES.
5.24 Minerals can only be worked where they occur and their distribution may, therefore, coincide with Green Belt designations. Government guidance (PPG2) indicates that mineral extraction need not be an inappropriate development in a Green Belt provided that high environmental standards are maintained and the site is well restored, although Paragraph 3.15 of PPG2 specifically states that the visual amenities of the Green Belt should not be injured by development proposals within or conspicuous from the Green Belt. The Planning Authority expects high environmental and restoration standards on all mineral sites irrespective of a Green Belt location and the policies in this Plan reflect this expectation. The criteria which would apply in testing the appropriateness of mineral development in the Green Belt include: scale and design of the proposal; visibility of plant, mineral activities and vehicle movements; the relationship of the site in the wider landscape context, both during the operational phase and at restoration; and the timescale of the development.

5.25 In addition, where mineral extraction in a Green Belt location is justified, it should as appropriate contribute to the achievement of the objectives for the positive use of land in Green Belts. These objectives are:

"- to provide opportunities for access to the open countryside for the urban population;
- to provide opportunities for outdoor sport and outdoor recreation near urban areas;
- to retain attractive landscapes, and enhance landscapes, near to where people live;
- to improve damaged and derelict land around towns;
- to secure nature conservation interest; and
- to retain land in agricultural, forestry and related uses.” (PPG2 para 1.6)

Such contributions would not be expected for proposals which are ancillary to mineral activities or which involve only minor development.

5.26 These objectives are reflected in the principles behind Government guidance on the reclamation of mineral workings and in Policies 28 and 29 of this Plan, although it is recognised that the ability of either Tytherington or Wick Quarry to achieve the objectives in paragraph 5.25 is constrained by the depth of the workings.
POLICY 9

PROPOSALS FOR WASTE DEVELOPMENT IN THE GREEN BELT WILL BE PERMITTED ONLY WHERE THE OPENNESS AND THE PURPOSE OF INCLUDING THE LAND WITHIN THE GREEN BELT WOULD NOT BE ADVERSELY AFFECTED AND:

(A) IT INVOLVES ENGINEERING OR OTHER OPERATIONS, OR A MATERIAL CHANGE IN THE USE OF LAND; OR

(B) IT IS FOR THE RE-USE OF BUILDINGS OF PERMANENT AND SUBSTANTIAL CONSTRUCTION, THE FORM, BULK AND GENERAL DESIGN OF WHICH ARE IN KEEPING WITH THEIR SURROUNDINGS AND THEY ARE CAPABLE OF CONVERSION WITHOUT MAJOR RECONSTRUCTION; OR
(C) IT WOULD ENABLE A HIGH STANDARD OF RESTORATION TO BE ACHIEVED TO A MINERAL VOID OR OTHER DAMAGED OR DERELICT LAND; OR

(D) IT IS FOR ESSENTIAL FACILITIES AT A WASTE MANAGEMENT SITE; AND

(E) IN ALL CASES THE VISUAL AMENITIES OF THE GREEN BELT WOULD NOT BE INJURED BY REASON OF SITING, DESIGN OR MATERIALS.

PROPOSALS SHOULD CONTRIBUTE, AS APPROPRIATE, TO THE ACHIEVEMENT OF GREEN BELT OBJECTIVES.

5.27 In order to meet the challenging targets for both increased reuse, recycling and recovery of waste and diversion from landfill, as discussed in Chapter 9, a wide range of new waste management facilities will be required. The ‘proximity principle’ requires that these new facilities should be as close as possible to the main sources of the waste but, in an authority with an extensive Green Belt, this leads to conflicting policy objectives.

5.28 PPG10, para A51, identifies the broad types of location which may be suitable for waste management facilities. Among these, existing quarries, landfill sites, existing or redundant sites or buildings, are locations not inconsistent with Green Belt policy.

5.29 As waste management technologies develop, the opportunities to reuse existing buildings imaginatively may increase where these buildings are in the Green Belt. PPG2 paras 3.7 - 3.10 give detailed guidance about the circumstances in which such uses are not inappropriate. Providing the criteria and the other policies of this Plan are met, particularly those relating to transportation and issues of amenity arising from ancillary activities such as material storage, such proposals could add significantly to the range of waste management facilities available.

5.30 Many waste management facilities, particularly those which involve the deposit of waste on land, represent a material change in the use of land for the duration of the development. Paragraph 3.12 of PPG2 states that such developments are an inappropriate use of land in the Green Belt unless they maintain openness and do not conflict with the purposes of including land in the Green Belt. Where a proposal involves land which is already under development and the openness of the Green
Belt has already been prejudiced, or where the proposal would assist in improving damaged or derelict land, then it may constitute appropriate development in the Green Belt.

5.31 On greenfield sites, however, appeal decisions have confirmed that in assessing a development proposal, it is the operational phase of the development as well as the final landform which is critical in assessing the impact of the proposal on the openness of the Green Belt, although it is recognised that the extent of this impact will depend upon the scale, duration and phasing of the proposed operation. The Planning Authority takes the view that any waste management facility will almost always involve a certain amount of built development (site office, weighbridge, washrooms, etc), as well as plant and machinery activity, lorry movements on the highway network through the Green Belt, waste storage (albeit maybe only temporary) and soil stockpiles. Such activities will continue throughout the year and throughout the working day at varying levels of intensity. The overall level of activity associated with waste management facilities in a greenfield location means that for the duration of the development the site ceases to be ‘countryside’. Such development is therefore considered to conflict with the purpose of maintaining the openness of the Green Belt. Consequently, such proposals will be treated as inappropriate development in a Green Belt location. In such situations, proposals will be required to demonstrate ‘very special circumstances’ to justify a Green Belt location.

5.32 PPG2 requires that large-scale development should contribute to the achievement of the objectives for the positive use of land in Green Belts. As with mineral development, such contributions would not be expected for proposals which are ancillary to waste management facilities or which involve only minor development.

Coastal Zone

**POLICY 10**

PROPOSALS FOR MINERALS OR WASTE DEVELOPMENT WITHIN THE UNDEVELOPED COASTAL ZONE WILL BE PERMITTED ONLY WHERE:

(A) A COASTAL LOCATION IS REQUIRED; AND

(B) THE DEVELOPMENT CANNOT BE ACCOMMODATED ELSEWHERE.

5.33 South Gloucestershire has identified the Severn Estuary and the adjoining low lying land formed from deposits of estuarine silt as a Coastal Zone, in recognition of the
importance of the area in terms of its natural and historic landscape and nature conservation value. The Coastal Zone includes existing settlements, a major area granted planning permission in 1957 at Severnside, and a defined employment area within the major area. These areas are defined in the South Gloucestershire Local Plan. Planning policy for the Coastal Zone is set out in PPG20 ‘Coastal Planning’, paras 3.11-3.13 of which are of particular relevance to minerals development. Due to the fragile nature of the coastal environment, Government guidance seeks to protect the undeveloped areas of the zone from development which does not require a coastal location. PPG20 recognises that mineral extraction may require a coastal location, as minerals can only be worked where they naturally occur, and requires that such development is undertaken with considerable care to reflect the sensitivity of the coastal area. Within this zone it is considered unlikely that opportunities will arise for minerals or waste development to reclaim derelict land.
**Forest of Avon**

**POLICY 11**

**PROPOSALS FOR MINERALS OR WASTE DEVELOPMENT WITHIN THE FOREST OF AVON WILL BE EXPECTED TO:**

(A) RESPECT THE DEVELOPING WOODLAND SETTING;

(B) NOT CONFLICT WITH COMMUNITY FOREST OBJECTIVES;

(C) NOT PREJUDICE FOREST OF AVON PROJECTS; AND

(D) WHERE APPROPRIATE, CONTRIBUTE TOWARDS THE IMPLEMENTATION OF FOREST OF AVON OBJECTIVES.

5.34 The Forest of Avon is part of a national initiative to create community forests “to improve the quality of the urban fringe, and enable more people to enjoy the countryside close to home” (PPG7 Annex D para D1). The Forest of Avon Plan has been adopted by South Gloucestershire. The Plan gives information concerning the strategy and objectives for local areas and woodland cover targets. The Forest Plan represents a material consideration for determining proposals within the Forest area. Development proposals should respect the woodland setting. Government guidance (particularly MPG7) recognises the opportunities that mineral sites, in particular, provide for contributing to community forest initiatives. Development which seeks to contribute to the establishment of the Forest of Avon must comply with the other policies within the Minerals and Waste Local Plan. Planning permission for inappropriate developments will not be granted simply because applicants are prepared to plant trees or otherwise assist with the implementation of the Forest Plan.

5.35 It is envisaged that the aims and objectives of the Forest Plan will be achieved through agreement and negotiation with land owners either on a voluntary basis or through planning obligations particularly in respect of additional tree planting, public access and new wildlife habitat creation. A number of existing mineral and waste sites lie within the Forest of Avon. Where appropriate, the Local Planning Authority will seek to negotiate contributions to the establishment of the Forest of Avon in mineral and waste development proposals and over the opportunity for such contributions to be made in advance of working.
5.36 There is a national and international framework of conservation and planning legislation that safeguards the natural environment. This framework and its application are set out in PPG9. Wildlife is not restricted to designated and protected fragments of semi-natural habitat such as nature reserves, SSSI’s and Sites of Nature Conservation Interest, it occurs throughout the countryside, coast and built areas of South Gloucestershire.

5.37 The fragments benefiting from statutory and non-statutory protection do so on a hierarchical scale reflecting the different levels of importance at the international, national and local scale. These different levels need to be reflected in appropriate policies.
5.38 The potential for damage to nature conservation from mineral activities is high and in most cases this will be damage to a finite resource. Mineral activity does, however, also offer nature conservation opportunities and assist in offering biodiversity opportunities. Nature conservation should be seen as an integral part of land use management. The Local Planning Authority will expect mineral and waste development proposals to avoid where possible, or minimise where avoidance is not possible, the impact to nature conservation interests. Where development is permitted the Local Planning Authority will use planning conditions and legal agreements to secure the measures necessary to ensure that any impact is minimised. In addition site management and restoration will be required to make a positive contribution to the biodiversity of the area (See Policy 29). The principle is to plan for no net loss of biodiversity, consistent with sustainability objectives.

(A) International Sites

POLICY 12

PROPOSALS FOR MINERALS OR WASTE DEVELOPMENT WHICH WOULD DIRECTLY OR INDIRECTLY ADVERSELY AFFECT THE INTEGRITY OF A POTENTIAL OR CLASSIFIED SPECIAL PROTECTION AREA, A CANDIDATE OR DESIGNATED SPECIAL AREA OF CONSERVATION, OR A RAMSAR SITE, WILL NOT BE PERMITTED.

5.39 Wetlands of international importance are designated as Ramsar sites under the Ramsar Convention. Special Protection Areas (SPAs) are classified under the EC Directive on the Conservation of Wild Birds and Special Areas of Conservation (SAC) are designated under the EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive).

5.40 Within South Gloucestershire the Severn Estuary is classified as a Ramsar site, an SPA and a potential SAC (pSAC). Proposals for minerals and waste development which may affect an existing or proposed international site will be subject to the most rigorous examination in accordance with the guidance set out in Annex C of PPG9. Where the effect is likely to be significant, proposals will normally be called in by the Secretary of State. Annex C of PPG9 advises (as depicted in the box on page 18 of the Annex) that the planning authority may agree to a proposal if there are no alternative solutions to a proposed development and the proposal must be carried out for imperative reasons of overriding public interest. Where the site concerned hosts a
priority natural habitat type or a priority species those reasons must be primarily relating to human health, public safety or beneficial consequences of primary importance to the environment. The Severn Estuary designations predominantly cover the estuary waters, but do include land close to and along the shoreline. Given the nature and location of these designations, minerals or waste development proposals which conflict with Policy 12 would be very unlikely to satisfy the provisions set out in Annex C. Furthermore, the area is susceptible to flooding (Policy 21) and also falls within the Coastal Zone (Policy 10).

(B) National Sites

POLICY 13
PROPOSALS FOR MINERALS OR WASTE DEVELOPMENT WHICH WOULD DIRECTLY OR INDIRECTLY HAVE AN ADVERSE EFFECT ON THE NATURE CONSERVATION INTERESTS OF A NATIONAL NATURE RESERVE OR SITE OF SPECIAL SCIENTIFIC INTEREST WILL BE PERMITTED ONLY WHERE THERE ARE MATERIAL FACTORS SUFFICIENT TO OVERRIDE NATURE CONSERVATION CONSIDERATIONS. IN SUCH CIRCUMSTANCES, APPROPRIATE MITIGATION OR COMPENSATORY MEASURES WILL BE REQUIRED TO MINIMISE THE DAMAGE.

5.41 Sites of Special Scientific Interest (SSSIs) are the best examples of our national heritage of wildlife habitats, geological features and landforms. National Nature Reserves are SSSIs where management for nature conservation is the primary objective. Ramsar sites, SPAs and SACs are also SSSIs under national legislation. There are 22 SSSIs within South Gloucestershire, several of which are geological SSSIs at active quarries. Development which would adversely affect the nature conservation interest of an SSSI will be resisted and only allowed in exceptional circumstances. An adverse effect may be either direct physical damage to an SSSI, or a loss of value as a consequence of the deflection of species that exploit the site on an occasional basis, such as migratory birds or fish.
(C) Local Sites and the South Gloucestershire network

POLICY 14

PROPOSALS FOR MINERALS OR WASTE DEVELOPMENT WHICH WOULD CAUSE DAMAGE TO THE NATURE CONSERVATION VALUE OF, EITHER A SITE OF NATURE CONSERVATION INTEREST, OR SOUTH GLOUCESTERSHIRE’S NETWORK OF LOCAL NATURE CONSERVATION AND GEOLOGICAL INTERESTS, WILL BE PERMITTED ONLY WHERE THE IMPORTANCE OF THE DEVELOPMENT OUTWEIGHS THE VALUE OF THE SUBSTANTIVE INTERESTS PRESENT. WHERE DEVELOPMENT IS TO PROCEED, APPROPRIATE MITIGATION OR COMPENSATORY MEASURES WILL BE REQUIRED TO MINIMISE THE IMPACT OF THE DEVELOPMENT ON THE NATURE CONSERVATION INTEREST.

5.42 The sites benefiting from statutory protection in Policy 13 do not represent the full range and extent of remaining natural and semi-natural habitat found within South Gloucestershire. Many of these remaining habitat areas, including regionally important geological and geomorphological sites, are designated against adopted fixed criteria by South Gloucestershire Council as Sites of Nature Conservation Interest. In certain cases these sites have also been designated as Local Nature Reserves and Community Nature Areas where there is an opportunity for the site to make a contribution to education and involve the local community. Ancient semi-natural woodland represents an irreplaceable natural resource of historical, cultural and biodiversity importance.

5.43 The biodiversity of South Gloucestershire is dependent both on the protection of isolated sites of nature conservation value, and on the linear corridors which link some of these sites to allow the necessary dispersal, migration and genetic exchange of many wild plants and animals. Together the individual sites and the linking corridors represent a network of nature conservation and geological interests. Further fragmentation of this network of sites, “stepping stones” and linear habitats will lead to species and habitat decline and a loss of biodiversity.

5.44 The Local Planning Authority will seek to ensure that any proposal for development within or adjacent to a wildlife corridor substantially maintains the corridor effect. River corridors and their associated flood plain often fulfil this vital role. Much of South Gloucestershire is subject to existing supplementary planning guidance on
recommended practices regarding wildlife corridors, which will be reviewed in due
course to include advice on the identification, protection, enhancement and
management of wildlife corridors.

5.45 Minerals and waste development that results in a loss of land further fragments and
isolates designated nature conservation sites and, thereby, restricts the migration,
dispersal and genetic exchange of species. The Local Planning Authority maintains
an environmental database at the Bristol/Avon Environmental Records Centre. From
this database, and from the list of species identified as being of conservation concern
in the UK Biodiversity Action Plan, a list of notable species has been produced.
South Gloucestershire Council has begun the process of developing a Local
Biodiversity Action Plan to deliver national and regional action plan targets at a local
level and to promote action for species and habitats locally characteristic. Where
appropriate, the Council will take the opportunity through minerals and waste
development proposals to achieve progress towards the biodiversity targets set out in
Biodiversity Action Plans.

(D) Protected Species

POLICY 15

PROPOSALS FOR MINERALS OR WASTE DEVELOPMENT WHICH WOULD
CAUSE HARM TO A PROTECTED SPECIES OR ITS HABITAT WILL NOT BE
PERMITTED.

5.46 Proposals for minerals and waste development may have adverse effects on
protected species listed in Schedules 1, 5 and 8 of the Wildlife and Countryside Act
1981, as amended, and should only be permitted where harm to the species can be
avoided. To avoid such harm, the Local Planning Authority will consider the use of
conditions or planning obligations to facilitate the survival of individual members of
the species which would be affected by the proposal, to reduce disturbance to a
minimum, and to provide adequate alternative habitats to sustain at least the current
levels of populations affected.

5.47 Where the Local Planning Authority has reasonable grounds for believing a site is
frequented by a protected species, it will require the applicant to undertake a survey
to establish its presence on site, or that of any other protected species, and to detail
the measures proposed for its welfare. Where these are inadequate planning
permission will be refused. Opportunities may be created through development to reverse some of the trends towards fragmentation and isolation and to enhance the natural environment using, where necessary, planning conditions and obligations.

**Historic Environment**

**POLICY 16**

**PROPOSALS FOR MINERALS OR WASTE DEVELOPMENT WILL NOT BE PERMITTED UNLESS THEY WOULD:**

(A) PRESERVE THE CHARACTER, APPEARANCE, HISTORIC/ARCHITECTURAL VALUE OR SETTING OF A LISTED BUILDING;

(B) PRESERVE OR ENHANCE THE CHARACTER, APPEARANCE OR SETTING OF A CONSERVATION AREA;

(C) NOT ADVERSELY AFFECT AN HISTORIC PARK OR GARDEN, OR ITS SETTING, REGISTERED BY ENGLISH HERITAGE; AND

(D) NOT ADVERSELY AFFECT A REGISTERED BATTLEFIELD.

WHERE DEVELOPMENT AFFECTS ANY OF THE ABOVE HISTORIC FEATURES, THE LOCAL PLANNING AUTHORITY WILL EXPECT DETAILED MEASURES FOR THEIR PROTECTION OR ENHANCEMENT TO BE INCORPORATED IN THE PROPOSALS.

**POLICY 17**

**PROPOSALS FOR MINERALS OR WASTE DEVELOPMENT WHICH WOULD ADVERSELY AFFECT THOSE UNLISTED BUILDINGS OR FEATURES OF LOCAL ARCHITECTURAL OR HISTORIC IMPORTANCE WHICH CONTRIBUTE TO THE CHARACTER AND DISTINCTIVENESS OF SOUTH GLOUCESTERSHIRE, OR THEIR SETTINGS, WILL BE PERMITTED ONLY WHERE THE IMPORTANCE OF THE DEVELOPMENT OUTWEIGHS THE HISTORIC VALUE OF THE BUILDING OR FEATURE TO THE LOCAL AREA. IN SUCH CASES, AND WHERE POSSIBLE, APPROPRIATE MEASURES WILL BE REQUIRED TO MITIGATE THE IMPACT OF THE DEVELOPMENT ON THE BUILDING OR FEATURE.
5.48 The historic environment is central to our cultural heritage and national identity. However, it cannot be preserved unchanged. Government guidance (PPG15), therefore, seeks to protect those aspects of the historic environment which are of most value. These features which are considered to be nationally or regionally important are identified and classified as such.

5.49 Listed Buildings and Conservation Areas are statutory designations comprising those examples of buildings/areas of special architectural or historic interest worthy of protection. Planning authorities are required to have special regard to the effect that any minerals or waste development would have on these designations and their settings.

5.50 English Heritage has compiled registers of parks and gardens of special historic interest and historic battlefields. In addition there are other parks or gardens of local importance which make a valuable contribution to the heritage, environment and local distinctiveness of the area. They are all entered on the Sites and Monuments Record and as such are subject to the procedures outlined for the treatment of archaeological sites under Policy 18. No additional statutory controls exist within historic parks and gardens or registered battlefields but the effect of a proposed development on these areas is a material consideration in determining planning applications. Where development in the vicinity of historic parks, gardens or battlefields is proposed, the Local Planning Authority will expect proposals to respect the sensitive nature of these sites.

5.51 There are many buildings and features of historic interest which do not meet the limited criteria for inclusion on the national List of Buildings of Special Architectural or Historic Interest and do not, therefore, enjoy statutory protection, but which are of high local importance. These make a considerable contribution to the character and distinctiveness of South Gloucestershire. In accordance with para 6.16 of PPG15, the Council will seek the protection of these buildings and features, including their settings. Many of these buildings are in conservation areas and on the Sites and Monuments Record (SMR). A List of Locally Important Buildings is being compiled by the Council which will subsequently be adopted as Supplementary Planning Guidance. Policy 17 will apply to the buildings and features on this List. As part of a series of initiatives to characterise the environment of South Gloucestershire, the Council has undertaken an Historic Landscape Survey. This will be used to inform the development process.
**Archaeology**

**POLICY 18**

PROPOSALS FOR MINERALS OR WASTE DEVELOPMENT WHICH WOULD AFFECT A SITE OF NATIONAL ARCHAEOLOGICAL IMPORTANCE, WHETHER SCHEDULED OR NOT, WILL NOT BE PERMITTED WHERE:

(A) THE SITE WOULD BE SIGNIFICANTLY ALTERED OR DAMAGED; OR

(B) THERE WOULD BE A SIGNIFICANT IMPACT ON THE SETTING OF VISIBLE REMAINS.

