

PART 2: AGGREGATES

CHAPTER 4

MEETING THE NEED FOR AGGREGATES

4.1 Introduction

- 4.1.1 The provision of adequate supplies of aggregate minerals to the construction industry is essential to maintain the future social and economic interests of the residents of Wiltshire and Swindon through the building of new houses, roads, schools, hospitals, factories and offices, and for the maintenance and repair of existing buildings and structures. It is Government policy that local, regional and national requirements for minerals should be met to serve essential development needs and that each MPA should make a contribution to meeting these requirements, which reflects the nature and extent of minerals in its area (MPG1 “**General Considerations and the Development Plan System**”, para. 40).
- 4.1.2 Government’s forecasts of future aggregate consumption are set out in Minerals Policy Guidance Note 6 (MPG 6, 1994) and used to quantify the amount of aggregate which may need to be supplied in the future. Whilst the forecasts may provide some indication of the long term trend in demand for aggregate they do not represent targets for aggregate production.
- 4.1.3 As with all minerals, the working of aggregates has costs as well as benefits, as there are defined national needs for aggregates which must be met at the best balance of social, environmental and economic cost. However, as minerals can only be worked where they are found, available aggregate resources are becoming increasingly constrained in terms of where they can be acceptably worked. Accordingly, available resources must be managed carefully in order to meet the needs of both present and future generations.
- 4.1.4 This chapter assesses how Wiltshire and Swindon’s requirements for aggregate can and should be met and what level of contribution the Plan Area may make to meeting other area’s aggregate needs.

4.2 Government Guidance on the Supply of Aggregates

- 4.2.1 The main source of Government guidance on aggregates policy is MPG6, “**Guidelines for Aggregate Provision in England**”, (1994), which states that:
- “For the economic well being of the country, it is essential that the construction industry continues to receive an adequate and steady supply of aggregates so that it can meet the needs of the community and foster economic growth”**, (para 9).
- 4.2.2 MPG6 provides specific guidance on the supply of aggregates to each region. The guidance identifies a demand for the production of approximately 715 million tonnes of primary land won aggregate from the South West during 1992-2006. Of this, 105 million tonnes is anticipated to be sand and gravel and 610 million tonnes crushed rock.
- 4.2.3 In order to implement this guidance, MPG6 requires that MPA’s prepare Minerals Local Plans which make provision for an appropriate apportionment of aggregate production for the Local Authority area in the light of the regional guidelines.
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- 4.2.4 Provision for the production of primary aggregates should be made by identifying sites or areas for possible future mineral working and adopting policies for the maintenance of landbanks - that is a stock of planning permissions for the winning and working of minerals, usually expressed in terms of the number of years worth of supply which the permissions represent.
- 4.2.5 MPG6 states that in the case of sand and gravel, MPA's should aim to maintain a landbank sufficient for at least 7 years extraction, unless exceptional circumstances prevail, although a longer period may be appropriate for crushed rock. MPA's should be able to demonstrate that sufficient resources have been identified, or can be identified to ensure that the landbank is able to be maintained at the requisite level throughout, and at the end of the Plan period.
- 4.2.6 At the same time as providing for a steady supply of aggregates, the Government recognises the environmental impact of aggregate extraction through the White Paper "**This Common Inheritance**" (1990), and set out objectives for the sustainable development of minerals through Mineral Planning Guidance (MPG) notes.
- 4.2.7 The principle objective of sustainable aggregate provision is to encourage the efficient use of materials including the appropriate use of high quality materials and recycling of waste. In pursuit of this objective the Government has examined a number of alternative aggregate supply sources in order to relieve the pressure on primary aggregate exploitation, which is becoming increasingly constrained. These include marine dredged aggregates, coastal superquarries and secondary or recycled aggregates. However, these alternatives may have adverse environmental implications, and for technical or economic reasons may be of limited value, particularly in the short term.
- 4.2.8 Nevertheless, the Government has concluded in MPG6, (1994, para. 25) that:
"...a gradual change from the present supply approach is called for, so that over time less reliance will be placed on the traditional land won sources".
- In order for aggregate production to be as consistent as possible with the principles of sustainable development, alternatives to primary land won aggregate should make an increasing contribution to supply.

4.3 How Much Aggregate Does Wiltshire and Swindon Need to Produce?

- 4.3.1 As outlined in the previous section, MPG6 states that the South West Region will need to provide 610 million tonnes of crushed rock and 105 million tonnes of sand and gravel for the period 1992-2006.
- 4.3.2 Each region has a Regional Aggregates Working Party (RAWP) whose members are drawn from the MPA's, trade associations which represents the aggregates industry, the Department of Transport, Local Government and the Regions, and other Government departments and interested parties. The role of the RAWP is to analyse options for future aggregate supply and, as part of this work they undertake detailed monitoring of aggregate production, distribution, consumption and reserves on a four yearly basis. This monitoring information has been used by the RAWP in deriving a sub-regional apportionment of the MPG6 production figures for each county in the South West for sand and gravel and crushed rock. The RAWP concluded that Wiltshire (including Swindon) should make provision for 20.20 million tonnes of sand and gravel during 1992-2006. No apportionment was made for crushed rock production in the Plan Area, due to the comparatively limited resource base for this aggregate.
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- 4.3.3 For the purposes of planning it is important to analyse whether forecast levels of production are sustainable and whether the resources exist elsewhere to maintain levels of aggregate imports which are likely to be required by Wiltshire and Swindon.