WHERE MINERALS OR WASTE DEVELOPMENT WOULD AFFECT OTHER ARCHAEOLOGICAL SITES RECORDED ON THE SITES AND MONUMENTS RECORD, THE LOCAL PLANNING AUTHORITY WILL SEEK TO ENSURE PHYSICAL PRESERVATION IN SITU, OR EXCAVATION AND RECORDING, AS APPROPRIATE, HAVING REGARD TO THE INTRINSIC IMPORTANCE OF THE ARCHAEOLOGICAL REMAINS AND TO THE NEED FOR THE DEVELOPMENT.

5.52 Archaeological remains are a finite and non-renewable resource. Mineral extraction can present a particular threat to archaeological sites and landscapes. Not all remains are known, however, and the existence of others is only suspected. Details of all known archaeological remains within South Gloucestershire are recorded on the Sites and Monuments Record (SMR). Applicants will be expected to consult this to find out whether their development proposal is located on or adjacent to any known site or landscape of archaeological interest or high archaeological potential.

5.53 Scheduled Ancient Monuments represent a selection of nationally important archaeological remains and enjoy statutory protection. There are currently 30 of these monuments in South Gloucestershire and it is to be expected that others will be added to the Schedule during the Plan period.

5.54 Government guidance in PPG16 strikes a balance between development and preservation of archaeological remains. PPG16 recognises the value of preserving in situ archaeological remains and this should be respected by applicants for both minerals and waste development. Nationally important remains, whether scheduled or not, should be protected from development which would affect them. For
regional and local sites, the intrinsic importance of the known remains has to be balanced against other considerations, including need for the mineral. Where physical preservation in situ is not feasible or justified, excavation and preservation by record should be carried out prior to any minerals or waste development commencing. Preservation by record is however the second best option, as it results in the destruction of the archaeological remains, and should not be used as justification for the development.

5.55 Where archaeological features are likely to be present, an archaeological assessment or field evaluation will be required to enable their archaeological significance to be determined prior to a planning decision being made. The Local Planning Authority will, therefore, require planning applications for minerals or waste development affecting sites or landscapes of archaeological interest, or of high archaeological potential, to be accompanied by an archaeological assessment and proposed mitigation measures. The applicant is responsible for meeting the costs of evaluation and any subsequent programme of archaeological works. Applicants will be expected to agree a detailed method statement with the Council’s Archaeological Officer prior to undertaking an evaluation.

**Agricultural Land**

**POLICY 19**

PROPOSALS FOR MINERALS OR WASTE DEVELOPMENT ON THE BEST AND MOST VERSATILE AGRICULTURAL LAND WILL BE PERMITTED WHERE THE LONGER TERM POTENTIAL OF THE LAND AS A HIGH QUALITY AGRICULTURAL RESOURCE WOULD NOT BE PREJUDICED.

PROPOSALS FOR MINERALS OR WASTE DEVELOPMENT WHICH WOULD RESULT IN THE IRREVERSIBLE LOSS OF BEST AND MOST VERSATILE AGRICULTURAL LAND WILL NOT BE PERMITTED, UNLESS IT CAN BE DEMONSTRATED THAT THERE IS AN OVERRIDING NEED FOR THE DEVELOPMENT; AND EITHER

(A) THERE IS INSUFFICIENT LAND OF A LOWER GRADE AVAILABLE; OR

(B) OTHER SUSTAINABILITY CONSIDERATIONS AFFECTING THE AVAILABLE LOWER GRADE LAND OUTWEIGH THE AGRICULTURAL CONSIDERATIONS.
The best and most versatile agricultural land is defined as Grades 1, 2 and 3a in DEFRA’s (formerly MAFF’s) Agricultural Land Classification System.

Mineral or waste development which affects best and most versatile agricultural land is only acceptable where the land will be restored to a condition which preserves the land’s potential to be used as best and most versatile agricultural land. This allows for restoration to non-agricultural uses, provided that high standards of reclamation are achieved to maintain the longer term quality and potential of the land as an agricultural resource.

Exceptionally, proposals for minerals or waste development on best and most versatile agricultural land may be permitted, if it can be demonstrated that there is an overriding need for the development, and either sufficient land of lower grades is unavailable, or other sustainability considerations affecting the lower grade land suggest otherwise. Such considerations may include its importance for biodiversity, landscape character and quality, its amenity value or heritage interest, accessibility to infrastructure, workforce and markets, and the protection of natural resources, including soil quality (PPG7 para 2.17).

Water Resources

POLICY 20
PROPOSALS FOR MINERALS OR WASTE DEVELOPMENT WILL BE PERMITTED ONLY WHERE THERE WOULD NOT BE AN UNACCEPTABLE EFFECT ON WATER QUANTITY AND QUALITY.

POLICY 21
PROPOSALS FOR MINERALS OR WASTE DEVELOPMENT WILL BE PERMITTED ONLY WHERE THEY WILL NOT:

(A) REDUCE THE CAPACITY OF THE FLOOD PLAIN;

(B) INCREASE THE RISK OF FLOODING OFF-SITE; OR

(C) BE, THEMSELVES, AT AN UNACCEPTABLE RISK OF FLOODING;

UNLESS APPROPRIATE ENVIRONMENTALLY ACCEPTABLE MITIGATION MEASURES CAN BE SECURED.
5.59 Mineral development and certain waste management operations can have a number of harmful effects on the water environment. There are risks of pollution to surface and groundwater from contaminated surface run-off, fuel spillage, leachate and other incidents. Responsibility for policing and protecting the quantity and quality of water rests with the Environment Agency. They advise local planning authorities, inter alia, on the potential risk of development proposals to surface and groundwater resources, recommending remedial measures where appropriate. The Environment Agency and South Gloucestershire Council have jointly produced guidance on encouraging the use of Sustainable Drainage Systems (SuDS) to reduce the impact of surface run-off on the water environment. This will be adopted as supplementary planning guidance in due course.

5.60 Limestone quarrying both above and below the water table can have a significant impact on the groundwater regime. Stone removed from the unsaturated zone above the water table affects underground water storage capacity causing higher flood peaks and lower dry weather flows in adjacent rivers. Also lost is the defence against pollution provided by the oxygenation, nutrient removal, bacterial breakdown and filtration that takes place as water infiltrates the unsaturated zone. Dewatering of workings below the water table will result in local lowering of that water table, a possible consequence being the reduction in flow to springs and streams with consequent implications for existing ground and surface water abstractions and natural habitats. It is possible that changes in the water table could derogate public water sources. Also, for example, minor changes to the water table can have a serious effect on the health of mature trees, particularly oaks, which are a common species in the South Gloucestershire countryside.

5.61 The Jurassic Limestone and, to a lesser degree, the Carboniferous Limestone in South Gloucestershire are identified by the Environment Agency as major aquifers. Mineral extraction and restoration and waste management operations may also increase the risk of flooding to adjacent land.

5.62 Applications for new quarries, or for the extension or deepening of existing quarries, will be expected to provide information on the extent to which the local hydrogeology will be affected by the proposed working. Arrangements for the monitoring of changes in groundwater caused by quarrying operations will be required, together with the mitigation measures necessary to ensure that adverse impacts will be avoided. Monitoring of flow regimes in nearby watercourses and their associated aquatic flora and fauna may also be required.
5.63 Landfill, and other methods of final disposal of waste to land, represent a potential threat to the water environment. Even with the best designed and operated sites there will be a degree of risk of groundwater pollution and, in certain cases, the degree of risk may prove unacceptable. In order to minimise any potential risk, the applicant/operator will be required to demonstrate a clear understanding of the hydrogeological conditions within and around the disposal site. Unless it can be demonstrated as a result of a thorough hydrogeological assessment that it is not necessary, the applicant will be required to undertake controlled monitoring of groundwater quality prior to the submission of a planning application, to establish the necessary baseline information for a risk assessment. Such monitoring will also be required during and after disposal operations. Where appropriate mitigation measures will be required to avoid potential adverse effects.

5.64 Development will not be permitted where there is an unacceptable risk of flooding, either affecting the site of the development or elsewhere. Operations which result in the raising of ground level may increase the possibility of flooding within the floodplain, by increasing the volume of surface run-off, by reducing the capacity of the floodplain to store water and by impeding the flow of flood water. Landfill development in flood risk areas may be subject to erosion which would prejudice the long-term stability of the site.
Section 2
Operational practices

Aim

5.65 The overall aim of the policies in this section is:-

To use the most environmentally acceptable standards in the operation and reclamation of mineral sites and waste management facilities so as to safeguard and, wherever possible, improve the environment and the quality of life for South Gloucestershire’s residents.

Objectives

5.66 The Local Plan objectives in respect of operational practices are:

(1) To protect and enhance public rights of way and access to the countryside for informal recreation and, where appropriate, as transportation routes;

(2) To protect roads and local communities from the impact of heavy goods traffic, including encouraging alternative modes of transport wherever appropriate;

(3) To protect residential and rural amenities from the adverse effects of visual intrusion, blasting, dust and noise;

(4) To ensure programmes of working and restoration are to a high standard, provide for the early restoration of the unity and character of the landscape, secure beneficial afteruses and, where appropriate and consistent with other considerations, provide opportunities for public access and recreation.

Residential/Local Amenity

POLICY 22

PROPOSALS FOR MINERALS OR WASTE DEVELOPMENT WILL BE PERMITTED ONLY WHERE THE PROPOSAL WILL NOT HAVE AN UNACCEPTABLE EFFECT ON NEARBY PROPERTIES AND LAND USES BY WAY OF VISUAL INTRUSION, DUST, NOISE, BLASTING, VIBRATION, FUMES, SMELL, LITTER, VERMIN OR BIRDS.

5.67 By their very nature mineral extraction and waste management operations, particularly landfill, can have a significant effect on residential and rural amenity. The major visually intrusive features are likely to be the operational and processing plant, stockpiles and vehicular traffic rather than the excavation/disposal area itself. Dust, steam, smoke, noise, odour and fumes contribute to this intrusion, as well as litter at waste disposal sites.
5.68 It is important that the design and layout of proposals minimises visual impact and
disturbance and integrates the development into the surrounding landscape. The
proximity of dwellings and other occupied buildings and the degree of screening are
relevant in determining the effect on visual amenity.

5.69 Although mineral and waste developments can have a significant impact on
residential and rural amenity, this impact may not be restricted solely to the winning
and working of the mineral or the management of the waste. The process of
restoring a site may have a significant impact itself and prolong the overall impact of
development, for example, through the replacement of overburden and soils or, in
the case of a mineral site, through the importation of fill material. Where the choice
of restoration of a mineral void is by infilling with imported material, this should
form an integral part of any application, to enable a complete assessment of the
acceptability of the proposed development to be made at the outset.

5.70 In respect of operating standards, the Environmental Protection Act 1990 imposes
statutory controls on some environmental factors. Although full consideration must
be given to the effects of mineral working and waste management operations on
local amenity in determining a planning application, PPG23 advises that Local
Planning Authorities should not seek to duplicate other statutory means of control.
MPG11 provides detailed guidance on the control of noise at mineral sites, which is
also relevant to landfill sites (PPG24).

5.71 Mineral workings and waste management operations can give rise to considerable
noise, which will be a major consideration where workings are close to dwellings or
other noise sensitive properties. There are measures which can be adopted to control
and reduce noise levels, and noise control should be seen as an integral part of the
design of the site.

5.72 Earth mounding, advance planting and the location of plant and haul roads within
the site are measures which can be included in site design to reduce noise. Regular
maintenance, the use of cladding, proper silencing, the use of conveyors and
sensitive alarm beepers are examples of noise reduction at source. Monitoring may
be required to ensure specified levels are not exceeded.
5.73 Dust may be a problem at sites, particularly in adverse weather conditions. As well as being unsightly, dust accumulations on vegetation, particularly trees and hedgerows, can have a deleterious effect on their health. Processing of materials and the movement of materials both on and off-site are the main generators of dust. On-going measures to control dust during the operational phases are, therefore, essential for both visual and environmental reasons. Appropriate mitigation measures include spraying stockpiles and roadways, hard surfacing internal roads, covers on conveyors, sheeting of lorries, and grass seeding of earth mounds.

5.74 Litter, particularly windblown, can be a serious problem on waste management sites. Control of litter should, therefore, be incorporated in site operation procedures. Measures to control litter include covering working areas at night, erecting screens to trap litter, frequent emptying of small scale facilities such as container banks, and the netting/sheeting of lorries. Waste disposal sites in particular can also attract vermin and birds although control of vermin, as they are a health hazard, is usually covered by the waste management licence. Where birds congregate in large numbers, they may be a nuisance to nearby properties and land, as well as posing a threat to aircraft in the vicinity of airfields. Bird control measures may be necessary. It must also be noted that disease can be picked up by birds visiting waste disposal sites putting them at risk and the environment since the disease producing organisms may be transferred by the birds to other locations. Therefore intensive management measures must be put in place to reduce these hazards to a minimum.

5.75 Although advances in technology and practice have enabled greater control over blasting and its associated environmental effects, it remains a sensitive issue for local residents. The limit of ground vibration caused by a blast, and the subsequent monitoring of ground vibration following a blast, can be controlled by planning conditions.

5.76 The combination of noise disturbance by plant and vehicles, including early morning arrivals at the site entrance, dust emissions and potentially intrusive lighting emphasises the need for control of the hours of operation of a site. Economic or technical reasons may require certain plant processing outside the general hours of working. However, applicants must demonstrate the special circumstances associated with their application and the mitigation methods to be used to limit any adverse impacts. Coating plants, in particular, due to the perishable nature of the product and the markets they supply tend to require very early morning starts or overnight working.
5.77 Residential and rural amenity may also be affected by changes to the water environment, most specifically through pollution/contamination and changes to the water table. Traffic associated with a minerals and waste disposal site, particularly heavy goods vehicles, may affect local amenity not just close to the point of access but some distance from the actual site. Although the impact of development on these aspects is specifically addressed by other policies there may be associated amenity issues to be taken into account.

Public Rights of Way

POLICY 23

PROPOSALS FOR MINERALS OR WASTE DEVELOPMENT WHICH WOULD PREJUDICE THE UTILITY OR AMENITY OF A PUBLIC RIGHT OF WAY WILL ONLY BE PERMITTED SUBJECT TO SATISFACTORY PROVISION BEING MADE IN THE APPLICATION, EITHER FOR PROTECTING AND ENHANCING THE AMENITY AND SETTING OF THE EXISTING RIGHT OF WAY, OR FOR PROVIDING SIGNED ALTERNATIVE ARRANGEMENTS OF SIMILAR QUALITY FOR ALL USERS BOTH DURING AND AFTER WORKING.

DEVELOPMENT PROPOSALS ADJACENT TO A RECREATIONAL ROUTE WILL BE REQUIRED TO PROVIDE MITIGATION MEASURES WHICH REFLECT THE IMPORTANCE OF THESE ROUTES IN THE PUBLIC RIGHTS OF WAY NETWORK.

5.78 The public rights of way network operates both as a means of accessing and enjoying the countryside and as a pedestrian transport link between other land uses. It is therefore important that this network and the public using it are protected from mineral and waste management activities. Mineral and waste activities can affect both the routing of a public right of way and the setting. The setting of a public right of way at a distance from a working may be adversely affected by the visible nature of the proposed activity when viewed from the right of way. South Gloucestershire Council has identified a number of strategic recreational routes which link the urban areas with the open countryside. Those identified to date are The Frome Valley Walkway, The Cotswold Way, The Jubilee Way, The Severn Way, The Yate-Mangotsfield Cycleway, The Bristol-Bath Railway Path, the Henbury Trym Walkway, The Dramway Footpath, The Monarch’s Way, The Round Avon Rides, The Community Forest Path, The Avon Walkway and The Avon Towpath. The Council will look to developers to safeguard these routes in their development proposals and, depending on the proposed afteruse, to incorporate access to these routes at the reclamation stage.
5.79 While specific provision for stopping up or diversion, either permanently or
temporarily, is provided in the Highways Act 1980 and the Town and Country
Planning Act 1990, the impact of a proposed mineral or waste development on a
public right of way is a material planning consideration. Where public rights of way
are within, abut or are adjacent to a minerals or waste site, operators will be required
to provide the necessary safeguards to protect existing users and to provide, as
appropriate, alternative arrangements which segregate all classes of user from
activities. Where appropriate, reinstatement of the original route of the right of way
will be required following restoration of the mineral working or a waste disposal site.
Early discussions with officers to determine the best course of action, in accordance
with Government guidance in DoE Circular 2/93, is recommended.

Bird Strike Hazards and Aviation Safety

5.80 Developments which are likely to attract large numbers of birds might endanger civil
and military aircraft if they are located within the vicinity of airfields and
appropriate measures are not taken to minimise the risk of bird strike. Circular 2/92
‘Safeguarding Aerodromes, Technical Sites and Explosives Storage Areas: Town and
Country Planning (Aerodromes and Technical Sites) Direction 1992’ identifies
proposals for mineral extraction and the treatment and disposal of commercial and
household wastes as examples of such development.

5.81 Waste management sites can attract birds, particularly gulls, in large numbers.
They will come to the site in search of food, and good management practice in
combination with deterrent measures is often necessary. Restoration of mineral voids
to large water bodies can also prove an attraction to birds and careful configuration
and screening may be necessary. Where restoration of minerals and waste sites
involves tree planting, species choice is important in the near vicinity of airfields as
height can pose a danger to aircraft taking off and landing.

5.82 Two airfield safety zones (Colerne and Filton) affect South Gloucestershire and the
Civil Aviation Authority and Ministry of Defence will be consulted as appropriate.

Landfill Gas

5.83 Any site which is permitted under Policy 42 for the receipt of biodegradable wastes
will have the potential to generate landfill gas (whose principle constituents are
methane and carbon dioxide). This is recognised as a powerful greenhouse gas and,
under current and emerging legislation and guidance, passive venting of this gas will no longer be permitted. The gas either has to be burnt or, if it is produced in sufficient quantities, recovered to produce energy, usually in the form of electricity for the national grid. Open flaring of landfill gas will not now be permitted by the Environment Agency. Closed flares and energy recovery facilities will be prominent features in the landscape for many years after the closure of the site for the receipt of wastes. The Local Planning Authority will wish therefore to consider the design and siting of the landfill gas management measures carefully at the planning application stage.

**Transport**

(A) Traffic Impact

POLICY 24

PROPOSALS FOR MINERALS OR WASTE DEVELOPMENT WILL BE PERMITTED ONLY WHERE:

(A) THE USE OF EXISTING PEDESTRIAN AND CYCLE ROUTES WOULD NOT BE PREJUDICED;

(B) ANY TRAFFIC ASSOCIATED WITH THE DEVELOPMENT CAN BE ACCOMMODATED WITHIN THE HIGHWAY NETWORK WITHOUT UNACCEPTABLY AFFECTING HIGHWAY SAFETY;

(C) ROAD, JUNCTION AND SITE ACCESS ARRANGEMENTS CAN ACHIEVE THE APPROPRIATE STANDARD WITHOUT UNACCEPTABLE DAMAGE TO THE CHARACTER OF THE ROAD; AND

(D) ANY TRAFFIC ASSOCIATED WITH THE DEVELOPMENT WOULD NOT HAVE AN UNACCEPTABLE EFFECT ON THE AMENITY OF USERS OF PROPERTY OR LAND BY REASON OF NOISE, VIBRATION, DUST, FUMES OR SMELL.

5.84 Mineral and waste management sites can generate large volumes of heavy traffic particularly on roads within the immediate vicinity of operational sites. This has impacts both upon the local highway network and local amenity. The main impacts on local amenity from heavy goods vehicles are noise, vibration, dust, fumes and a
reduction in road safety. These problems are not confined to locations close to the point of site access but are also experienced where heavy vehicles pass through residential areas and use minor roads. Other environmentally sensitive areas, such as conservation areas, listed buildings, important nature conservation sites, could also be affected. Policies in Section 1 of Chapter 5 specifically address the issue of impact on the natural and built environment. In certain instances, development proposals may be close to existing pedestrian or cycle routes/links. These routes should not be prejudiced by development which would adversely affect either the safety and amenity of the route or access to it.

5.85 Planning permission will be refused where roads are unsuitable and cannot be made acceptable. Examples of on-site works which may be required are surfaced haul roads, slip roads, sight lines, on-site parking and turning areas, wheel cleaning facilities and access signs. Off-site works include road works and traffic management. Where off-site works are proposed, the Local Planning Authority will require a full assessment of the impact of these works, and any necessary mitigation measures, to be included with the planning application. The Local Planning Authority will seek to ensure that works on and adjacent to a road can be carried out without causing irreversible harm to the character of the road.

5.86 Where highway improvements, including any environmental mitigation measures, are necessary these will be achieved by the imposition of planning conditions or by seeking legal agreement. Routeing agreements may be required to avoid local communities and inadequate roads. Limits on production and lorry movements may also be justified in certain circumstances so as to prevent undue pressure on the highway network and local amenity. In such cases, the Council will be guided by Circulars 11/95 and 1/97 (paras 5.9 & 5.10 refer).

(B) Alternative Transport Modes

POLICY 25

THE LOCAL PLANNING AUTHORITY WILL ENCOURAGE AND SUPPORT THE TRANSPORT OF MINERALS AND WASTE MATERIALS OTHER THAN BY ROAD. PROPOSALS INVOLVING THE NON-ROAD TRANSPORT OF MINERALS OR WASTE, OR THE CONSTRUCTION OF RAIL-HEADS, RAIL DEPOTS, WHARVES OR CONVEYORS, WILL BE PERMITTED WHERE THEY WILL NOT HAVE AN UNACCEPTABLE EFFECT ON NEARBY PROPERTIES AND LAND USES BY WAY OF VISUAL INTRUSION, NOISE, VIBRATION, DUST, OR FUMES.
POLICY 26

THE EXISTING RAIL-HEADS AT TYTHERINGTON QUARRY, WESTERLEIGH, AND THE DIAMOND, STOKE GIFFORD, WILL BE SAFEGUARDED FROM DEVELOPMENT WHICH WOULD PREJUDICE THEIR CONTINUED EXISTENCE.

5.87 In recognition of the substantial environmental benefits which generally are to be gained, Government guidance favours the bulk transport of material by rail or waterway rather than road. However this guidance goes no further than encouraging the use of rail or water transport.

5.88 South Gloucestershire Council supports the movement of freight by rail due to the reduced environmental impact and safety benefits when compared with road use, and favours the linking of a quarry with the rail network, although it is acknowledged that installing a new rail link may adversely impact on the environment in other ways. The Council recognises, however, that opportunities for using alternative modes to road may be limited within South Gloucestershire. Only one quarry in the Plan area (Tytherington) is currently rail linked, although there is the potential, by virtue of their proximity to a railway line, to install rail links to certain other quarries. Section 139 grants and Track Access Grants under the 1993 Railways Act are available to assist with the capital cost of constructing rail facilities and accessing the railway network. The installation of rail links, where appropriate, is supported by the Council in accordance with Policy 25. Whilst the Plan does not propose new rail head facilities, existing facilities at Tytherington Quarry, Westerleigh and the Diamond, Stoke Gifford will be safeguarded from development which would prejudice their continued use as railheads.

5.89 The rail head at Westerleigh serves the oil terminal and the waste facility whereby bulked waste in containers is transferred from road to rail for onward transfer to a remote landfill. The rail head lies entirely within the Green Belt and any proposal for new development to take advantage of the facility would be contrary to the policies of this Plan. However, the sustainable transportation advantages of locating appropriate development at a rail head may constitute ‘very special circumstances’. In such a situation the departure procedures under Circular 19/92 would come into effect.
5.90 The Diamond, Stoke Gifford has traditionally been used to receive and process construction and demolition waste arising from the rail network. The reprocessed secondary aggregate is then fed back into the network for maintenance purposes. Transport of all materials is mainly by rail.

5.91 Water transport opportunities are limited. The River Avon, which forms part of the southern boundary of South Gloucestershire, is remote from the quarries and waste management sites in South Gloucestershire and, therefore, unlikely to be a viable alternative to road transport. Although the River Severn forms the western boundary of South Gloucestershire, existing wharfage facilities are concentrated on the River Avon within Bristol City Council’s area. Any opportunity for development along the River Severn is severely restricted by the fragile nature of the estuary, and its international conservation status, and the importance of the natural and historic landscape of the Severn Levels.

5.92 Conveyors are often used for movement internally within a quarry site and to nearby processing plant. At Wickwar Quarry, for example, a conveyor under a road carries material from a primary crusher to the main processing plant, reducing the need for haulage by quarry vehicles. The Local Planning Authority will encourage operators to investigate the use of conveyors where this would secure significant environmental benefits over alternative transport measures and there would not be a detrimental effect on local amenity.
Ancillary and Secondary Operations

**POLICY 27**

**WITHIN A MINERAL OR WASTE SITE, DEVELOPMENT RELATED TO OPERATIONS ANCILLARY OR SECONDARY TO THE PRIMARY ACTIVITY ON THE SITE WILL BE PERMITTED, WHERE:**

(A) **IN THE CASE OF A MINERAL SITE, THE DEVELOPMENT PRIMARILY USES MINERAL EXTRACTED FROM THE SITE; AND**

(B) **THE DEVELOPMENT WILL NOT RESULT IN UNACCEPTABLE VISUAL INTRUSION; AND**

(C) **THE DEVELOPMENT WILL NOT CREATE UNACCEPTABLE TRAFFIC IMPACT OR UNACCEPTABLE IMPACT ON RESIDENTIAL/LOCAL AMENITY.**

WHERE PLANNING PERMISSION IS GRANTED, AND UNLESS REQUIRED FOR LONGER TERM MANAGEMENT OR MONITORING, THE OPERATION AND RETENTION OF THE DEVELOPMENT WILL BE LIMITED TO THE PERMITTED LIFE OF THE SITE FOR MINERAL EXTRACTION OR WASTE MANAGEMENT PROCESSES.

5.93 Generally, excavated material from mineral operations requires some form of processing, such as crushing and screening, prior to being sold. In certain circumstances the plant and buildings for these ancillary activities may constitute permitted development under the Town and Country Planning (General Permitted Development) Order 1995 (GPDO) and, consequently, will fall outside the scope of the policies in this Plan. Ancillary operations can detract from the amenity of the surrounding area through visual intrusion, traffic movements, noise and dust. The Carboniferous Limestone quarries in South Gloucestershire have extensive processing plant and buildings and visual intrusion has been, and continues to be, a particular concern. The Local Planning Authority will expect operators to maximise the opportunity for screening ancillary plant and buildings by siting such development below the level of the adjoining ground i.e. on the quarry floor or in excavated areas. While landscape works and, where appropriate, earth modelling can assist in satisfactorily screening lower level buildings, these amelioration measures are generally inadequate for the larger buildings found at South
Gloucestershire quarries. Where earth modelling is appropriate, sensitive design is essential to ensure that the mounding and associated structures, such as fencing, integrate with the local landscape and do not compound the impact of the mineral activity. Where appropriate, the Local Planning Authority will encourage the establishment of tree belts and woodland areas to assist with the screening of plant and buildings.

5.94 Secondary operations involve using minerals to produce a manufactured product. Concrete batching plants, concrete block-making plants, tarmacadam/asphalt plants and brick and tile works are examples of such operations in South Gloucestershire. In certain circumstances the plant and buildings associated with secondary operations may also constitute permitted development under the GDPO, subject to satisfactory siting, design and amenity details.

5.95 The development of secondary plant often leads to an intensification of use on the mineral site, the generation of additional traffic, as well as potential amenity and pollution issues. In this respect, the Local Planning Authority will not permit secondary operations where the primary component of the finished product is not the mineral extracted from the site. As with ancillary operations, the Local Planning Authority will be looking for siting below the level of adjoining ground.

5.96 In respect of waste management, Policy 27 only applies to development ancillary to the operation and administration of a waste management facility. Proposals for additional waste management facilities (for example, a composting facility at an existing landfill site) will be considered under the policies in Chapter 9 of the Plan. A requirement for ancillary development may arise at waste management facilities particularly if the conditions of the waste management licence are modified. For example, additional environmental monitoring equipment may need to be installed and housed in a building. There are no permitted development rights under the GPDO specifically for waste management facilities. The Local Planning Authority will wish to consider carefully the visual impact of such ancillary development, especially where it may be in place long after the waste management facility has ceased operation and the land has been restored.

5.97 In addition to Policy 27, all planning applications for ancillary and secondary operations will be subject to the environmental protection policies in this Plan to ensure that the operations can be carried out without adversely affecting the
environment and local amenity. Unless associated with longer term monitoring or management, ancillary and secondary operations will be expected to cease and plant and buildings be removed when mineral extraction or waste management operations on the site cease, so as not to delay the restoration of the site.

5.98 Ancillary and secondary development which falls outside Policy 27 because it is not located on a minerals or waste site, or does not use material primarily won from the adjoining excavation, will be considered on its merits having regard to the provisions of the development plan. Such examples could be a concrete batching plant on an industrial estate or a brickworks.

**Restoration and Aftercare**

(A) Restoration

**POLICY 28**

PLANNING PERMISSION FOR MINERALS OR WASTE DEVELOPMENT WILL BE GRANTED ONLY WHERE THE LOCAL PLANNING AUTHORITY IS SATISFIED THAT THE PROPOSALS WOULD ALLOW A HIGH STANDARD OF RESTORATION AND AFTERCARE, WHERE APPROPRIATE, TO BE UNDERTAKEN TO ACHIEVE A BENEFICIAL AFTERUSE WITHIN A REASONABLE TIMESCALE. WHEREVER POSSIBLE AND PRACTICABLE, PROGRESSIVE RESTORATION AND AFTERCARE WILL BE REQUIRED.

5.99 Mineral working inevitably changes the landscape while it is taking place. These changes can be minimised where land is reclaimed at the earliest opportunity and to a standard suitable for its intended after-use. This is the main aim of national guidance in respect of the reclamation of mineral workings as set out in MPG7.

5.100 Indeed MPG7 also states that “where there is serious doubt whether satisfactory reclamation can be achieved at a particular site, then there must also be a doubt whether permission for mineral working should be given” (para 3). These comments are equally applicable to developments involving the disposal of waste to land.

5.101 In order to achieve satisfactory reclamation, restoration and aftercare should be seen as an integral part of the working of a site. The final landform, gradients and
drainage of a site need to be established early. At mineral working sites, creating the landform may require filling the site with mine and quarry waste and/or with controlled wastes. A landscape and ecological strategy for both operational and reclamation phases through to maturity of the new landscape will assist in integrating the site into the landscape and may provide opportunities to create new landscape or landform features. The effects on the water environment will also need to be considered as restoration proposals can have a significant effect on both ground and surface water. Works in advance of extraction or disposal can assist both in reducing the impact of the operational phase and in reducing the time taken for the restored site to be integrated into the landscape. Careful handling and storage of soils during site preparation and extraction as well as in restoration is necessary to prevent soil degradation and a subsequent reduction in the standard of restoration which may be achieved. Adequate information is therefore required at the planning application stage to demonstrate that restoration of a site to an acceptable standard and after-use is achievable. Working schemes should facilitate the maximum degree of progressive restoration, so as to reduce environmental impact, although it is recognised that within the hard rock quarries of South Gloucestershire the ability to achieve progressive restoration is limited due to the depth of working.

(B) Standard of Restoration

POLICY 29

PLANNING PERMISSION FOR MINERALS DEVELOPMENT AND FOR DISPOSAL OF WASTE TO LAND WILL BE PERMITTED ONLY WHERE RESTORATION PROPOSALS SEEK TO RESTORE AND, WHERE POSSIBLE, ENHANCE THE CHARACTER, QUALITY, AMENITY AND DISTINCTIVENESS OF THE LANDSCAPE.

WHERE APPROPRIATE, PROPOSALS WILL ALSO BE EXPECTED TO PROVIDE OPPORTUNITIES FOR PUBLIC ACCESS AND RECREATION.

5.102 Recent years have seen changing attitudes to the after-use of mineral and waste disposal sites. Where agriculture was once regarded as the most appropriate after-use, there is now much more consideration of the non-agricultural after-uses of amenity, nature conservation, wetland creation and forestry. The Government’s Forestry Strategy, for example, seeks opportunities for forestry to become a more frequent afteruse on restored mineral and waste sites.
5.103 However, where land was of best and most versatile agricultural quality prior to development, DEFRA would prefer to see this land returned to agricultural use wherever appropriate. Where an alternative afteruse is more appropriate, this would only be acceptable where there would be no long term downgrading of the agricultural land quality and the land resource would be preserved for future agricultural use. Where land which is not of best and most versatile agricultural value is worked for minerals, and where agriculture is the proposed afteruse, a standard of restoration and aftercare will be required which will ensure that the land is returned to a state which is fit for agricultural use.

5.104 In all cases where agricultural after-use is proposed, schemes should include landscape, nature conservation and other amenity proposals provided that they do not result in the permanent downgrading of best and most versatile agricultural land.

5.105 Many opportunities exist for imaginative landscape and habitat creation schemes and these offer wildlife and/or recreational opportunities which would not otherwise exist. It is important, however, that agricultural, forestry and water-based reclamation should be firmly linked to an understanding of the structure and character of the wider landscape. This will ensure the appropriate choice of form, scale, type and species for new landscape features and produce a pattern and level of use which integrates with the surrounding landscape. In this way restoration schemes can be character led and lead to restoration and, where possible, enhancement of the inherent character and locally distinctive features of an area, although it is recognised that within the deeper hard rock quarries in South Gloucestershire the ability to achieve such objectives may be more limited.

5.106 Restoration and aftercare schemes should include the management of landscape features which make up the wildlife network and are of major importance for wild flora and fauna. Reversing the fragmentation and isolation of habitats from the landscape features that form links between them should be an aim of any restoration and after-use proposal. The exposure of geological and geomorphological features that are of nature conservation interest is a common outcome of extraction activity and opportunities for recording, conservation and enhancement should be considered in after-use proposals.
5.107 Where forestry, nature conservation, wetland creation and other amenity after-uses are proposed regard should be had to the opportunities for creating additions to, or improving access to, the existing public rights of way network, and the opportunities for incorporating open space and other appropriate recreation facilities within the after-use scheme. This should allow for permissive public access where possible and appropriate. Within South Gloucestershire non-agricultural after-uses can play a positive role in fulfilling Green Belt objectives. After-use of mineral and waste sites to forestry and amenity woodland will also be encouraged, as appropriate, both within the area of the Forest of Avon initiative and elsewhere in South Gloucestershire.

5.108 All after-use proposals, however, need to consider the potential impact of the after-use on local amenity.

5.109 Where interim restoration schemes are necessary, for example at landfill sites where environmental monitoring or landfill gas management prevents early tree planting, Policy 29 will equally apply to the interim scheme.

(C) Aftercare

POLICY 30
PLANNING PERMISSIONS WHICH ARE SUBJECT TO CONDITIONS REQUIRING RESTORATION TO AGRICULTURE, FORESTRY OR AMENITY WILL ADDITIONALLY BE SUBJECT TO AN AFTERCARE CONDITION FOR A MAXIMUM OF FIVE YEARS TO BRING THE RESTORED LAND UP TO AN ACCEPTABLE STANDARD FOR THE SPECIFIED AFTERUSE. ADDITIONALLY, IN ORDER TO ACHIEVE THIS ENVIRONMENTAL STANDARD, THE LOCAL PLANNING AUTHORITY WILL, WHERE APPROPRIATE, SEEK TO SECURE LONGER TERM MANAGEMENT AGREEMENTS.

5.110 The need for aftercare stems from the recognition that land which is to be fully reclaimed requires cultivation and management for a number of years to bring it to a satisfactory standard. The replacement of soils alone through restoration conditions is not sufficient. The ultimate aim behind the concept of aftercare is that, over time, restored land can be brought to a standard such that it does not have to be treated differently from undisturbed land.
5.111 Under current legislation Local Planning Authorities are allowed to impose a condition requiring aftercare for a period of up to five years following restoration for agriculture, forestry and amenity afteruses. As detailed in MPG7 (para 19) the term ‘amenity’ includes “open grassland, country parks, informal recreational areas, conservation of landscape, natural features and wildlife, basic preparations for more formal sports facilities, amenity woodland, and water areas”. In the case of progressive restoration there will also be a rolling aftercare programme, with each aftercare period beginning following completion of the restoration of the relevant part of the site. With certain non-agricultural uses, such as nature conservation, landscape proposals and woodland, an aftercare period for longer than five years may be necessary to satisfactorily establish species and habitat areas and thereby secure the required high standard of restoration. The Local Planning Authority will, where necessary, seek to negotiate legal agreements to secure the longer term management of sites in order to meet reclamation objectives.
CHAPTER 6

Crushed Rock

Introduction
6.1 Crushed rock is hard rock which has been crushed and screened for use as an aggregate in the construction industry. Within South Gloucestershire, limestone is the principal source of crushed rock. Active quarries at Chipping Sodbury, Wickwar, Tytherington and Wick, together with a temporarily inactive site near Cromhall, work the Carboniferous Limestone principally for general roadstone purposes and for bulk fill. A smaller quarry near Cromhall works the Quartzitic Sandstone which has specific skid resistant properties and is therefore used for wearing courses in road construction.

Aim
6.2 The Council’s aim for meeting the overall need for minerals is:-

To provide, through the management of mineral resources, for a steady and adequate supply of minerals consistent with national and regional guidelines.

Objectives
6.3 The specific objectives in meeting the need for crushed rock are:-

(1) To maintain a landbank for crushed rock at an appropriate level and for an appropriate period;

(2) To identify areas for potential future crushed rock extraction to assist in the maintenance of the landbank;

(3) To restrict the extraction of crushed rock outside the identified areas;

(4) To encourage the appropriate use of high specification aggregates.
Production and Consumption

6.4 Within the South West Region, Avon’s importance as a supplier of crushed rock fell during the 1980’s, but has since increased such that the proportion of regional production now supplied from Avon has returned to the level of the 1970’s. From the following table, Avon supplies over 20% of sales from the Region and is the second largest producer of crushed rock in the Region, the largest being Somerset who supply about half of the Region’s crushed rock sales.

Table 2: Production of Crushed Rock (million tonnes)

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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>South West</td>
<td>30.2</td>
<td>20.0</td>
<td>25.9</td>
<td>38.2</td>
<td>28.0</td>
<td>32.2</td>
<td>22.9</td>
<td>23.0</td>
<td>24.1</td>
<td>23.1</td>
<td>25.3</td>
</tr>
</tbody>
</table>

| Former Avon area | 6.3 | 4.2 | 4.8 | 6.3 | 4.9 | 6.8 | 5.1 | 4.8 | 5.2 | 5.0 | 5.1 |
| Former Avon’s area’s share of regional production | 21% | 21% | 18% | 16% | 17% | 21% | 22% | 21% | 22% | 21% | 20% |

Source: SWRAWP Annual Reports

6.5 Annual crushed rock production within Avon has fluctuated between 4.8 and 6.8 million tonnes during the period 1989 - 2000. Although precise sales figures for individual unitary authorities cannot be published due to mineral company confidentiality restrictions, the quarries in South Gloucestershire have contributed around 60% of sales from Avon in recent years, which represents a fall from the 76% contributed in 1989, but a return to the 1970’s contribution level. This equates to a production output of 3 - 4 million tonnes per annum for 1994 - 1996. The remaining sales for Avon have come from quarries within North Somerset Council’s area.

Future Requirements for Crushed Rock

6.6 National guidance in MPG1 requires each mineral planning authority to make a contribution to meeting the demand for minerals which generally reflects the nature and extent of minerals in its area. More specifically MPG6 requires mineral planning authorities to maintain landbanks for crushed rock, to enable the minerals industry
to maintain access to an adequate and steady supply of aggregate even when
demand fluctuates. The quantity of reserves with permission needed to maintain a
landbank is determined by the anticipated future requirements for crushed rock and
by the period of time for which the landbank is to be maintained. MPG6 indicates
that for crushed rock a period longer than 7 years may be appropriate without
specifying how long the actual period should be.

6.7 National planning guidance in respect of the future requirement for aggregates,
including crushed rock, is provided by MPG6. The note advises that provision in
England of some 1.9 billion tonnes of crushed rock is required for the period 1992-
2006 and that mineral planning authorities in the South West Region should make
provision for 610 million tonnes (32%) of this requirement.

6.8 In 1994 the SWRAWP apportioned the 1992 - 2006 MPG6 guideline figure for crushed
rock (610 million tonnes) between the then mineral planning authorities and
presented the sub-regional apportionment figures to the Regional Planning
Conference. The Avon figure equates to 98 million tonnes. The Conference resolved
that they could only support the sub-regional apportionment exercise if the figures
for all mineral planning authorities proved to be environmentally acceptable when
tested through minerals local plans.

6.9 The Joint Replacement Structure Plan provides the strategic context for the unitary
authorities in making an appropriate contribution to national, regional and local
supply consistent with both MPG6 guidelines and the principles of sustainable
development. For the period 1997 - 2006 the Plan indicates that South
Gloucestershire should make provision for the release of 39 million tonnes of crushed
rock and that, for the period beyond 2006, South Gloucestershire should make
provision for 60% of the appropriate contribution from Avon (Policy 26 of the Joint
Replacement Structure Plan refers) . In addition, the Structure Plan also indicates
that the crushed rock landbank period should be at least 15 years.

6.10 The current MPG6 guidelines only apply to the period to 2006, although the
guidance does suggest that requirements for the period beyond 2006 should be
determined on a pro-rata basis. The Plan period is to 2011 and, with a 15 year
landbank to be maintained at the end of the Plan period, the Plan should be aiming
to make provision for future needs to 2026. As there is no basis for assuming an
upward or downward trend in requirements beyond 2006, the Plan makes provision
for the continuation of the sub-regional apportionment level to 2026, while recognising that the Plan can be reviewed to take account of any changes. Therefore, the estimated contribution from South Gloucestershire for the period 1997 - 2026, derived from the sub-regional apportionment for Avon, equates to 118 million tonnes. This represents the figure which has been tested for environmental acceptability, in accordance with the Regional Planning Conference resolution, through the sustainability appraisal of this Local Plan.

Table 3: Estimated Production Requirement (million tonnes)

<table>
<thead>
<tr>
<th></th>
<th>From Structure Plan</th>
<th>Remainder of Plan period</th>
<th>Landbank</th>
<th>TOTAL PRODUCTION REQUIREMENT 1997 - 2026</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1997 - 2006 (10 years)</td>
<td>2007 - 2011 (5 years)</td>
<td>2012 - 2026 (15 years)</td>
<td></td>
</tr>
<tr>
<td>Avon</td>
<td>65</td>
<td>33</td>
<td>98</td>
<td>196</td>
</tr>
<tr>
<td>South Gloucestershire (60% of Avon)</td>
<td>39</td>
<td>20</td>
<td>59</td>
<td>118</td>
</tr>
</tbody>
</table>

Meeting Future Requirements

POLICY 31
PROVISION WILL BE MADE BETWEEN 1997 AND 2026 FOR THE EXTRACTION OF UP TO 118 MILLION TONNES OF CRUSHED ROCK.

POLICY 32
IN ORDER TO MAINTAIN A LANDBANK FOR CRUSHED ROCK OF AT LEAST 15 YEARS THROUGHOUT THE PLAN PERIOD, AT A LEVEL TO MEET THE REQUIREMENTS OF POLICY 31, PROVISION IS MADE FOR THE EXTRACTION OF CRUSHED ROCK THROUGH THE FOLLOWING PREFERRED AREAS:-

(A) SOUTH WEST OF TYTHERINGTON QUARRY (Inset No 1)

(B) NORTH OF WICKWAR QUARRY (Inset No 2)

(C) EAST OF CHIPPING SODBURY QUARRY (BRINSHAM FARM EXTENSION) (Inset No 3)
6.11 For the purpose of the Plan, the landbank for South Gloucestershire has been calculated to only include those reserves which could realistically be worked before 2026. The landbank includes reserves from all six of the crushed rock quarry units in the Plan area. Permitted reserves within South Gloucestershire which could be worked during the period 1997 - 2026 are estimated to be 81 million tonnes. The shortfall, therefore, between the forecast requirement of 118 million tonnes and the landbank is 37 million tonnes.

6.12 However, the permitted reserves are not distributed evenly between the quarries in South Gloucestershire. As production is restricted to five active units and one temporarily inactive unit, the implications of any reduction in the number of production units in South Gloucestershire due to exhausted reserves needs to be taken account of in calculating provision requirements, otherwise there is likely to be difficulty in maintaining the landbank at the requisite level and duration in the latter part of the Plan period. When the individual quarry landbanks are taken account of, permitted reserves at the limestone quarries of Wick, Tytherington and Wickwar are likely to be insufficient to enable a 15 year landbank to be maintained in the latter part of the Plan period. This equates to a projected 2 million tonnes shortfall in production capacity. Over the period to 2026, therefore, the Plan should make provision for 39 million tonnes, i.e. the difference between forecast requirements and permitted reserves, adjusted to reflect landbank requirements.

Wick Quarry
This quarry has a finite life and reserves are insufficient for production to be maintained to 2026 at current levels. Production is limited by planning condition to 450,000 tonnes per annum and the loss of production capacity would need to be allowed for at other quarries.

Tytherington Quarry
This is the only rail-linked quarry in South Gloucestershire. The quarry has a substantial plant complex. Existing workable reserves are limited. The completion of a Section 106 Agreement associated with a planning permission to re-route a lane, which runs through the existing area of permitted reserves, would release nearly 20 million tonnes of permitted reserves from potential sterilisation adding a further 15 years of working at the site. Further proven resources exist to the south west of the quarry.
Wickwar Quarry
This quarry has a modern plant complex and associated concrete block plant. Output is restricted by planning condition to 400,000 tonnes per annum due to highway network constraints. There are an estimated 15 years worth of reserves remaining in the current workings on the east side of the B4509. Further proven resources exist to the north of the current quarry workings.

Chipping Sodbury Quarry
This large quarry has sufficient permitted reserves at current production levels to last through both the Plan period itself and the landbank period at the end. However, to prevent unnecessary mineral sterilisation on the eastern edge of the quarry, it would be appropriate to identify a small Preferred Area on the edge of the East Brinsham Farm area of the quarry.

Cromhall Limestone Quarry
This quarry is temporarily inactive due to the operating company’s current marketing strategy. It has substantial permitted reserves to last beyond 2026. Reserves within the Slickstones area of the quarry have been included in the landbank calculations for the Plan.

Cromhall Quartzite Quarry
Although this quarry is considered later in the section on High Specification Aggregates (see paras 6.21 - 6.27), it does make a contribution to meeting crushed rock requirements, and reserves at the quarry are included within the South Gloucestershire crushed rock landbank.

6.13 The MPG6 forecast as interpreted in the sub-regional apportionment for Avon is some 9% higher than average annual output rates over recent years, with the exception of 1994. Should current market requirements increase, therefore, production levels from the quarries in South Gloucestershire could easily attain the forecast annual production figure of 3.9 million tonnes. In 1989, which is the highest production year to date, the quarries in South Gloucestershire actually produced 4.8 million tonnes. Although one quarry has since ceased production, this quarry was not a major producer.
6.14 When assessing future requirements and given the level of the existing landbank referred to in para 6.11, it is considered that it would be in accordance both with national guidelines and the resolution of the Regional Planning Conference, to make provision in this Plan for the full 118 million tonnes over the period 1997 - 2026 since, for the Avon area and, hence, for South Gloucestershire, this does not represent a significant increase in annual output and the shortfall can be accommodated through a limited number of extensions to existing sites. Sufficient land has therefore been identified through Preferred Areas to meet both the forecast shortfall in reserves to 2026, as set out in para 6.11, and to take into account the anticipated life of the reserves at each quarry unit.

6.15 Since the base date of the Plan (1.1.97), a planning permission at Cromhall Quartzite has added a further 600,000 tonnes to the landbank. The Council has also approved, subject to S106 Agreements being completed, the release of additional reserves at Wick and Tytherington Quarries. Taken together, the reserves at the 3 sites would reduce the projected shortfall of 39 million tonnes by around 21 million tonnes, down to 18 million tonnes. The Plan identifies Preferred Areas to meet the projected 18 million tonnes shortfall, as follows:

- South West of Tytherington Quarry (Inset No 1)
- North of Wickwar Quarry (Inset No 2)
- East of Chipping Sodbury Quarry (Inset No 3) (Brinsham Farm Extension)

The contribution from these Preferred Areas is an estimated 20-22 million tonnes.

6.16 Notwithstanding the acceptance in principle of crushed rock extraction within the Preferred Areas, any detailed proposals which come forward will still be required to comply with the other policies of the Plan. The text to Inset Maps Nos 1 - 3 indicates particular constraints to working the Preferred Areas which will need to be addressed by prospective operators.
POLICY 33

PERMISSION FOR THE EXTRACTION OF CRUSHED ROCK OUTSIDE THE PREFERRED AREAS IN POLICY 32 WILL NOT BE GRANTED OTHER THAN:-

(A) FOR MINOR BOUNDARY ADJUSTMENTS AT EXISTING QUARRIES, TO PREVENT MINERAL STERILISATION; OR

(B) TO SECURE SIGNIFICANT ENVIRONMENTAL BENEFITS; OR

(C) FOR THE WORKING OF HIGH SPECIFICATION AGGREGATES IN ACCORDANCE WITH POLICY 34; OR

(D) TO MEET A COMPELLING NEED FOR LIMESTONE EXTRACTION WHICH CANNOT BE MET FROM THE EXISTING PERMITTED RESERVES OR FROM THE PREFERRED AREAS.

6.17 Having identified Preferred Areas to meet the anticipated shortfall between future crushed rock requirements and permitted reserves, it follows that any planning application for working of limestone outside these areas will be contrary to policy other than in exceptional circumstances. Such circumstances might include a minor boundary adjustment to prevent mineral sterilisation, justifiable need for the release of mineral to be used as a high specification aggregate, compelling unforeseen need for further limestone extraction which cannot be met from the Preferred Areas or existing permitted reserves, an opportunity to secure significant environmental benefits, or the substitution of a site for a Preferred Area which is significantly more acceptable. In practice the latter circumstance is likely to be very rare. Because provision to meet future crushed rock requirements has been met through the identification of Preferred Areas, the local planning authority will need to be satisfied that any proposal which comes forward under Policy 33 will not compromise the Plan’s overall strategy for crushed rock or its implementation through overprovision.

6.18 A minor boundary adjustment may be appropriate, for example, to update an older permission which does not accurately reflect the full extent of the mineral deposit so as to prevent mineral sterilisation. In considering what constitutes “minor”, the Mineral Planning Authority will take into account such factors as land take, the quantity of mineral to be extracted, the depth of working and the duration of extraction operations.
A situation could arise which would enable significant environmental benefits to be secured at an existing quarry. For example, alterations to a planning permission boundary could allow modern restoration techniques to be applied in the older working area of a quarry where the existing quarry faces are excessively steep and close to existing permitted boundaries. There may also be an opportunity for unworked land with existing planning permission to be exchanged for land elsewhere. The recent planning permission for the Gatherham Farm extension at Wick Quarry, for example, provided the opportunity for the mineral working rights in the environmentally sensitive area of Raven’s Rock to be relinquished in exchange for a northwards extension. The resultant increase in permitted reserves at the Quarry was only around 500,000 tonnes. For any proposal which came forward under Clause (B), the local planning authority would need to be satisfied that there would be a significant environmental gain and that there would be no more than a minor increase in the quarry landbank.

Any proposals for which come forward under Policy 33 will need to be assessed against the other policies of the Plan.

High Specification Aggregates

POLICY 34

PROPOSALS FOR THE WORKING OF MINERAL FOR USE AS A HIGH SPECIFICATION AGGREGATE WILL ONLY BE PERMITTED WHERE:-

(A) THERE IS A DEMONSTRABLE NATIONAL OR REGIONAL NEED FOR THE MINERAL FOR THIS PURPOSE; AND

(B) SUFFICIENT MINERAL CAN BE WON FROM THE DEVELOPMENT TO MEET THE SPECIFICATION REQUIREMENTS FOR THIS PURPOSE.

High Specification Aggregates (HSAs) are required primarily for use in road wearing courses and as road surface chippings in areas where high levels of skidding resistance and aggregate durability are required. Only a limited range of natural resources are capable of yielding material which meets the specification requirements for such high quality aggregates.
6.22 A Government sponsored research project was undertaken by Symonds Travers Morgan in the early 1990’s to investigate the existing and potential supply of, and demand for, high specification aggregates. The published report (1993) defined high specification aggregates as aggregates which meet the minimum requirements of the following physical test criteria:-

<table>
<thead>
<tr>
<th>Test Criteria</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polished Stone Value</td>
<td>$\geq 58$</td>
</tr>
<tr>
<td>Aggregate Abrasion Value</td>
<td>$\leq 16$</td>
</tr>
<tr>
<td>Aggregate Impact Value</td>
<td>$\leq 30%$</td>
</tr>
<tr>
<td>Ten Percent Fines Value</td>
<td>$\geq 140\text{kN}$</td>
</tr>
<tr>
<td>Magnesium Sulphate Soundness Value</td>
<td>$\geq 75%$</td>
</tr>
</tbody>
</table>

6.23 Within South Gloucestershire, the quarry near Cromhall on the Quartzitic Sandstone produces a modest amount of material which is used as high specification aggregate. A recent planning permission for some 0.6 million tonnes, will enable HSA material to be worked at the quarry for the next 10 years. Additional resources in the vicinity of the quarry are unlikely to yield sufficient economically workable high specification material. There are, however, permitted reserves of material remaining at the quarry to the west of Dyer’s Brake which are suitable for use as crushed rock and may also include deposits of high specification aggregate. This material may be worked once the reserves of Quartzitic Sandstone to the east of Dyer’s Brake have been exhausted. Due to planning restrictions, the output of material from the quarry is limited to 70,000 tonnes per annum. Therefore, the likely maximum contribution which the material to the west of Dyer’s Brake could make to meeting forecast crushed rock requirements in the period to 2026 is around 1 million tonnes. The amount which could be used for high specification aggregate is unknown, but is likely to be limited due to geological factors.

6.24 Other sources of HSA in the South West are the quarries in Exmoor National Park and the currently dormant Conygar Quarry in the North Somerset area of Avon. South Wales is the major producer of HSA in the UK with an estimated 50+ years of permitted reserves.

6.25 The findings of the Symonds Travers Morgan Report conclude that, although in overall terms there appears to be a reasonable level of permitted reserves within the UK, due to the geographical distribution of geological resources and centres of
population, there are pronounced regional imbalances between supply and demand. In the South West Region this equates to a likely need for High Specification Aggregates with a Polished Stone Value of 60+.

6.26 In terms of geological prospects for resource development within England and Wales, the Mangotsfield Formation of the Pennant Series (Bristol Area) and the Pennant Sandstones of South Wales are identified in the Report as the two most promising potential resources of PSV 68+. The former resource area lies within Avon but is not exclusive to South Gloucestershire. Within the Plan area the Mangotsfield Formation extends from Mangotsfield through to the Winterbourne/ Frampton Cotterell area and north to include the village and surrounds of Iron Acton. However, the Report concentrated only on identifying the most promising sources of PSV 68+ (which represents only part of the HSA market) and did not identify potential sources of PSV in the range 58 - 68.

6.27 In view of the distribution and incidence of quarries which supply HSA either within, or in close proximity to, the South West Region, together with the relatively small tonnage of material which would be displaced by the closure of Cromhall Quartzite Quarry, it is not considered necessary for the Plan to identify any area for the future working of high specification aggregates. However, it is recognised that proposals may come forward for a new quarry to replace Cromhall Quartzite during the Plan period. Indeed a planning application and subsequent appeal in the late 1980’s for a new quarry at Mudgedown Farm, Iron Acton was unsuccessful in this respect. A criteria-based policy against which any proposal will be assessed is, therefore, considered to be the appropriate policy approach for high specification aggregates. In assessing a proposal, the Mineral Planning Authority will, in addition to the usual environmental considerations, require the applicant to demonstrate that there is either a national or regional need for the material as a high specification aggregate, since sufficient provision has been made in the Plan to meet future requirements for crushed rock, and that a sufficient quantity of the material to be won will meet the technical specifications necessary to supply the high specification aggregate market.
CHAPTER 7

Clay

Introduction
7.1 Clay extraction in South Gloucestershire is associated with the manufacture of bricks. At the present time there are two active claypits, at Over Lane, Almondsbury (referred to as Cattybrook claypit) and to the west of Pucklechurch near Shortwood (referred to as Shortwood claypit), both of which supply the Cattybrook Brickworks near Almondsbury. A second brickworks at Severnside closed in the mid 1990’s and extraction from its nearby associated claypit has also ceased.

Aim
7.2 The Council’s aim for meeting the overall need for minerals is:-

*To provide, through the management of mineral resources, for a steady and adequate supply of minerals consistent with national and regional guidelines.*

Objectives
7.3 The overall objectives in considering the requirements for clay are:-

1. To identify areas for potential clay extraction to meet the needs of the associated brickworks;
2. To restrict clay extraction outside the identified areas.

Production and Consumption
7.4 Avon has never been an important centre of clay extraction and is one of the smallest producers in Great Britain. Current output from the Cattybrook Brickworks is in excess of 50 million bricks per annum. 165,000 tonnes of clay is required for this brick output, 125,000 tonnes of which is extracted from the adjacent Cattybrook claypit, with the remaining 40,000 tonnes being extracted and brought in from the Shortwood clay pit.

7.5 Nationally, the brickmaking industry itself has, for a number of years, been going through a period of contraction and consolidation, and the closure of the Severnside Brickworks is one example of this general contraction.
The Clay Resource

7.6 The claypit at Cattybrook is sited on an inlier of Carboniferous (Lower Coal Series) strata, which consists mainly of highly disturbed and contorted clay, fireclays, shales and fractured quartzitic sandstones with some thin but impersistent coal seams. Four different clays are separately won at Cattybrook, each firing a different colour between red and golden. By contrast, Shortwood offers one type of red firing clay, which is ceramically different to the red firing clay at Cattybrook. All the various clays are blended in differing proportions to produce the range of bricks manufactured at Cattybrook. By contrast the claypit at Severnside is sited on Estuarine Alluvium.

Meeting Future Requirements

POLICY 35

IN ORDER TO MAINTAIN A SUPPLY OF CLAY FOR BRICKMAKING AT CATTYBROOK BRICKWORKS, PROVISION IS MADE FOR THE WINNING AND WORKING OF CLAY THROUGH THE FOLLOWING PREFERRED AREAS:-

(A) NORTH WEST OF CATTYBROOK CLAYPIT (Inset No. 4 )

(B) SOUTH OF SHORTWOOD CLAYPIT (Inset No. 5 )

7.7 There is no detailed national or regional guidance on future requirements for brick clay. MPG1 makes the following reference only to brick clay:-

"Mineral Planning Authorities should have regard to the need for bricks, tiles and pipes generally and engineering fill and the continuing demand for products with particular physical and aesthetic qualities. Such qualities are mostly the direct result of the physical characteristics of the raw material used which may be available in only a few locations ...Mineral Planning Authorities should consider these special needs, bearing in mind that they will usually involve quite small scale operations, in the light of the social and environmental implications of clay extraction in the area" (Annex B para B14).

7.8 The Cattybrook Brickworks is an important source of local employment, both directly (110 persons employed on the site) and indirectly. In assessing future provision, the approach taken has been to consider the requirements of the brickworks over the Plan period. Brickworks require high capital investment, which in turn requires a long operating life to provide a return on this investment. The Plan, therefore, will make provision to enable at least 20 years of permitted reserves to be maintained
throughout the Plan period at both Cattybrook and Shortwood Clay pits. Both sites are essential to enable Cattybrook Brickworks to continue the production of its current range of bricks.

7.9 The kilns at the Severn Valley Brickworks at Severnside have been removed, and it is not envisaged that the site will reopen as a brickworks. Consequently it is not considered necessary to make provision in this Plan for further clay working at Severnside. Additionally, given that the claypit lies both within the regionally important Severnside Employment area, as defined in the South Gloucestershire Local Plan, and partly within the area of search for a new M49 junction, and is also affected by the proposed realignment of the A403, it is highly probable that alternative use will be made of the claypit site. In terms of mineral resources, Estuarine Alluvium is widely occurring throughout the flatlands close to the Severn Estuary. There is no need, therefore, to protect the clay resource in the Severnside area.

7.10 Cattybrook Claypit, Almondsbury

Due to the complicated geology of the site, operations at the site involve the extraction and blending of various types of “critical clays”, i.e. only those clays that are used in the brick manufacture process, and these are unevenly dispersed and interspersed with non-critical clays and overburden. The site area therefore needs to be of a sufficient size to accommodate both the necessarily selective and piecemeal working of the critical clays, temporary stockpiling and the long term storage of the waste clays and overburden. Accurate reserve estimates of critical clays in the existing claypit are difficult to quantify due to the extent and geology of the deposit. The amount of available reserve depends to a significant extent upon reorganising working and stockpiling arrangements and extending the site to be able to extract reserves which are currently sterilised by stockpiled clays and overburden. Clay resources exist to the north west of the site between Catbrain Wood and the brickworks which are similar to the main quarry area. Including this land within the mineral site would allow for a reorganisation of working arrangements in the short to medium term, and provide a longer term critical clay resource. For the reasons set out above, it is not possible to accurately quantify the extent of the critical clay resource within the existing site or the Preferred Area. However, the Preferred Area provides the opportunity to maximise the extraction of existing critical clay reserves within the existing site and, on this basis, there should be sufficient critical
clay resources from both the existing site and the Preferred Area to maintain at least a 20 year supply of clay for brick production throughout the Plan period.

7.11 Shortwood Claypit, West of Pucklechurch

This claypit has been worked as a satellite site to the Cattybrook Brickworks for many years. At one time there was a brickworks on the site, and a planning permission for a replacement brickworks was never implemented. Only some 40,000 tonnes per annum of red firing clay is won from the site for blending with the clay won from Cattybrook claypit. There is unlikely to be any significant increase in the annual tonnage of clay from Shortwood used within the brick making process. Existing permitted reserves are sufficient for a further 20-25 years. Further proven resources exist to the south of the Claypit which are geologically and ceramically the same as those currently worked, although there is some uncertainty over the viability of the deposit on the east side of Cattybrook Road. In order to maintain permitted reserves at the requisite level, new resources need to be released and it is considered that the land to the west of Cattybrook Road would provide sufficient material for this purpose to maintain at least a 20 year supply of clay for brick production throughout the Plan period. The other proven resources on the east side of Cattybrook Road are safeguarded by virtue of their inclusion within a Mineral Resource Area (Policy 1 and paras 4.5 - 4.8 refer).

7.12 Notwithstanding the acceptance in principle of clay working within the Preferred Areas, any detailed proposals which come forward will still be required to comply with the other policies of the Plan. The text to Inset Maps Nos 4 & 5 indicates particular constraints to working the Preferred Areas which will need to be addressed by prospective operators.

7.13 Outside the identified Preferred Areas, any other planning application will need to demonstrate that there are exceptional circumstances which justify an additional site being brought forward.
CHAPTER 8

Other minerals

Introduction

8.1 This Chapter identifies those minerals, other than crushed rock and clay, which either have been extracted in South Gloucestershire in recent years or have been the subject of exploration. The Local Planning Authority has no information to indicate that there is likely to be a requirement to work these minerals within the Plan period and, therefore, no specific proposals are promoted in the Plan. Should any proposals be received they will be subject to the general policies of the development plan, particularly those set out in Chapter 5 of this Plan concerning the protection of the environment.

Building Stone

8.2 The Oolitic Limestone of the Cotswold hills on the eastern side of Avon provides the building stone (known as Bath Stone) used to maintain the traditional built environment of the Cotswold area, most notably the Georgian buildings of Bath. Within South Gloucestershire the last recorded working of oolitic limestone was in the Marshfield area in the early 1990’s where material was worked for walling stone.

8.3 The scale of demand for building stone is limited and output is very small, often being worked from ‘low key’ extraction operations. Subject to local impact, the Local Planning Authority will support proposals to extract rock for use as building stone in the interests of ensuring the proper maintenance of the traditional built environment. Although, the exact nature and quality of the oolitic limestone resource in South Gloucestershire is not known, the potential for working remains.

8.4 The red pennant sandstone is a traditional building material around the Bristol urban area. Most of the material now used in development and maintenance work is recycled from previous developments or excavated as part of other development work (e.g. Avon Ring Road). Policy 3 supports the recycling of construction and
demolition waste for use as secondary aggregate, and Policy 37 addresses waste re-use and reduction in the design and implementation of all development in South Gloucestershire. In this way, future supplies of pennant sandstone should be secured.

Celestite

8.5 Celestite is a Strontium Sulphate used in pyrotechnics and television tubes. For around a hundred years the Yate area was the world’s leading producer of celestite and represented the only commercial source of this mineral in the UK. Production declined from the late 1960’s until it ceased altogether in the mid 1990’s. The world market is now supplied with celestite sourced from various countries, including Spain, Mexico and China.

8.6 Although there are no extant planning permissions for working this mineral, the potential for workings to recommence in the Yate area must remain. The existence of celestite as a mineral resource has been recognised in defining the Mineral Resource Areas under Policy 1. Past extraction, processing and distribution operations have been small in scale, involving shallow excavations which were easily and quickly backfilled and the land returned to agriculture. Processing involved sorting and picking the mineral on-site, followed by crushing, screening, washing and blending at a centralised plant site.

Coal

8.7 Government guidance (MPG3) was revised in March 1999. This states (para 8) that, in applying the principles of sustainable development to coal extraction, the Government believes that there should normally be a presumption against development unless the proposal meets two tests. Firstly, the proposal must be environmentally acceptable or made so by condition or agreement. Secondly, if this is not possible, local or community benefits must clearly outweigh the likely impact of the proposal. There are additional tests to be met in AONBs and Green Belt and where SSSIs and NNRs will be affected. Appraisal of any proposal against the policies of this Plan must therefore be carried out in this context.
Deep Mining

8.8 The Bristol and Somerset Coalfield underlies much of Avon and was widely mined for several centuries. The Kingswood area was the important early centre for coal mining before the industry moved to deeper and more extensive extraction operations elsewhere in Avon. Since the peak production years of the 1890’s, the industry has steadily declined, with the last operational pit in Avon closing in 1973. The last colliery to be closed in South Gloucestershire was at Harry Stoke. The workable deposits of the Coalfield have effectively been exhausted.

8.9 Since 1973 coal production in Avon has been associated only with the reclamation of colliery spoil tips, most of which are within Bath and North East Somerset Council’s area. In South Gloucestershire the most recent activity has been the partial removal of a colliery spoil heap at Lyde Green, adjacent to the M4, in the mid-1990’s.

Opencast

8.10 In the early 1990’s the then British Coal Opencast Executive carried out prospecting operations in three areas of South Gloucestershire to establish the extent and quality of coal resources which could be worked by opencast methods. Following their investigations British Coal indicated that, although they had established the existence of coal deposits, they were not interested in working any of the areas in the foreseeable future.

8.11 There has been no further interest in opencast working within South Gloucestershire. The intervening years have seen considerable changes, with the privatisation of the coal and power generating industries, an increase in coal imports and a more environmentally-led policy towards opencast extraction. There has been a significant reduction in the amount of land and tonnage approved for opencasting in recent years.

8.12 Government guidance on coal mining (MPG3, para 38) requires mineral local plans to identify particular areas where coal extraction is likely to be acceptable in principle, although the guidance does acknowledge that the ability to identify such areas will depend upon local circumstances and the level of knowledge about resources. The Local Planning Authority does not have sufficient information to be able to define the extent of the shallow coalfield area, so the identification of more specific areas within South Gloucestershire is clearly both impractical and
inappropriate. In the event of an application coming forward for opencast mining, it will be assessed against the national guidance prevailing at the time and the policies in the development plan, particularly those relating to transport and environmental protection.
Waste Management

Introduction

9.1 In simple terms, waste is any material or object which is no longer wanted and requires to be disposed of. Where an object or material is reusable, it is still classified as waste if it has first been discarded. South Gloucestershire Council as Waste Planning Authority is responsible for ensuring that there is an adequate framework in their development plan to enable the establishment of facilities which can manage waste in a way which meets the objectives of sustainable development. The Council is committed to providing such a framework and making its contribution towards the need for waste management capacity in the South West Region.

9.2 This chapter considers the need for waste management provision in South Gloucestershire during the Plan period, and sets out the Council’s policies and proposals for the provision of facilities.

Aims

9.3 The Council’s aims for waste management provision are:-

To reduce the environmental cost of waste management by assessing methods of management using the Best Practicable Environmental Option procedure and taking account of the waste hierarchy;

To make an appropriate contribution towards meeting forecast waste management needs for South Gloucestershire and the South West Region within the principle of regional self-sufficiency and the proximity principle.

Objectives

9.4 The specific objectives in meeting the need for waste management provision are:-

(1) To encourage waste minimisation and re-use through the use of waste audits for new development;

(2) To provide for a network of waste management facilities to allow as much waste as possible to be dealt with according to the Best Practicable Environmental Option and within the framework of the waste hierarchy;

(3) To limit waste management facilities in open countryside;

(4) To secure the restoration of mineral voids where landfill is the BPEO.
**Type and Volume of Waste to be Managed**

9.5 It is widely acknowledged that there remains a dearth of accurate information on the volume of non-municipal waste arisings for individual waste planning authority areas. In March 1996, the outgoing Avon County Council adopted a Waste Management Plan, which had been prepared under Section 50 of the Environmental Protection Act, for the former Avon area. This document was prepared in accordance with the guidance given in draft Waste Management Papers 2/3, and contains data on waste arisings collected in 1993/4 through a sample survey designed to give information which would be statistically significant only at the Avon level. The Waste Management Plan records a total of 5,063,201 tonnes of waste arising in Avon during 1993/4, of which 2,820,791 tonnes was controlled waste.

9.6 The collection and analysis of waste information is now the responsibility of the Environment Agency. It published Strategic Waste Management Assessments (SWMA) for each region in late 2000. The SWMA for the South West, however, does not provide data for waste streams at below county level and, for certain wastes, not below the regional level, nor is the data directly comparable with the Avon Waste Management Plan figures.

9.7 Further work will be necessary to provide waste arisings data and assessments for the unitary authorities in the former Avon area, as well as for other waste planning authorities in the South West. This is recognised in the revised Regional Planning Guidance for the South West, which sets out a strategy that emphasises a sub-regional approach to waste management. However, this strategy is only in its early stages. PPG10 advises waste planning authorities to make the best use that they can of existing information sources, and this Plan has been prepared on the basis of that advice. Consequent to the formulation of regional and sub-regional waste management policies through inter-authority collaboration, the strategy for waste management as set out in this Plan will be reviewed and appropriate waste management sites to deliver the sub-regional strategy will be identified.
Table 4: Waste Arisings in Avon 1993/4 (Tonnes)

<table>
<thead>
<tr>
<th>Waste Type</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household Waste (including civic amenity site waste)</td>
<td>403,470</td>
</tr>
<tr>
<td>Commercial Waste</td>
<td>500,800</td>
</tr>
<tr>
<td>Industrial Waste</td>
<td>859,580</td>
</tr>
<tr>
<td>Inert and Construction &amp; Demolition Waste</td>
<td>965,950</td>
</tr>
<tr>
<td>Other Controlled Waste</td>
<td>90,991</td>
</tr>
<tr>
<td><strong>Total Controlled Waste</strong></td>
<td><strong>2,820,791</strong></td>
</tr>
<tr>
<td>Mines and Quarries Waste</td>
<td>600,000</td>
</tr>
<tr>
<td>Agricultural Waste</td>
<td>1,642,410</td>
</tr>
<tr>
<td><strong>Total Uncontrolled Waste</strong></td>
<td><strong>2,242,410</strong></td>
</tr>
<tr>
<td><strong>TOTAL WASTE ARISINGS</strong></td>
<td><strong>5,063,201</strong></td>
</tr>
</tbody>
</table>

Source: Waste Management Plan 1996, Table 4.1

**Household waste**

9.8 Household waste arising in South Gloucestershire in recent years has been 124,000 - 126,000 tonnes. This will have included an unquantifiable tonnage to household waste recycling sites (formerly known as civic amenity sites) from outside of South Gloucestershire because of the proximity of certain sites to the Bristol urban area. The Council has recently contracted out its responsibilities for the collection, recycling and disposal of household waste. This contract incorporates targets on waste recycling and recovery which aim to reduce waste and significantly increase recycling, and which are consistent with the targets set by the National Waste Strategy and the EC Landfill Directive. The targets of the Council’s waste contract are:

- Recycle 25% of collected household waste by 2003
- Recover 33% of household waste delivered to household waste recycling sites by 2003
- Recover 40% of all household waste by 2005

9.9 In forecasting household waste arisings over the Plan period, the contract targets, longer term national targets on biodegradable waste reduction and the recovery of household waste, and projected dwelling increases have been taken into account. Although waste reduction is an integral part of the contract it is not known how this...
will affect waste arisings. The forecast in Table 5 therefore shows a scenario where waste minimisation practices contain waste to current levels, and a scenario where waste arisings will continue to grow at 3% per annum. By 2011, although forecast waste arising will have significantly increased, household waste requiring final disposal will have fallen to 60-80% of current levels, the difference being met through waste recovery.

**Table 5: Forecast Household Waste Arising**

<table>
<thead>
<tr>
<th></th>
<th>Total Household Waste Arising to (tonnes)</th>
<th>Household Waste to be Recovered (tonnes)</th>
<th>Household Waste Requiring Final Disposal (tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998/9 Actual</td>
<td>126,400</td>
<td>5,300</td>
<td>121,100</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>3% increase</td>
<td>3% increase</td>
<td>3% increase</td>
</tr>
<tr>
<td>2002/3</td>
<td>141,200</td>
<td>153,500</td>
<td>26,900</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>3% increase</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>3% increase</td>
<td>3% increase</td>
<td>3% increase</td>
</tr>
<tr>
<td>2006/7</td>
<td>145,500</td>
<td>178,400</td>
<td>59,700</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>3% increase</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>3% increase</td>
<td>3% increase</td>
<td>3% increase</td>
</tr>
<tr>
<td>2010/2011</td>
<td>149,200</td>
<td>205,900</td>
<td>67,100</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>3% increase</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>3% increase</td>
<td>3% increase</td>
<td>3% increase</td>
</tr>
</tbody>
</table>

**Commercial and Industrial Waste**

9.10 In terms of calculating commercial and industrial waste arising in South Gloucestershire, and in the absence of any other available information, it has been assumed that the waste arising is directly proportional to the percentage of commercial and industrial employment within the Avon area which is located in South Gloucestershire. Applying this assumption to the figures in the Avon Waste Management Plan, commercial and industrial waste arising in South Gloucestershire in 1993/4 totalled around 330,000 tonnes. Using the more up-to-date figures from the Environment Agency’s SWMA, however, commercial and industrial waste arising in South Gloucestershire for 1998 had fallen to 277,000 tonnes. Future waste arisings are difficult to quantify and will depend upon, inter alia, changes in the employment structure, the implementation of the National Waste Strategy, the impact of the Landfill Tax and the implementation of waste minimisation initiatives by the producers. The Waste Management Plan forecast that commercial and industrial waste arisings within the Avon area would fall by 170,000 tonnes per annum by 2004. Taking account of the figures in the Waste Management Plan and the SWMA, and allowing for an increased proportion of commercial and industrial employment in South Gloucestershire, it is reasonable to assume that waste arisings in South Gloucestershire will fall to around 263,000 tonnes by 2004 and that this level will be maintained for the remainder of the Plan period.
9.11 The target in the National Waste Strategy is to reduce the amount of commercial and industrial waste going to landfill to 85% of 1998 levels by 2005. The quantity of South Gloucestershire’s waste arising going to landfill is unknown. The Waste Strategy indicates that, nationally, 50% of commercial and industrial waste is landfilled. Applying this percentage to South Gloucestershire, 138,500 tonnes was landfilled in 1998.

### Table 6: Forecast Commercial and Industrial Waste Arising

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Comm &amp; Ind Waste Arising (tonnes)</th>
<th>Comm &amp; Ind Waste Requiring Final Disposal (tonnes)</th>
<th>Comm &amp; Ind Waste Requiring Recovery (tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993/4</td>
<td>330,000</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>1998</td>
<td>277,000</td>
<td>138,500</td>
<td>138,500</td>
</tr>
<tr>
<td>2005</td>
<td>263,000</td>
<td>117,700</td>
<td>145,300</td>
</tr>
<tr>
<td>2011</td>
<td>263,000</td>
<td>117,700</td>
<td>145,300</td>
</tr>
</tbody>
</table>

**Inert, Construction and Demolition Waste**

9.12 This type of waste is highly variable and influenced by the level of the development and redevelopment/refurbishment taking place. The Landfill Tax has been instrumental in reducing the amount of such waste going into licensed landfill sites, although there has been an increase in the development of exempt sites. The amount of material going to exempt sites is, however, unquantifiable. Coupled with this move away from disposal into licensed sites has been an increase in recycling activities, both on and off-site, and greater awareness in minimising waste production at source and using waste materials in on-site landscaping schemes, etc. For these reasons, it is impossible to forecast construction and demolition waste arising over the Plan period.

9.13 The approach in this Plan, therefore, is to look at recent trends in the management of off-site construction and demolition waste within South Gloucestershire. As this waste does not travel far, it is assumed that the majority, if not all, of the waste which arises in South Gloucestershire is managed within the area. However, due to the proximity of several of the waste management facilities to the Bristol urban area, it is a reasonable assumption that these sites also handle waste which originates from Bristol City.
Table 7: Inert, Construction and Demolition Waste to Licensed Facilities

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Merchant Inert Only Landfill Site</td>
<td>18,834</td>
<td>2,600</td>
<td>39,033</td>
<td>137,332</td>
<td>248,867</td>
</tr>
<tr>
<td>Merchant Non-Inert Landfill Site</td>
<td>171,846*</td>
<td>21,373</td>
<td>5,959</td>
<td>11,419</td>
<td>15,600</td>
</tr>
<tr>
<td>In-House Landfill Site</td>
<td>0</td>
<td>74,929</td>
<td>154,877</td>
<td>78,386</td>
<td>84,853</td>
</tr>
<tr>
<td>Waste Transfer Station</td>
<td>6,854</td>
<td>36,323</td>
<td>63,750</td>
<td>86,813</td>
<td>214,216</td>
</tr>
</tbody>
</table>

* Includes significant amount of inert material imported for engineering of site(s)
(Source: Environment Agency)

9.14 As Table 7 shows, since the introduction of the Landfill Tax there has been a marked decline in inert waste going to merchant inert landfill sites. This is also reflected by the marked decline in inert material going through waste transfer stations. Over the Plan period, therefore, landfill provision will be made at a level which reflects recent inputs to licenced sites, i.e. up to 20,000 tonnes per annum, with an assumption that the level of waste which is disposed of at Landfill Tax exempt sites will continue.

Clinical Waste

9.15 The main clinical waste producer in South Gloucestershire is Frenchay Health Services Trust, who run their own incinerator at Frenchay Hospital. There is also a small pet incinerator at Westerleigh. The Avon Waste Management Plan indicates that there is more than sufficient capacity within the Avon area to deal with forecast clinical waste requirements without the need for further incinerators.

Special Waste

9.16 Special Waste arisings within the former Avon area are either dealt with at special treatment facilities at Avonmouth, or exported for processing, principally to the West Midlands. The Avonmouth facilities also deal with imported wastes. The Avon Waste Management Plan does not identify any requirement for further Special Waste facilities.
Future Requirements for Waste Management Facilities

9.17 The strategy for waste has been developed within the national context set out in Waste Strategy 2000 and PPG10. In the absence of an up-to-date regional context which would allow an analysis of regional self-sufficiency implications for South Gloucestershire, the Council has adopted a flexible approach in its strategy, through the use of criteria-based policies. However, and as set out in para 9.7, the Council recognises that its strategy will require to be reviewed following the formulation of regional and sub-regional waste management policies in response to revised Regional Planning Guidance. A revised strategy will examine the potential for a contribution to regional needs and is likely to include site specific provision. Until such time, the Plan will make adequate provision for the waste arising within South Gloucestershire and enable the waste management industry to bring forward proposals to deal with that waste.

9.18 The strategy and the policies that flow from it allow for a network of waste management facilities to be developed which provide for recycling, composting, recovery (including energy from waste), household waste recycling centres and landfill. All of these are likely to be required in order to manage South Gloucestershire’s waste in accordance with the targets in Waste Strategy 2000. None of the policies seek to restrict facilities to providing solely for South Gloucestershire’s waste, although application of the proximity principle may tend towards this outcome.

9.19 From Tables 5 & 6, the amount of non-inert waste which requires to be managed through the Plan for the period 1999 - 2011 is set out in Table 8 below. Assuming that European, national, and the Council’s own household waste contract targets for reducing landfill, are met, up to 2.3 million tonnes of waste will be dealt with by recovery methods and up to 2.9 million tonnes of waste will require final disposal in the period to 2011. If all the waste requiring final disposal goes to landfill then, using the in-situ density factor of 1 tonne per cubic metre (cu m) for non-inert waste, as used in the Waste Management Plan, this equates to a requirement for 3 million cu m void space.
9.20 For inert waste, there is a requirement for inert only licenced sites to take up to 240,000 tonnes in the period to 2011. Applying the in-situ density factor of 1.5 tonnes per cubic metre for inert, construction and demolition waste, this equates to a void capacity requirement of 160,000cu m.

**Waste Recovery**

9.21 In order to meet the Council’s contract targets for household waste recovery/recycling over the next 5 years SITA, the contract partner, are intending to undertake a number of measures:-

- **Expansion of kerbside recycling and bulky goods;**

- **Upgrading the facilities and increasing the handling capacity of its existing sites:** Kingswood Waste Transfer Station and household waste recycling centre, Cowhorn Depot and the 2 other household waste recycling centres at Yate and Little Stoke (details in Appendix 1). It is proposed that the Kingswood site will become an integrated facility.

- **Developing a waste transfer station at Dean Road, Yate, adjacent to the household waste recycling centre, which already has the benefit of outline planning permission. Again, the proposals at Yate are to integrate the transfer station with the household waste recycling centre.**

- **Provision of a household waste recycling centre to serve the Thornbury/north-west area.**

With the exception of the latter proposal, and which is addressed under Policy 39, there are no requirements for additional land to carry out the proposed development.

9.22 There is also a requirement for a central organic waste facility to be provided. This requirement has not been the subject of any site selection process in the Plan as it post dates the publication of the Revised Deposit Draft Plan. Any sites which come forward, therefore, will be assessed under Policy 38.
9.23 SITA have already made significant inroads into their recovery targets set within the contract, with the improved management and greater segregation of materials at their sites. They achieved a 12% recovery rate for all household waste in 2000/1, and the rate so far for 2001/2 is significantly higher again. Recovered waste from the household recycling centres (formerly civic amenity sites) was 26% in the first year and indications are that, if present rates are sustained, the second year will see the target being well exceeded.

9.24 The longer term targets for municipal waste recovery (2010 and beyond) as set out in Waste Strategy 2000 are unlikely to be achieved without the use of additional technologies, probably involving energy recovery. This will be a matter for the sub-regional strategy and the subsequent review of the Plan to address, for subsequent inclusion in the 5 yearly review of the Council’s contract with SITA. Should there be a requirement for such a facility before then, the criteria in Policy 41 will apply.

9.25 Unlike household waste, the projected recovery rate for commercial and industrial waste is only marginally higher than current recovery rates. Consequently, there is no need to make specific provision for further facilities within the Plan. Existing facilities are listed in Appendix 1.

**Landfill**

**Table 9 Landfill Void Capacity as at 1.4.99**

<table>
<thead>
<tr>
<th></th>
<th>Non-Inert</th>
<th>Inert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permitted &amp; Licensed</td>
<td>2,270,000cu m</td>
<td>216,000cu m</td>
</tr>
<tr>
<td>Permitted &amp; Awaiting Licence Issue/Application</td>
<td>5,000,000cu m</td>
<td>230,000cu m</td>
</tr>
</tbody>
</table>

(Source: South Gloucestershire Council/Environment Agency)

9.26 In order to meet forecast requirements for non-inert landfill sites, there is no requirement to make additional provision in the Plan, provided that a licence is issued for the site which has the 5 million cu m void capacity (Churchwood). In addition to the capacity in Table 9, a planning application, which has been approved subject to the completion of a S106 Agreement, would release a further 1.8 million
cu m. of void space (Shortwood Claypit). Should the Churchwood Quarry proposal not have been issued with a waste management licence by the time the planning permission expires in 2003, it will be necessary to reassess the waste management strategy for South Gloucestershire and the need for further void space. This will be addressed through a review of the Plan.

9.27 The available void space for inert, construction and demolition waste has sufficient capacity to meet forecast requirements for the duration of the Plan period.

The Waste Hierarchy

9.28 The Waste Hierarchy is a conceptual framework which acts as a guide to the waste management options which should be considered when assessing the Best Practicable Environmental Option (BPEO). This hierarchy is:-

- reduction (reducing the generation of waste)
- re-use (the re-use of products and materials for the same or a different purpose)
- recovery (recovering value from waste through recycling, composting or energy recovery)
- safe disposal

POLICY 36

PROVISION WILL BE MADE FOR THE DEVELOPMENT OF FACILITIES TO ENABLE THE MANAGEMENT OF FORECAST WASTE ARISINGS IN SOUTH GLOUCESTERSHIRE AND, AS APPROPRIATE, THE SOUTH WEST REGION IN THE PERIOD TO 2011. PROVISION WILL BE MADE IN ACCORDANCE WITH THE BEST PRACTICABLE ENVIRONMENTAL OPTION AND WITHIN THE FRAMEWORK OF THE WASTE HIERARCHY.

9.29 The Aims of this Plan in respect of waste management reflect the Government’s National Waste Strategy. At the very top of this hierarchy is a reduction in the amount of waste that needs to be managed. This is followed by re-use of waste and the recovery of value from it. As a land-use planning authority, the Council can have only a limited influence on waste minimisation and re-use. At the bottom end of the hierarchy, the priority is to ensure the safe disposal of residual waste, and other waste for which such management options represent the Best Practicable Environmental Option (BPEO), in an environmentally acceptable manner.

9.30 Waste should be treated or disposed of close to the point at which it is generated (the ‘proximity principle’). The main reasons for advocating this are to encourage those
who create waste to take more responsibility for it, and to limit the environmental impact of transporting waste. Additionally it may assist the local economy and should lower overall costs. Ensuring that waste is managed close to where it arises also contributes to achieving regional self-sufficiency in waste management within the South West Region. These principles are reflected in the Joint Replacement Structure Plan for the Avon area. Policy 36 reflects these principles and the Council’s commitment to providing a network of facilities for the management of forecast waste arisings in South Gloucestershire and an appropriate contribution towards forecast waste management requirements in the South West Region.

Waste Reduction and Re-use

POLICY 37

PLANNING APPLICATIONS FOR CONSTRUCTION AND ENGINEERING PROJECTS WHICH WILL GENERATE WASTE AS PART OF THE DEVELOPMENT PROCESS ITSELF WILL ONLY BE PERMITTED WHERE:

(A) OPPORTUNITIES FOR WASTE REDUCTION AND RE-USE IN THE DEVELOPMENT PROCESS HAVE BEEN ADEQUATELY ADDRESSED AND INCORPORATED, AS APPROPRIATE, INTO THE DEVELOPMENT PROPOSALS; AND

(B) ON-SITE WASTE RE-USE PROPOSALS DO NOT PREJUDICE THE OVERALL ACCEPTABILITY OF THE DEVELOPMENT.

9.31 Reducing the amount of waste which is produced, or by diverting potential waste from disposal, not only cuts down on the amount of waste which requires managing but also reduces the environmental impacts of waste disposal. The process of development itself is a generator of significant volumes of waste material. This is distinct from the operational aspects of the development. Accommodating waste collection requirements and recovery/recycling facilities in the development itself are addressed by the design policy in the South Gloucestershire Local Plan. In the exercise of its development control function the Council will encourage developers to think positively and imaginatively about waste issues in the design and implementation of their schemes, including looking at opportunities for re-using rather than demolishing existing buildings. However, incorporating waste in a way which is not integral to the design of the development is unlikely to be acceptable. Bunding, for example, if not carefully designed, positioned and constructed, can
cause surface water run-off problems and soil erosion, as well as being visually intrusive and an obstruction. Further details on design are set out in the Council’s design policy in the South Gloucestershire Local Plan. ‘Making Waste Work’ refers to the findings and recommendations of DoE commissioned research into the role and future possibilities for the use of secondary and recycled materials in construction. Included amongst these are references on: the need for planning applications for development to be supported by information on likely waste arisings and the means of disposal; the need to find ways of recycling the quantities of wood, metal and plastics found in demolition and construction waste; and the need to encourage on-site waste minimisation and re-use as a waste management option.

9.32 The Council wishes to see planning applications which involve either the redevelopment of existing sites or groundworks on greenfield sites accompanied by a waste audit. The Council does not consider it appropriate to set thresholds below which such an audit will not be sought as any threshold is by definition arbitrary and, more importantly, all developers should be encouraged to ‘think minimisation’. An audit will not be sought, however, for householder applications or for change of use applications which do not involve major structural alteration.

9.33 Applicants are advised to discuss the need for and the contents of the audit as early as possible. The waste audit should provide details of the type and volume of waste that will arise from the development, what uses are to be made of that waste on-site, what means are to be utilised to reduce the volume requiring final disposal and the final destination for the residual waste. It should also give details where waste may need to be imported for, for instance, surcharging of land prior to construction. Where waste is to be disposed of off-site, the Council will be looking for methods of managing this waste which are consistent with national guidance. Supplementary Planning Guidance on waste audits will be produced in due course, to provide developers with more information on reducing/re-using waste in the development process and off-site disposal. A cross-reference to Policy 37 is included in the South Gloucestershire Local Plan, to make developers aware of the policy and the forthcoming Supplementary Planning Guidance.

9.34 The Council recognises that at the outline planning application stage, where the overall principle of development is being established, a meaningful waste audit may not always be feasible. In these circumstances, a planning condition will be imposed seeking an audit at the detailed planning stage.
**Waste Recovery**

9.35 In order to increase the amount of waste managed towards the top end of the hierarchy, society as a whole, and the waste management industry in particular, will need to develop ways of minimising the amount of waste which goes to final landfill. Waste recovery is a method, along with waste minimisation and re-use, which reduces the need for landfill, by finding beneficial uses for waste. Processes and facilities which enable waste recovery include:

- recycling of construction and demolition waste
- materials recovery facilities
- scrap yards and metal recovery facilities
- waste transfer stations
- civic amenity sites
- composting
- energy recovery from combustion
- energy recovery from developing technologies, such as anaerobic digestion and pyrolysis
- energy recovery from landfill gas production

9.36 In order to meet the various targets which have been set to reduce the amount and nature of the waste going to landfill, there will be an increasing requirement for facilities, both to manage the waste which is diverted from landfill, and to treat that waste which is to be landfilled. Criteria-based policies have been identified in the Plan to assist the waste management industry in bringing forward acceptable proposals for waste recovery. Although specific sites have not been identified for waste recovery, it is recognised that the need for new facilities and sites will become of increasing importance as existing facilities reach capacity and landfill void space decreases. This situation will, therefore, be kept under review and the Plan revised accordingly as regional and sub-regional waste strategies are formulated and requirements for waste management facilities emerge.

(A) Materials Recovery and Recycling

**POLICY 38**

PROPOSALS FOR PERMANENT FACILITIES TO RECOVER MATERIALS OR RECYCLE WASTE, OTHER THAN CONSTRUCTION AND DEMOLITION WASTE
FOR USE AS SECONDARY AGGREGATE, WILL BE PERMITTED PROVIDED THAT:

(A) IT IS LOCATED WITHIN AN EXISTING EMPLOYMENT SITE OR AREA, OR INVOLVES THE RE-USE OF AN EXISTING RURAL BUILDING; AND

(B) THE SITE IS EITHER CLOSE TO THE SOURCE OF THE WASTE AND/OR THE MARKET FOR THE RECOVERED/RECYCLED MATERIAL; AND

(C) WHERE APPROPRIATE, MAXIMUM POSSIBLE USE IS MADE OF NON-ROAD TRANSPORTATION FOR THE RECEIPT OF THE WASTE TO BE MANAGED AND THE DISTRIBUTION OF THE OUTPUTS OF THE WASTE MANAGEMENT PROCESS; AND

(D) THE PROPOSAL, INCLUDING ANY OPEN AIR STORAGE OR PROCESSING OF WASTE MATERIAL, WOULD NOT HAVE AN UNACCEPTABLE EFFECT UPON THE AMENITY OF USERS OF PROPERTY OR LAND IN THE VICINITY OR THE ENVIRONMENT.

WHERE A PROPOSAL IS LOCATED AT A LANDFILL OR MINERAL SITE, THE LOCAL PLANNING AUTHORITY WILL NEED TO BE SATISFIED THAT THE SCALE AND EFFECT OF THE RECOVERY/RECYCLING OPERATIONS CAN BE UNDERTAKEN WITHOUT CONFLICTING WITH OR UNREASONABLY DELAYING THE IMPLEMENTATION OF THE CURRENT RECLAMATION SCHEME FOR THE SITE.

9.37 Although the range of potential facilities for material recovery and recycling is very wide there are many common features. Increasingly the process is housed in a modern industrial style building with no, or minimal, outside storage of materials. Processes too are essentially industrial in nature. The raw materials (i.e. waste) are brought onto the site, the processed products (i.e. recovered / recycled materials) are taken elsewhere for finishing or final sale and the residual waste is disposed of. Temporary facilities, which will generally constitute permitted development, will fall outside the scope of Policy 38.

9.38 Transportation of materials is a key issue in the location of waste processing facilities. Whilst rail and water transport will be encouraged, the proximity principle
suggests that the majority of trips will be by road. Good access to the principal highway network is therefore essential, as is the need to avoid any detrimental impact on residential amenity from increased road traffic movements.

9.39 Recovery and recycling facilities generally involve use of machinery, both inside and out of any buildings. Noise and dust are therefore important amenity issues. Visual impact will also be relevant where larger scale activities are proposed and where the activity involves outside storage and working/circulation areas.

9.40 In view of the highway, environmental and amenity constraints to locating waste processing facilities, the most appropriate locations for permanent recovery/recycling facilities will generally be within existing employment sites or areas with industrial uses. Although individual plots may be available for development or redevelopment, the flexibility of modern buildings offers opportunities for reuse for appropriate waste management processes. Certain facilities, however, may be incompatible with sensitive land uses on industrial sites, such as business parks, clean industries and food manufacturing. In rural areas, facilities which re-use an existing building may be acceptable provided that associated outdoor storage and activity is limited to prevent visual intrusion.

9.41 Landfill sites, household waste recycling centres and quarries are also ‘employment sites’ for the purpose only of Policy 38. Where any facility is provided at a landfill or mineral site, then the effects of any delay to site restoration will need to be assessed.

Construction and Demolition Waste Recycling Facilities

9.42 The recycling of construction and demolition waste for use as secondary aggregate is dealt with under Policy 3 since re-use of this material as a secondary aggregate reduces the need for primary-won mineral.

Materials Recovery Facilities

9.43 These facilities are used to sort mixed wastes, usually commercial and industrial, to enable the recovery of those wastes which can be re-used or recycled. The residues are then sent for disposal. There are no purpose built facilities at present in South Gloucestershire although a small facility operates at one of the Council’s depots and an unimplemented planning permission exists at another.
Scrap Yards and Metal Recovery Facilities

9.44 The recovery of metals for recycling and components for re-use is a well established activity, although it has a traditional reputation as a bad neighbour development, due to noise and unsightly outside storage areas. There are 7 premises situated throughout South Gloucestershire. The majority operate under longstanding planning permissions or certificates of lawful use or development and 4 are specifically licensed by the Environment Agency. Some facilities are in locations which are inappropriate by the environmental standards of today. Relocation to appropriate sites and premises in accordance with Policy 38 is encouraged.

Waste Transfer Stations

9.45 Policy 3 refers to the role that waste transfer stations can play in the recovery of secondary aggregates, but they have a role too in the recovery of other materials from the waste gathered by, in particular, the commercial waste collection services. At present there are 3 general waste transfer facilities in South Gloucestershire, at Filton, Yate and in association with the household waste recycling facility at Carsons Road, Mangotsfield.

Household Waste Recycling Facilities

POLICY 39

PROPOSALS FOR HOUSEHOLD WASTE RECYCLING FACILITIES WILL BE PERMITTED WHERE:

(A) THE SITE IS ACCESSIBLE TO THE CATCHMENT POPULATION IT IS INTENDED TO SERVE;

(B) THE SITE IS LOCATED WHERE THE LENGTH OF MOTORISED JOURNEYS CAN BE MINIMISED;

(C) THE TRAFFIC ASSOCIATED WITH THE DEVELOPMENT WOULD NOT UNACCEPTABLY AFFECT HIGHWAY SAFETY; AND

(D) THE USE WILL NOT HAVE AN UNACCEPTABLE IMPACT ON RESIDENTIAL/LOCAL AMENITY.
9.46 Household Waste Recycling centres are facilities provided by South Gloucestershire Council to receive waste delivered by householders. Typically they include a range of skips and containers which allow certain waste types to be separated for recycling, etc, although any subsequent sorting or processing usually takes place elsewhere. There are 3 sites in South Gloucestershire, at Yate, Little Stoke and associated with the transfer station at Carsons Road, Mangotsfield. Availability to the catchment population is a critical factor and the Waste Management Plan states that consideration should be given to the provision of one household waste recycling centre within a 5 mile travelling distance of major population centres in Avon. In South Gloucestershire the closure of the facility at Harnhill landfill site has meant that provision in the Thornbury area is deficient. The Council has not, however, been able to identify any available space on Thornbury Industrial Estate, and the Green Belt and Coastal Zone around Thornbury further restrict the area of search for a potential site.

9.47 The Council has also identified a requirement to enhance household waste recycling centre provision in the Emersons Green area. However, it is unlikely that provision can be made in association with the identified landfill site at Shortwood Claypit (Policy 42 and Inset Map No. 5) and the Council has not been able to identify a suitable site. Any proposals for household waste recycling centres which come forward, therefore, will be assessed against the criteria in Policy 39, in addition to the other policies in this Plan.

(B) Composting

POLICY 40

PROPOSALS FOR THE OUTDOOR COMPOSTING OF GREEN WASTE WILL BE PERMITTED ONLY WHERE :-

(A) THE IMPACT ON HIGHWAY SAFETY, SURROUNDING LANDUSES AND THE LANDSCAPE WOULD BE ACCEPTABLE; AND

(B) UNACCEPTABLE LEVELS OF ENVIRONMENTAL POLLUTION WOULD NOT RESULT; AND WHERE WASTE DELIVERY BY THE GENERAL PUBLIC IS INVOLVED:

(C) THE SITE IS ACCESSIBLE TO THE CATCHMENT POPULATION IT IS INTENDED TO SERVE; AND
9.48 Composting of organic materials can reduce the volume of household waste that requires disposal. As with most waste treatment processes there are a range of technologies available. Sophisticated and mechanised systems are housed in modern buildings. Less capital intensive processes, such as the windrow system, take place principally in the open air. Key elements in the viability of such processes are the availability and transport of the raw material and the availability of markets for the product, generally as a soil conditioner. Household waste recycling centres and landfill sites are often the most suitable location for such facilities, as the public will either bring green waste compost direct to the site, or the segregated green waste will be brought to site via household waste recycling centres or the door-to-door refuse collection system. Policy 40 is concerned only with the outdoor composting of green waste. Proposals which involve composting in buildings or containers, etc fall to be considered under Policy 38.

9.49 A key consideration in the siting of composting schemes is the impact on the highway network, particularly if the success of the venture relies to any degree on the direct delivery of green waste by the general public.

9.50 In addition to traffic, large scale composting has potential problems with odours, groundwater pollution, noise and emissions. Composting can be carried out inside a building with air extraction, thereby lowering emission levels in the open. Outdoor composting needs to be situated where emissions will not have an adverse effect on surrounding landuses. The types of waste to be composted will have a significant bearing on the suitability of a location. Certain wastes, such as sewage sludge and food wastes, can be malodorous. Properly managed botanical waste only schemes have considerably less potential to cause odour.

9.51 As the scale of composting schemes can vary enormously and the bringing forward of sites tends to be opportunistic (e.g. availability of an area of concrete hardstanding, requirement for restoration material or agricultural soil improver), the Plan does not propose specific sites. It does recognise however that, in principle, such uses are appropriate at landfill sites and household waste recycling centres.
(C) Energy From Waste

POLICY 41

PROPOSALS FOR THE RECOVERY OF ENERGY FROM WASTE, OTHER THAN LANDFILL GAS COLLECTION, WILL BE PERMITTED PROVIDED THAT:

(A) THE FACILITY IS LOCATED WITHIN AN EXISTING EMPLOYMENT SITE OR AREA;

(B) THE SITE IS EITHER CLOSE TO THE SOURCE OF THE WASTE AND/OR THE MARKET FOR THE RECOVERED ENERGY;

(C) WHERE APPROPRIATE, MAXIMUM POSSIBLE USE IS MADE OF NON-ROAD TRANSPORTATION FOR THE RECEIPT OF THE WASTE TO BE PROCESSED;

(D) THE OPPORTUNITY TO SECURE ENERGY RECOVERY AND ITS PRODUCTIVE USE HAS BEEN MAXIMISED IN THE PROPOSAL; AND

(E) THE PROPOSAL WOULD NOT HAVE AN UNACCEPTABLE EFFECT UPON THE AMENITY OF USERS OF PROPERTY OR LAND IN THE VICINITY, OR ON THE ENVIRONMENT.

9.52 In the past, incineration has represented the main alternative disposal option to landfill for combustible household, commercial and industrial waste (municipal waste) and is a well-established technology for recovering energy from such waste. It may also represent the best practicable environmental option for other waste streams, such as clinical waste and some chemical waste. There is, however, still a landfill requirement to dispose of the residues remaining after incineration.

9.53 Waste can be incinerated, either by using the calorific value of waste itself to support combustion or, for lower calorific value wastes, by using a support fuel. The waste combustion process can also generate electricity and, sometimes, heat which can be used in close-proximity to the plant. Incinerators can be divided into two broad categories - mass burn and specialised. Mass burn is applicable to municipal waste, whereas specialised incinerators are dedicated to a single waste stream. However, like all waste management facilities, incineration with energy recovery does have the potential to pollute the environment. Stack emissions from the combustion process
can contain toxic and acidic components. Bottom ash from the furnace contains pollutants which require safe disposal to land.

9.54 A municipal waste incinerator was in operation at Avonmouth for some 20 years but closed following the introduction of new EC environmental standards. With respect to smaller specialised incinerators, there is a domestic pet incinerator at Pucklechurch.

9.55 However, with technological advances and changes in economics, smaller scale plants which reduce the volume of waste and also enable energy to be recovered may become feasible. Developing technologies include Gasification, Pyrolysis and Anaerobic Digestion. Instead of burning the waste, these processes, which are carried out in containers, either accelerate the natural decomposition of waste and collect the gases which are given off, or break down the waste into fuels. These technologies are expected to come into greater prominence over the next decade and make a significant contribution to an integrated waste management strategy. Recycling and other recovery methods by themselves are unlikely to be able to deal with all the untreated waste which will have to be diverted from landfill in order to meet national waste targets. When the Plan is reviewed following the formulation of regional and sub-regional waste strategies, the Council will reassess the appropriateness of allocating land for an energy from waste facility. Until then, the criteria in Policy 41 will be applied should any such proposal come forward.

9.56 In assessing proposals for the recovery of energy from waste, siting is a major consideration. Proximity to the source of the waste and the environmental implications of transporting the waste and access/linkages to the transport network will need to be carefully assessed. In view of environmental and amenity constraints, the most appropriate locations for such facilities will be within existing employment sites or areas with industrial uses. Where there is an associated chimney stack or other significant structure which is visually intrusive, a location in a rural area is unlikely to be acceptable. Proposals will be required to maximise the opportunity for energy recovery and the productive use of this energy as an integral part of the planning application. The impact of emissions will be taken into account in determining planning applications where it has land use implications.

9.57 Landfill gas recovery has been addressed in para 5.83 and will be a requirement of proposals involving the disposal of waste to land (see Policy 42).
**Landfill**

9.58 The disposal of waste by landfilling is at the bottom of the waste hierarchy, reflecting the potential environmental problems associated with this method of waste management. Nevertheless, reducing the amount of waste going to landfill is compatible with its continued use as a viable waste management option and landfilling will remain the BPEO for certain wastes in certain circumstances. It may also provide a mechanism for restoring mineral voids and derelict and despoiled land, where this form of waste management represents the BPEO at the particular time.

9.59 For the avoidance of doubt, landfill also includes landraising, which is the deposit of waste on land to levels which are higher than original ground contours. This may be achieved in conjunction with landfilling of an excavation in order to supplement the available void, or may be linked to the remediation of derelict or despoiled land. Landraising may also create an opportunity to provide a waste disposal facility close to arisings (PPG10).

(A) Household, Commercial and Industrial Waste

POLICY 42

IN ORDER TO MEET FORECAST REQUIREMENTS OVER THE PLAN PERIOD, PROVISION IS MADE AT SHORTWOOD CLAYPIT FOR THE DISPOSAL OF HOUSEHOLD, COMMERCIAL AND INDUSTRIAL WASTE BY LANDFILLING. ELSEWHERE, THE DISPOSAL OF HOUSEHOLD, COMMERCIAL AND INDUSTRIAL WASTE TO LAND WILL NOT BE PERMITTED UNLESS IT IS FOR:-

(A) SMALL-SCALE EXTENSIONS TO EXISTING OPERATIONAL LANDFILL SITES, WHERE THERE ARE VALID OPERATIONAL REASONS OR OPPORTUNITIES TO SECURE ENVIRONMENTAL BENEFITS; OR

(B) RENEWALS OR ALTERATIONS TO EXISTING PLANNING PERMISSIONS, WHERE THERE ARE VALID OPERATIONAL REASONS, OR THERE IS AN OVERRIDING NEED BECAUSE OF A SHORTAGE OF VOID SPACE AND DISPOSAL TO LAND REPRESENTS THE BPEO.

WHERE APPROPRIATE, PROVISION FOR THE RECOVERY OF LANDFILL GAS FOR USE AS AN ENERGY SOURCE WILL BE REQUIRED.
As recognised in para 9.26 there is no requirement to make additional provision in the Plan for landfill void space to meet South Gloucestershire’s forecast arisings for household, commercial and industrial waste, provided that a waste management licence is issued for the Churchwood landfill site, as this site has 5 million cu m void capacity. The Plan does, however, identify Shortwood Claypit as a landfill site. Planning permission for landfilling at this site has been approved subject to the completion of a S106 Agreement. Shortwood Claypit would release 1.8 million cu m of void space.

In the absence of any identified need for further landfill void space, it follows that proposals elsewhere for the disposal of waste, including renewals and alterations of existing permissions, should be restricted. Acceptable exceptions are small-scale extensions to existing operational sites which can be justified in operational terms, or which would secure environmental benefits. For example, some change in technology or legislation could require re-profiling of a site which, in turn, results in the need for a vertical/horizontal extension to the site. Since landfill is at the bottom of the waste hierarchy, it is appropriate to examine the need for landfill against other forms of waste management even where planning permission has been granted in the past. Renewals and alterations to existing planning permissions will only be acceptable for operational reasons or where there is an overriding need for landfill void space. In the latter instance, the Council will need to be satisfied that disposal to land is the BPEO for that particular waste stream.

In order to make the best use of waste that is produced, the extraction and utilisation of energy in landfill gas will be required in landfill proposals provided that it would not result in any adverse impact on the environment or local amenity.

(B) Inert, Construction and Demolition Waste

POLICY 43

PROPOSALS FOR THE DISPOSAL OF INERT, CONSTRUCTION AND DEMOLITION WASTE TO LAND, WILL ONLY BE PERMITTED:

(A) TO SECURE THE RESTORATION OF BARNHILL QUARRY, CHIPPING SODBURY AND TYTHERINGTON QUARRY (NORTH FACE);
(B) FOR SMALL-SCALE EXTENSIONS TO EXISTING OPERATIONAL LAND
FILL SITES, WHERE THERE ARE VALID OPERATIONAL REASONS OR
OPPORTUNITIES TO SECURE ENVIRONMENTAL BENEFITS;

(C) FOR ACCEPTABLE AGRICULTURAL LAND IMPROVEMENT WORKS OR
ENVIRONMENTAL BUNDS; OR

(D) TO SECURE THE RESTORATION AND BENEFICIAL AFTERTUSE OF
DESPOILED OR DERELICT LAND

9.63 There is no requirement over the Plan period for further capacity to be made
available to meet forecast inert waste arisings within South Gloucestershire.
This Policy, therefore, seeks to allow the disposal of inert material to land where this
would secure some environmental benefit.

9.64 The Council is committed to the positive use of waste which must be disposed of to
land in order to achieve environmental benefits. The filling of quarry voids with inert
material which is of low pollution potential, is generally acceptable in circumstances
where biodegradable or non-inert material would not be acceptable or appropriate.
It should be recognised, however, that due to the size of the hard rock voids in South
Gloucestershire and the limited availability of inert material nowadays, as a result of
the increased re-use and recycling of these materials and the provisions of the
Landfill Tax, only partial fill of the quarry voids would be likely, to bring the void
above the level of the water table and so enable a dry restoration scheme to be
implemented. Filling to original ground level is unlikely to be feasible or acceptable,
given the quantities of material that would be required, as it would either take a very
long time, or give rise to significant environmental concerns, particularly in respect
of traffic and the impact on nearby housing, if a more intensive operation was
proposed. Barnhill Quarry and Tytherington Quarry (North Face) are identified as
sites which could be restored through the importation of inert material. The
proximity of existing housing and the risk from the migration of landfill gas are
significant constraints to the suitability of Barnhill Quarry for the disposal of
biodegradable waste. The principle of disposing of inert waste at North Face has
already been established by a planning permission granted in 1999, although this
was solely for waste importation by rail. The Council will be looking for any future
scheme for disposing of inert waste at Tytherington (North Face) to also maximise
the use of rail.
9.65 Over the years within the former Avon area, including South Gloucestershire, there have been a number of applications for landraising proposals. The Council’s policy towards waste development in the Green Belt is set out in Policy 9 and paragraphs 5.27 - 5.32. It is only within the open countryside beyond the Green Belt that landraising proposals may be considered acceptable. However, they would not then accord with the proximity principle, being remote from the major sources of waste arisings. Although the Council considers, in line with PPG10, that landraising could secure the beneficial use of disturbed land, the opportunity for securing such improvements outside the Green Belt is extremely limited due to the absence of any significant areas of disturbed land and the proximity principle.

9.66 The Council receives a significant number of landraising proposals where the grounds for the development are either agricultural improvement or bunds which would have an environmental benefit, for example, by reducing noise or visual intrusion. Where these proposals can be justified, then such development may be acceptable in principle and Policies 44 & 45 set out the criteria for assessing such proposals. The Council considers that there may be other circumstances where the disposal of inert waste would secure the beneficial restoration of derelict or degraded land.

**Agricultural Land Improvement**

**POLICY 44**

PROPOSALS FOR THE IMPROVEMENT OF AGRICULTURAL LAND BY THE DEPOSIT OF IMPORTED WASTE MATERIAL WILL BE PERMITTED ONLY WHERE:

(A) THE MATERIAL TO BE DEPOSITED IS INERT WASTE; AND

(B) THE IMPROVEMENT IS NECESSARY FOR THE PURPOSES OF AGRICULTURE; AND

(C) THE IMPROVEMENT CANNOT PRACTICABLY BE ACHIEVED BY OTHER AGRICULTURAL LAND MANAGEMENT PRACTICES; AND

(D) THE VOLUME OF WASTE TO BE DEPOSITED IS THE MINIMUM NECESSARY TO ACHIEVE THE IMPROVEMENT AND AN APPROPRIATE FINAL LANDFORM.
Within the countryside, proposals are often put forward for the improvement of agricultural land through the deposit of waste. Often the parcels of land involved are quite small. There is, however, no Government guidance to support a general improvement in agricultural land quality.

The Council takes the view that agricultural improvement through the deposit of waste materials is only justified where a genuine agricultural case can be demonstrated. It is often argued in support of such proposals that the land is “derelict”, when in reality it has suffered from neglect and poor farming practice. There will need to be a very specific justification for tipping as the only method of returning such land to agricultural production. The effect of proposals on wildlife habitats and the landscape will need to be assessed. The effects of changes to ground levels and ground contours on drainage patterns, flood plains and flooding regimes will also require to be addressed and mitigated for where appropriate.

Environmental Bunds

**POLICY 45**

PROPOSALS FOR THE CONSTRUCTION OF ENVIRONMENTAL BUNDS UTILISING WASTE MATERIAL WILL BE PERMITTED ONLY WHERE:

(A) THE MATERIAL TO BE DEPOSITED IS INERT WASTE; AND

(B) THE PURPOSE OF THE BUND IS CLEARLY JUSTIFIED, WITH FULL TECHNICAL DATA WHERE APPROPRIATE; AND

(C) THE VOLUME OF WASTE DEPOSITED IS THE MINIMUM NECESSARY TO ACHIEVE THE PURPOSE AND AN APPROPRIATE FINAL LANDFORM.

The Council has dealt with a number of proposals for environmental bunds. Bunds which are an integral part of a development proposal are not the subject of Policy 45. The design and construction of these bunds should be addressed at the site planning stage and fall to be considered, along with the other aspects of the development proposal, under the provisions of the South Gloucestershire Local Plan.

In all other cases there will need to be a sound technical justification for the proposal. Claimed benefits in terms of noise reduction, reduction in wind blown spray, ecological benefits arising, visual benefits, etc. will need to be quantified and clearly
demonstrated in supporting documentation. The Council will expect the bund to be constructed to a profile and a standard which enables the bund to be satisfactorily integrated into the surrounding landscape. The impact of a proposal on wildlife will also need to be assessed. The effects of the changed landform on drainage patterns, flood plains and flooding regimes will also require to be addressed and mitigated for where appropriate.
CHAPTER 10

Other Issues

Implementation

10.1 The Minerals and Waste Local Plan forms part of the Development Plan. It provides guidance to industry indicating the locations and circumstances in which development might or might not be acceptable. The responsibility rests with the industry to bring forward acceptable working and, where appropriate, restoration proposals.

10.2 This Plan provides the planning context within which South Gloucestershire Council will exercise its development control functions in respect of minerals and waste development and in respect of other forms of development which might impinge upon mineral and waste planning matters, such as the sterilisation of mineral resources.

Monitoring

10.3 There are two aspects which require monitoring:

1. the performance of the policies and proposals of the Plan; and

2. unauthorised development and non-compliance with planning controls

10.4 The performance of the Plan will be monitored to assess whether the policies and proposals help to achieve the objectives of the Plan. The Plan will also need to be monitored, inter alia, in relation to future planning guidance, changes in the supply and demand for minerals and the national waste strategy, so that it remains up-to-date. The Local Planning Authority will monitor the implementation of the Plan’s policies and proposals and review the Plan as appropriate.

10.5 It is essential to ensure that operations are being carried out in accordance with approved planning conditions and legal agreements. Where a breach of planning control takes place, and negotiation fails to remedy the breach, the Local Planning Authority has the power to take enforcement action. Where expedient the Local
Planning Authority will exercise its discretion in the use of enforcement powers and will, if necessary, serve enforcement or stop notices, or serve injunctions, in respect of a contravention of planning conditions.

10.6 Local Planning Authorities are not the only organisations concerned with the monitoring of mineral and waste planning permissions. The Environmental Health Authorities and the Environment Agency are responsible for implementing the provisions of the Control of Pollution Act 1974 and the Environmental Protection Act 1990 (EPA). Certain aspects of pollution control are the responsibility of the Environment Agency and, in most cases, waste management facilities cannot lawfully operate without also having a Waste Management Licence under the EPA, or an Integrated Pollution Prevention and Control (IPPC) Permit under the Pollution Prevention and Control Regulations 2000. The Quarries National Interest Group (part of the Health and Safety Executive) has a duty to enforce the law as it relates to health and safety matters at quarries. The Local Planning Authority will exercise its duty and powers in co-operation with the bodies set out above wherever practical and appropriate.

Review of Mineral Workings

10.7 Mineral planning authorities have duties under the Planning and Compensation Act 1991 and the Environment Act 1995 to review mineral planning permissions and to improve operating and environmental standards, in order to ensure that all permissions have an up-to-date set of working and restoration conditions. The 1991 provisions concerned the formal registration of Interim Development Orders (IDO) for mineral working which were originally granted between 1943 and 1948 with few, if any, planning conditions. Within South Gloucestershire the IDO permissions represent the backbone of all but one of the active production units in the area, the exception being the IDO area at Wickwar Quarry which is effectively worked out and the subject of an extant planning permission for landfill. At the initial registration stage in 1992, 12 IDO permissions were registered as valid, 8 of which were classified as ‘active’ permissions and 4 as ‘dormant’ permissions. Schemes of conditions have been submitted by operators in respect of all ‘active’ and 2 ‘dormant’ permissions.

10.8 The Environment Act 1995 has placed a duty on mineral planning authorities to revise conditions for all mineral permissions granted between 1948 and 1982 over the next few years, with further provisions in the Act providing for all planning permissions to be subject to a 15 year rolling programme of review. Within South
Gloucestershire, 5 quarries are the subject of mineral permissions which fall to initial review under the Environment Act. Of these, 4 are identified as ‘active’ Phase I sites (i.e. sites where the greater part of the land was granted permission before 1 April 1969) with the fifth being an ‘active’ Phase II site (i.e. a site where the greater part of the land was granted permission after 31 March 1969 and before 22 February 1982).

10.9 The limestone quarries of South Gloucestershire have generally been worked for many years and there has been little restoration work undertaken. The Council considers that the legacy of these past workings together with current and future proposals needs to be addressed in a comprehensive manner. In parallel to the minerals review work, therefore, the Council intends to prepare supplementary planning guidance for individual or grouped sites, to provide a context for further working and to address, inter alia, the issues of landscaping, restoration and afteruse of these sites. It is intended that this guidance will involve liaison with operators, landowners, service providers and local communities. This work will be started as the Plan reaches the later stages of the development plan process.

Committees

10.10 The Local Planning Authority supports the establishment of liaison committees for the limestone quarries in South Gloucestershire. These committees are normally set up by the quarry operator with locally elected representatives and local parish and resident representatives invited to attend. It is important that the relevant officers from South Gloucestershire Council attend these liaison committees. Similarly, the Local Planning Authority supports the establishment of liaison committees for waste management facilities, such as major landfills, which will be part of the community for a number of years. Experience suggests that these committees provide a useful forum for discussion which can resolve problems, improve community relations and aid mutual understanding. Whilst it is not possible to require the establishment of these committees by condition or legal agreement, the Local Planning Authority strongly recommends that operators establish a committee where there is local community interest.
The proposed boundaries of the Preferred Areas and proposed integrated waste management facilities do not necessarily coincide with potential planning application or operational boundaries. Allowance will need to be made in any planning applications for appropriate stand-offs, screening or landscaping and other environmental and operational constraints. Although the identified area should represent the overall envelope within which a site may be developed, associated works outside of this area may be necessary (e.g. off-site planting to assimilate the development into the surrounding landscape, or access/highway works).

In respect of the existing planning permissions shown on the Inset Maps, the full extent of the area covered by a planning permission is indicated and working has not necessarily been permitted up to the marked boundary. Full details can be obtained from the planning decision notices and approved plans.

The text which accompanies each of the Inset Maps has been prepared to indicate the constraints to development which will need to be addressed by a prospective operator.
Tytherington Quarry (Carboniferous Limestone)

Tytherington Quarry is situated 1 km south east of Thornbury, between the A38 and the M5 motorway. The Quarry has a rail-head facility and the mineral branch line joins the main railway network at Yate. Road access to the M4 and M5 motorways is via the A38. There is an outstanding resolution to grant planning permission for the removal of part of Itchington Lane, and for the storage of overburden/soil and a screenbank to the south west of the Lane, on completion of a Section 106 Agreement. This permission would release 19.5 million tonnes of reserves which are sterilised and allow the quarry to progress in a south west direction.

Preferred Area for Mineral Extraction

It is envisaged that the Preferred Area would be worked as an extension to the Woodleaze area of the quarry, with processing being carried out in the current quarry plant area (Grovesend). The Jubilee Way Recreation Route runs along the western boundary, providing a link across South Gloucestershire between the Severn Way and the Cotswold Way. Two electricity pylons also cross the Preferred Area. Other constraints to working the site are: the proximity of properties to the south west of the site; the rights of way network linking the villages of Alveston and Tytherington; visual impact from the north west in the vicinity of the A38; archaeology, with two scheduled ancient monuments in close proximity to the site as well as a number of archaeological sites to the north and west; hydrology and hydrogeology due to the likely depth of working. The Preferred Area is a site of considerable archaeological potential and a prior evaluation and agreement of an appropriate scheme of archaeological mitigation will be essential.

Proposed Landfill Site (Inert Only)

Although virtually worked out, North Face quarry remains a part of the Tytherington Quarry complex and is linked by tunnel to the quarry plant area. The major constraint to landfilling the site is the impact of the proposal on hydrology and hydrogeology. Other constraints include: the presence of a geological SSSI in the south east of the void; the designation of the whole void as a Regionally Important Geological Site; visual impact from land to the north and west; transportation implications of a new access and the mix of waste management and quarry traffic.
**Wickwar Quarry**
*(Carboniferous Limestone)*

Wickwar Quarry is situated 1 km north west of Wickwar on the B4509. The old quarry area (Churchwood), the plant area and the concrete blockworks lie to the west of the B4509. The current quarry excavations and the primary crusher are east of the B4509, connected to the plant area by a conveyor which runs through a tunnel beneath the road. The main quarry access is to the west of the B4509. A Weight Restriction Order prevents heavy quarry traffic passing through Wickwar. It is envisaged that the Preferred Area would be worked in a northwards direction as an extension to Wickwar Quarry using the current plant and access arrangements.

The main constraints to working the site are visibility, proximity to the hamlet of Churchend and hydrology/hydrogeology due to the likely depth of working.
**Inset No 3**

**Chipping Sodbury Quarry (Carboniferous Limestone)**

Chipping Sodbury Quarry is situated immediately to the north of Chipping Sodbury on the B4060. The old quarry area (Barnhill) and the plant site (Southfields) lie to the west of the B4060. Current extraction is proceeding on the east side of the B4060, in the Hampstead Farm phase, to the south of Brinsham Stream. Access to the plant site from Hampstead Farm is through a road tunnel beneath the B4060. Working is likely to progress to the north of Brinsham Stream and into the East Brinsham Farm area in the next 5 - 10 years, before crossing the B4060 into the West Brinsham Farm area in the longer term.

**Preferred Area for Mineral Extraction**

The Preferred Area lies to the east of East Brinsham Farm. Due to the topography of the surrounding land, existing hedgerows and advance planting, it is well screened from public view. The main constraint to working the Preferred Area is the need to maintain the continuity of the water flow along Brinsham Stream in order to protect the ecological interest of this water corridor. This constraint is applicable not just to the Preferred Area, but to the working of those areas of land adjacent to Brinsham Stream which already have planning permission. It should, however, no longer be a constraint to working the Preferred Area once workings cross into East Brinsham Farm, as the matter will have been resolved in the current review of conditions for the IDO permission which covers most of the area east of the B4060.

**Proposed Landfill Site (Inert only)**

Although effectively worked out, Barnhill Quarry remains part of the Chipping Sodbury quarry complex fulfilling a silt lagoon function. The major constraint to landfilling the site is hydrology and hydrogeology. Other constraints are: the proximity of existing housing, and the potential environmental impact on local residents from landfill operations; the presence of a geological SSSI on the eastern flank of the void; the designation of the whole site as a Regionally Important Geological Site; and transportation of wastes to the site by road using appropriate routes and the consequent environmental impact on local residents.
Cattybrook Claypit, Almondsbury (Coal Measures Clay)

Cattybrook Claypit lies to the south west of Almondsbury, on the edge of the River Severn alluvial flatlands. The existing claypit lies to the east and north of the Preferred Area, with the brickworks and associated brick stockpiling area immediately adjacent to the southern boundary of the Preferred Area.

The site falls gently to the west in the vicinity of the brickworks, dipping more sharply across the northern part of the site towards Lower Knole Farm. Distant views of the site can be attained from the west, including the elevated section of the M4. Existing hedgerows and trees screen the site from the north and east, although glimpses of the site may be gained from the properties at Knole Park.

In addition to visual impact, the other constraints to working the Preferred Area are archaeology and rights of way. The site lies within an area of considerable archaeological potential. Prehistoric, Roman and medieval remains are known of within the vicinity. An archaeological evaluation will, therefore, be an essential requisite. Two public rights of way cross the northern part of the site joining into one right of way which then runs along the eastern boundary of the site and through into the area of the brickworks.
Shortwood Claypit, West of Pucklechurch (Coal Measures Clay)

Shortwood Claypit lies close to the eastern fringe of the Bristol urban area, east of the development at Emersons Green and south of an area which is an existing development plan allocation for employment and a major mixed use development proposal in the emerging South Gloucestershire Local Plan. The site comprises the existing claypit, the area of the demolished brickworks, and the current clay stockpiling area. Access to the Claypit area is off the Shortwood Northern Link to the Avon Ring Road along Cattybrook Road.

Preferred Area for Clay Working

The Claypit and Preferred Area lie on the edge of an area which has been, and will continue to be, subject to considerable development and change. To the north and west of the claypit is the Emersons Green development area, comprising existing development and a major area for future mixed use development, and the Ring Road. The Preferred Area comprises agricultural land, Shortwood Farm and another property which fronts onto Cattybrook Road. Both of these properties would need to be removed to allow the development of the site. The land rises gently across the site from the west, with higher land to the east and south, providing views into and across the Preferred Area. The Dramway Footpath runs to the east of the site along Cattybrook Road. The Yate-Mangotsfield Cycleway runs along the former railway line to the west of the Preferred Area and provides views across the site to the rising land to the east and the scarp slope of the Pucklechurch Ridge. Views across this area of countryside are an important element of the visual amenity of the locality.

Other constraints to working the site are archaeology, ecology and rights of way. The site is one of considerable archaeological and industrial archaeological potential. Any application, therefore, requires to be accompanied by an evaluation of both the site’s archaeological interest and the wider historic industrial landscape of which it forms a part.
The impact of working on water flows across the Preferred Area will need to be investigated in relation to The Rosary Site of Nature Conservation Interest which lies to the west of the Yate-Mangotsfield Cycleway. A number of rights of way cross the Preferred Area.

Proposed Landfill Site

Existing permissions authorise the extraction of clay over a considerable area. However, the traditional role of extraction is low and will be significantly less than the rate of waste input. A significant constraint therefore is the balance between clay extraction and landfilling of waste and the stockpiling of any clay prior to its removal to Cattybrook. Other constraints are: the hydrology and hydrogeology and the impact upon engineering design and acceptable waste types; the presence of the former local authority tip within the site; the visual impact from Coxgrove Hill and the Emersons Green area; the archaeological, ecological and public rights of way issues referred to above.
Glossary

Aftercare
A programme of treatment and management to bring a restored mineral site to a satisfactory standard for its prescribed afteruse.

Afteruse
Use of former mineral working following restoration.

Aggregates
Sand, gravel and crushed rock and other bulk materials which are suitable for use in the construction industry as concrete, mortar, finishes or roadstone or for use as a constructional fill or railway ballast.

Aggregates Monitoring (AM) Surveys
Surveys on the sales and distribution of aggregates and materials suitable for use as aggregates, carried out at four-yearly intervals. Produced by the Regional Aggregate Working Parties from information provided by the minerals industry. The most recent published surveys are AM89 and AM93, with AM97 due for publication in late 1998.

Ancient woodland
Woodland areas that have existed since at least 1600.

Aquifers
Water bearing rock and sub-soil.

Area of Outstanding Natural Beauty (AONB)
An area of particularly attractive landscape and unspoilt character which should be protected and enhanced as part of the national heritage. It is designated by the Countryside Commission under the National Parks and Access to the Countryside Act 1949.

Best and Most Versatile Agricultural Land
Agricultural Land Grades 1, 2 and 3a as defined under the Agricultural Land Classification system established by the former Ministry of Agriculture, Fisheries and Food (now DEFRA). Land grading for a specific site is determined via ground surveys carried out by the Farming and Rural Conservation Agency.

Best Practicable Environmental Option (BPEO)
“...the outcome of a systematic consultative and decision making procedure which emphasises the protection and conservation of the environment across land, air and water. The procedure establishes for a given set of objectives, the option that provides the most benefits or least damage to the environment as a whole, at acceptable cost, in the long term as well as the short term.” Royal Commission on Environmental Pollution, 1988.

Biodiversity
The range of plant and animal species present in an area. It can refer to global, regional or local systems.

Borrow Pit
Mineral working in close proximity to, and solely to provide material for, a large construction or engineering project.

Bund
An embankment formed to screen a site from view and/or to reduce noise emissions from a site.
Clinical Waste
Waste including human or animal tissue/blood, drugs or other pharmaceutical products, swabs, dressings, syringes, etc which may prove hazardous to any person coming into contact with it, and any other waste from similar sources which may cause infection to any person coming into contact with it.

Coastal Zone
The extent of the area subject to natural coastal processes and human activities related to the coast.

Commercial Waste
Waste from premises used wholly, or mainly, for the purposes of a trade or business or for a sport, recreation or entertainment.

Compost
Organic matter decomposed aerobically for use as soil conditioner or fertilizer.

Conservation Area
Areas of special architectural or historic interest designated by local authorities under the Planning (Listed Building and Conservation Areas) Act 1990.

Construction and Demolition Waste
Waste, generally inert, arising from the construction, maintenance or demolition of buildings or other civil engineering structures.

Crushed Rock
Hard rock which has been crushed and graded for use as an aggregate.

Department for Environment, Food and Rural Affairs (DEFRA)
Department of Central Government which has replaced the former Ministry of Agriculture, Fisheries and Food (MAFF).

Department of the Environment (DoE) / Department of Environment, Transport and the Regions (DETR)/Department of Transport, Local Government and the Regions (DTLR)
DTLR is a department of Central Government, previously named the DoE & DETR, which issues Planning Policy Guidance Notes (PPGs), Mineral Planning Guidance Notes (MPGs) and Circulars on planning matters and is responsible for administering the Development Plan System.

Development Plan System
The system of Structure and Local plans prepared by local authorities as a framework for development and land use decisions in their area.

Environmental Assessment
A method of assessing the likely environmental effects of a development, together with an assessment of how adverse effects might be mitigated.

Green Belt
A planning designation designed, inter alia, to prevent urban sprawl and encroachment into the countryside by protecting open land around and between urban areas.

Historic Battlefield Register
Battlefields of national importance registered by English Heritage.

Historic Parks and Gardens Register
Parks and gardens of national importance registered by English Heritage.
High Specification Aggregate (HSA)
Aggregate which, due to its high skid resistant properties, strength and resistance to abrasion, is used as a top dressing in road surfacing.

Household waste
Waste from a private dwelling or residential house or other such specified premises, and includes waste taken to household waste recycling centres.

Hydrogeology
The study of water below ground surface.

Hydrology
The study of the movement of water (including surface water) within an area.

Incinerator
Industrial plant where combustible waste materials are burnt in order to reduce their weight, volume and pollution potential prior to the disposal of the residues at landfill sites.

Industrial Waste
Waste from any factory within the meaning of the Factories Act 1961 or such other specified premises.

Inert Waste
Waste, generally excavation and demolition materials arising from building and construction, that does not normally undergo any significant physical, chemical or biological changes when deposited at a landfill site.

Integrated Waste Management Facility
Article 5 of the Waste Framework Directive requires the establishment of an integrated network of disposal installations in order to dispose of waste by suitable means in accordance with the proximity principle. An integrated waste management facility offers the opportunity to achieve this at a single site where wastes can be managed in a variety of ways with residues disposed of at an on-site landfill.

Interim Development Order (IDO)
These are permissions granted after 21 July 1943 and before 1 July 1948 which, where formal registration has taken place under the terms of the Planning and Compensation Act 1991, have been preserved as valid planning permissions.

Landbank
A stock of reserves with planning permission sufficient to provide for continued extraction over a given time period.

Landfill
The deposit of waste onto and into land and, through restoration, to provide land which may be used for another purpose. Where the tipping raises the level of the land above original ground contours, this is often referred to as landraising.

Landfill Gas
A mixture of gases, methane (65%) and carbon dioxide (35%) plus trace gases and vapours, produced by the degradation of biodegradable waste in landfill sites.

Landraising
(See "Landfill" above)
Landscape
“The term landscape refers primarily to the visual appearance of the land, including its shape, form and colours. It also reflects the way in which these various components combine to create specific patterns and pictures that are distinctive to particular localities. However, the landscape is not a purely visual phenomenon, because its character relies closely on its physiography and its history. Hence, in addition to the scenic or visual dimension of the landscape there are a whole range of other dimensions, including geology, topography, soils, ecology, archaeology, landscape history, land use, architecture, and cultural associations. All of these factors have influenced the formation of the landscape, and continue to affect the way in which it is experienced and valued.” (Countryside Commission Landscape Assessment Guidance, CCP3 423 1993)

Leachate
Contaminated liquid which can seep from a landfill site.

Listed Buildings
Buildings of special architectural or historic interest designated by the Department of Culture, Media and Sport under the Planning (Listed Building and Conservation Areas) Act 1990.

Low level Restoration
The re-establishment of land following mineral extraction without in-filling with waste material.

MAFF
Ministry of Agriculture, Fisheries and Food.

Mineral Planning Authority (MPA)
The term given to any of the authorities with responsibility for planning control over mineral working.

Mineral Planning Guidance (MPG)
These are notes issued by the Government which provide guidance to local authorities, the minerals industry and other interested parties. Plans which address minerals issues are expected to take MPGs into account. Those MPGs referred to in this Plan are listed in the Bibliography.

Mineral Resource Areas
Areas where economically workable mineral deposits are believed to exist, within which development that might sterilise or prejudice the working of that deposit in the longer term, or be adversely affected by mineral working, will be resisted.

Minerals Development
“Development consisting of the winning and working of minerals, or involving the depositing of mineral waste” (para 96(6), Environment Act 1995)

National Nature Reserve (NNR)
An area of high nature conservation value designated under the National Parks and Access to the Countryside Act 1949 or the Wildlife and Countryside Act 1981.

Permitted Development
Development which does not require planning permission under the Town and Country (General Permitted Development) Order 1995.

Permitted Reserves
Proven mineral deposits that have planning permission for extraction.
Planning Obligation
Enforceable undertaking or agreement to control matters beyond the scope of planning conditions.

Planning Policy Guidance (PPG)
Guidance issued by the Department of Environment, Transport and the Regions setting out the national policy context for Structure and Local Plans. Plans are expected to take PPGs into account. The PPGs referred to in this Plan are listed in the Bibliography.

Polished Stone Value (PSV)
Resistance to polishing is an essential requirement for all wearing course materials and surface dressings, to provide a skid-resistant road surface. It is the most important characteristic of High Specification Aggregates.

Primary Aggregate
Naturally occurring aggregate such as crushed rock and sand and gravel.

Progressive Restoration
A rolling programme of restoration in phase with mineral extraction so that the minimum area is disrupted at any one time.

Proximity Principle
Ensuring an adequate network of facilities to enable transportation costs to be minimised.

Ramsar Site
A wetland site of Special Scientific Interest which is designated by the Secretary of State for the Environment, Transport and the Regions under the Ramsar Convention as being of international importance.

Reclamation
Operations associated with mineral extraction to return an area to an acceptable environmental state. It includes restoration, aftercare and works which take place before, during and after mineral extraction.

Recovery
Obtaining value from wastes through one of the following means: recycling; composting; other forms of material recovery (such as anaerobic digestion); energy recovery (combustion with direct or indirect use of the energy produced, manufacture of refuse derived fuel, gasification, pyrolysis, or other technologies).

Recycling
Recovering re-usable materials from waste or using a “waste” material for a positive purpose.

Regional Self Sufficiency
The requirement that each planning conference region provide sufficient facilities for managing the waste arising in its region.

Reserve
Economically and technically workable mineral deposit which has been proven.

Resource
Potential mineral deposit where the extent and economic viability is unproven.

Restoration
Process of returning a site to its former or a new use following mineral extraction.
Scheduled Ancient Monument
Site of national archaeological importance which appears on the Schedule of Ancient Monuments compiled by the Secretary of State for Culture, Media and Sport.

Secondary Aggregate
Byproduct wastes, synthetic materials and soft rock which may be used for aggregate purposes with or without processing.

Site of Special Scientific Interest (SSSI)
A specifically defined area under section 28 of the Wildlife and Countryside Act 1981 designated by English Nature within which protection is afforded to ecological or geological features.

Sites and Monuments Records (SMR)
Records held by mineral planning authorities comprising details of known archaeological information on sites of national, regional and local importance.

Special Area of Conservation (SAC)
A site designated under the EU Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora as of special importance.

Special Protection Area (SPA)
A site designated under Article 4 of EC Directive 19/409 as being of particular importance for the conservation of rare and/or migratory wild birds.

Special Waste
Defined by the Control of Pollution (Special Wastes) Regulations 1980 as any controlled waste that contains any of the substances listed in Schedule 1 to the Regulations, or is dangerous to life, or has a combustion flashpoint of 21°C or less, or is a medical product as defined by the Medicines Act 1968.

Sterilisation
Development on or near mineral bearing land which prevents the mineral resource from being worked.

Sustainable Development
Development that meets the needs of today without denying future generations the best of today’s environment.

South West Regional Aggregates Working Party (SWRAWP)
The SWRAWP is one of the RAWPs set up in England and Wales. The RAWPs are essentially a forum for data collection and discussion, linking the industry, MPAs and relevant Government Departments.

South West Regional Technical Advisory Body (SWRTAB)
SWRTAB is one of the RTAB’s being set up under draft PPG10. Its primary purpose is to provide technical advice on regional waste planning issues to the Regional Assembly. Its membership includes local authorities, Government Office, Environment Agency and the waste management industry.

Transfer Station
A site at which collected waste is transferred to bulk transport for delivery by road, rail or water to a final disposal site.
Waste

Material is waste if, when disposing of it, or having it disposed of on his behalf, the producer intends to discard it or throw it away. Even if the material is reusable, if it is discarded it is still waste. It is the original producer’s intention that determines if a material is waste. Waste is generally referred to as being either controlled or uncontrolled. Controlled waste consists of household, commercial and industrial waste and falls within the scope of waste regulation and environmental protection legislation. Uncontrolled waste consists of radioactive waste, explosive waste, mines and quarries waste and agricultural waste and is regulated by other legislation.

Waste Audit

Analysis of waste arising from a specific development project, together with the steps for its minimisation, re-use and disposal.

Waste Arising

Waste originating from a particular area.

Waste Collection/Disposal Authority

The local authority (South Gloucestershire Council) with responsibility for implementing the provisions of the Environmental Protection Act 1990 with regard to the collection and disposal of waste.

Waste Development

Defined as “Development which involves the depositing of refuse or waste materials other than mineral waste” in S38(1) Town and Country Planning Act 1990, as amended, but refers in this Plan to any proposals for the management (i.e. sorting, treatment, storage, etc as well as deposit) of waste.

Waste Disposal

The process of getting rid of unwanted, broken, worn out, contaminated or spoiled materials in an orderly and regulated fashion.

Waste Hierarchy

An order of waste management methods based on their predicted sustainability.

Waste Management Facility

A generic term for any site or building where waste materials are stored, sorted, processed, pre-treated, recycled or finally disposed of.

Waste Management Licence

A licence granted by the Environment Agency under the provisions of the Environment Protection Act 1990 to ensure waste treatment and disposal is carried out with no unacceptable risk to the environment or to public health, safety and amenity.

Waste Treatment

The process of making waste material easier to handle, transport and dispose of by chemical, physical or biological means.

Water Table

The top surface of the saturated zone within the aquifer.
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MPG3 Coal Mining and Colliery Spoil Disposal, 1999
MPG7 The Reclamation of Mineral Workings, 1996
MPG11 The Control of Noise at Surface Mineral Workings, 1993
National Parks and Access to the Countryside Act 1949

Planning and Compensation Act 1991

PPG1 General Policy and Principles, 1997

PPG2 Green Belts, 1995

PPG7 The Countryside - Environmental Quality and Economic and Social Development, 1997

PPG9 Nature Conservation, 1994

PPG10 Planning and Waste Management, 1999

PPG12 Development Plans, 1999

PPG15 Planning and the Historic Environment, 1994

PPG16 Archaeology and Planning, 1990

PPG20 Coastal Planning, 1992

PPG23 Planning and Pollution Control, 1994

Railways Act 1993

RPG10 Regional Planning Guidance for the South West, 2001

South Gloucestershire Local Plan, Deposit Draft, 2000

Town and Country Planning Act 1990

Town and Country Planning (Applications) Regulations 1988

Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations, 1999

Town and Country Planning (Development Plan) (England) Regulations 1999

Town and Country Planning (General Development Procedure) Order 1995

Town and Country Planning (General Permitted Development) Order 1995

Waste Management Policies for South Gloucestershire, Supplementary Planning Guidance, 1997

Wildlife and Countryside Act 1981
**APPENDIX 1**

**Waste Management Facilities in South Gloucestershire at 1 April 2002**  
(*excluding Restricted Users sites*)

### WASTE TRANSFER STATIONS

<table>
<thead>
<tr>
<th>Grid Ref</th>
<th>Waste Processed 2000/1 (tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-inert</td>
</tr>
<tr>
<td>Northway, Filton</td>
<td>ST 608 801</td>
</tr>
<tr>
<td>Safety-Kleen UK</td>
<td>ST 672 729</td>
</tr>
<tr>
<td>The Tyre Yard, Willsbridge</td>
<td>ST 669 698</td>
</tr>
<tr>
<td>Westerleigh Railhead</td>
<td>ST 692 786</td>
</tr>
<tr>
<td>Carsons Road Transfer Station</td>
<td>ST 667 748</td>
</tr>
<tr>
<td>KG Metals Waste Transfer Station</td>
<td>ST 695 830</td>
</tr>
<tr>
<td>Rowley Fields Waste Transfer Station</td>
<td>ST 704 836</td>
</tr>
<tr>
<td>Dean Road/Collett Way, Yate</td>
<td>ST 702 832</td>
</tr>
<tr>
<td>Crown Road Industrial Estate, Warmley</td>
<td>ST 671 730</td>
</tr>
<tr>
<td>212 North Road, Yate</td>
<td>ST 690 836</td>
</tr>
<tr>
<td>199 North Road, Yate</td>
<td>ST 699 836</td>
</tr>
<tr>
<td>Millstone Farm, Inglestone Common</td>
<td>ST 760 884</td>
</tr>
</tbody>
</table>

**WASTE PROCESSED 2000/1**  
164,140 min 90,170 min

### HOUSEHOLD WASTE RECYCLING CENTRES

<table>
<thead>
<tr>
<th>Grid Ref</th>
<th>Waste Processed 2000/1 (tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carsons Roads, Kingswood</td>
<td>ST 667 748</td>
</tr>
<tr>
<td>Dean Road, Yate</td>
<td>ST 701 832</td>
</tr>
<tr>
<td>Station Road, Stoke Gifford</td>
<td>ST 611 813</td>
</tr>
</tbody>
</table>

**WASTE PROCESSED 2000/1**  
29,600

### METAL RECYCLERS/VEHICLE DISMANTLERS

<table>
<thead>
<tr>
<th>Grid Ref</th>
<th>Waste Processed 2000/1 (tonnes)</th>
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</thead>
<tbody>
<tr>
<td>Blackhorse Scrap Metal Merchants</td>
<td>ST 669 779</td>
</tr>
<tr>
<td>Vimpennys Lane Scrap Processing</td>
<td>ST 561 821</td>
</tr>
<tr>
<td>Keynsham Car Breakers</td>
<td>ST 661 691</td>
</tr>
<tr>
<td>Yate Car Breakers</td>
<td>ST 703 830</td>
</tr>
</tbody>
</table>

**WASTE PROCESSED 2000/1**  
2,300
## GREEN WASTE COMPOSTING

<table>
<thead>
<tr>
<th>Grid Ref</th>
<th>Annual Composting (tonnes)</th>
<th>Waste Processed 2000/1 (tonnes)</th>
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</thead>
<tbody>
<tr>
<td>Harnhill Landfill Site</td>
<td>ST 600 880</td>
<td>8,500</td>
</tr>
<tr>
<td>Old Green Farm, Earthcott Green</td>
<td>ST 647 844</td>
<td>2,000 cu m</td>
</tr>
<tr>
<td><strong>WASTE PROCESSED 2000/1</strong></td>
<td></td>
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## GLASS RECYCLING

<table>
<thead>
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<th>Grid Ref</th>
<th>Annual Recycling (tonnes)</th>
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</thead>
<tbody>
<tr>
<td>Wickwar Quarry</td>
<td>ST 715 902</td>
<td>10,000</td>
</tr>
<tr>
<td><strong>WASTE PROCESSED 2000/1</strong></td>
<td></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

## LANDFILL : NON-INERT SITES (Open Gate Sites)

With planning permission & waste management licence

<table>
<thead>
<tr>
<th>Grid Ref</th>
<th>Permitted/ Licensed Void (cu m)</th>
<th>Waste Landfilled 2000/1 (tonnes)</th>
<th>Void Remaining 1 April 2001 (cu m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berwick Farm, Hallen (Phase 3)</td>
<td>ST 554 806</td>
<td>650,000</td>
<td></td>
</tr>
<tr>
<td>Harnhill (Phase 4)</td>
<td>ST 600 880</td>
<td>1,268,000</td>
<td></td>
</tr>
<tr>
<td>Northwick, Aust</td>
<td>ST 556 874</td>
<td>301,700</td>
<td></td>
</tr>
<tr>
<td>Codrington Quarry</td>
<td>ST 725 783</td>
<td>830,000</td>
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<tr>
<td><strong>TOTAL AVAILABLE VOID SPACE</strong></td>
<td>2,219,700</td>
<td>446,900</td>
<td>1,398,000</td>
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With planning permission & awaiting waste management licence issue

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<th>Grid Ref</th>
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<th>Waste Landfilled 2000/1 (tonnes)</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Churchwood Quarry, Wickwar</td>
<td>ST 713 900</td>
<td>5,000,000</td>
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**ADDITIONAL VOID SPACE PENDING WASTE MANAGEMENT LICENCE**

<table>
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<td><strong>5,000,000</strong></td>
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## LANDFILL : INERT SITES (Open Gate Sites)

With planning permission & waste management licence

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<th>Waste Landfilled 2000/1 (tonnes)</th>
<th>Void Remaining 1 April 2001 (cu m)</th>
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<tbody>
<tr>
<td>Up Yonder Farm, Winterbourne</td>
<td>ST 652 795</td>
<td>47,000</td>
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With planning permission & exempt from licencing

<table>
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<tr>
<td>Land North of Ruffet Road, Coalpit Heath</td>
<td>ST 668 796</td>
<td>26,500</td>
<td>0</td>
</tr>
<tr>
<td>Greenacres, Winterbourne</td>
<td>ST 637 8051</td>
<td>115,000</td>
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<tr>
<td>Serridge Lane, Coalpit Heath</td>
<td>ST 676 797</td>
<td>3,500</td>
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<tr>
<td>Woodlands Golf Course, Trench Lane</td>
<td>ST 625 833</td>
<td>137,500</td>
<td>0</td>
</tr>
<tr>
<td>Land at Shireway Community Centre</td>
<td>ST 703 805</td>
<td>10,000</td>
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<tr>
<td><strong>TOTAL AVAILABLE VOID SPACE</strong></td>
<td>339,500</td>
<td>190,000-260,000</td>
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Summary of the Sustainability Appraisal of the Policies in the Adopted Plan

The full reports on the Sustainability Appraisal of the Revised Deposit Draft, and the earlier Deposit Draft and Consultation Drafts, are available as separately published documents. This Appendix summarises the impact that the policies in the Adopted Plan have on defined sustainability criteria. Paras 1.14 - 1.16 of this Plan detail the sustainability appraisal process.
<table>
<thead>
<tr>
<th>Policy 1</th>
<th>Safeguarding Mineral Resources</th>
<th>Global Sustainability</th>
<th>Natural Resources</th>
<th>Local Environmental Quality</th>
<th>Economic Considerations, Social Stability &amp; Choice</th>
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<td>Policy 3</td>
<td>Secondary &amp; Recycled Materials</td>
<td>✓</td>
<td>✓</td>
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- ✓ positive impact
- = both positive and negative impacts
- x negative impact
- ? unknown impacts
- N/A criterion not relevant - no impact
<table>
<thead>
<tr>
<th>Policy</th>
<th>Global Sustainability</th>
<th>Natural Resources</th>
<th>Local Environmental Quality</th>
<th>Economic Considerations, Social Stability &amp; Choice</th>
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N/A: Not Applicable
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<th>Natural Resources</th>
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- ✓: positive impact
- =: both positive and negative impacts
- ×: negative impact
- ?: unknown impacts
- N/A: criterion not relevant - no impact
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