4.4 Developing Wiltshire and Swindon's Aggregates Policy

- 4.4.1 Policies for aggregate supply should be based on the concept of sustainable development as outlined in paragraph 1.2.1. Applying this concept to the use of aggregates means ensuring as far as possible that we make the most efficient use of aggregate resources so that plenty remain for future generations and their production and use does not result in a net degradation of the environment.
- 4.4.2 Since all production of minerals has an impact on the environment there is a limit to the amount of aggregate that can be supplied without an unacceptable degree of harm. Having regard to the extent of mineral reserves, and the range of environmental constraints in the Plan Area it must be concluded that Wiltshire and Swindon cannot be simply expected to meet all possible future demands for aggregates and a sustainable approach to aggregate policy must be adopted. Indeed, it should be noted that even the use of alternatives to traditional primary aggregates presents environmental problems through, for instance, the need to move large quantities of material over long distances.
- 4.4.3 In order for the production and use of aggregates to be sustainable, the MPA's believe that an aggregates policy should be developed in accordance with the following principles which promote sustainability:
1. Aggregates should only be used where they are required in order to meet defined needs for the construction industry, the repair of buildings and structures, and in road construction and repair.
 2. Avoidable wastage of aggregates should be eliminated in any new construction projects. Buildings and structures should be designed to utilise construction techniques which make economical use of aggregates.
 3. High quality aggregates should not be used where lower quality materials will suffice. Since available supplies of high quality primary aggregates are limited, lower quality materials should be used where they are capable of meeting the required standards. Over specification is a cause of wastage of higher quality aggregates. Encouragement should be given to the use of alternatives to primary aggregates such as recycled aggregates and waste materials.
 4. Aggregate resources should be conserved for the future. Today's unused resources of aggregates should be husbanded in order to safeguard them for the future. This requires the prevention of other developments which may inhibit or seriously hinder the future extraction of aggregate resources.
 5. The environmental impact of the production and distribution of aggregates should be minimised. This applies to primary, secondary or alternative aggregates. The types of aggregates produced, methods of production and transportation should be chosen with full regard to their impact on local communities and the environment. Production sites such as quarries should be restored so as to maintain or, preferably, enhance the quality of the environment.
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- 4.4.4 Planning controls can make an important contribution to achieving development in accordance with these principles. In particular the County and Borough Council's can seek to ensure that large new planning permissions for aggregate extraction are granted only when there is real need for additional supplies, that the production and distribution of aggregates has the minimum environmental impact and that mineral resources are conserved for the future. It should, however, be noted that not all of these principles can be achieved through the planning process because of the limited scope of the powers available through legislation. In particular, planning controls cannot normally be placed on the end use of minerals or the types of aggregates that are used in construction work.

4.5 Structure Plan Policy on Aggregates

- 4.5.1 The Adopted Wiltshire Structure Plan contains a Policy (**MSP5**) for aggregate provision based on MPG6 guidance which provides a commitment for the MPA's to seek to maintain landbanks in accordance with the provisions of existing and any future Government guidance.

4.6 Detailed Strategy and Policies

- 4.6.1 It is Government policy that all MPA's should aim to make an appropriate contribution to aggregates supplies for their area in order to meet the needs of the construction industry and for their mineral policies to be sustainable. The County and Borough Councils will seek to ensure that Wiltshire and Swindon together make an appropriate contribution to local, regional and national supplies of aggregate in accordance with government guidance where this is at a level which will not prejudice the Plan's principles for aggregate production, and are appropriate to aggregate resources in the Plan Area and the constraints upon them.
- 4.6.2 In accordance with the Government's objectives, the Plan seeks to ensure that a stock of reserves of aggregate minerals with planning permission for extraction (a landbank) is maintained throughout the Plan period. Landbanks are required to ensure a continuity and stability of aggregate supply because of the considerable "lead time" which is required to set up new quarry operations. Where Government advice is given in MPG6 on production forecast levels these figures will be used in the calculation of landbanks. Where landbanks are to be maintained but no apportionment has been made for that particular aggregate mineral, the landbank will be based on an average of the last 3 years production.
- 4.6.3 Landbank calculations will be used as an aid to assessing aggregate supply, and hence the need for new reserves to be permitted. Initially, when calculating landbanks at any point in time all permitted reserves for the relevant mineral will be included, irrespective of the production capacity of the sites and whether they are active or dormant.

POLICY 34: AGGREGATE LANDBANKS

STOCKS OF PERMITTED RESERVES OF CRUSHED ROCK, SHARP SAND AND GRAVEL AND SOFT SAND (LANDBANKS) WILL BE MAINTAINED THROUGHOUT THE PLAN PERIOD IN ACCORDANCE WITH GOVERNMENT GUIDANCE WHEN DEVELOPMENT PROPOSALS ACCORD WITH ALL OTHER RELEVANT POLICIES OF THIS PLAN.

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- 4.6.4 MPG6 recommends that MPA's should aim to maintain sand and gravel landbanks at a level sufficient for a minimum of 7 years production throughout and at the end of the Plan period, though a longer period may be required for crushed rock, measured against the RAWP's apportionment of the governments forecast levels of production.

4.7 Sand and Gravel

- 4.7.1 The RAWP's breakdown of the Government's Regional Guidance contained in MPG6 indicates that Wiltshire, including Swindon, should provide for the production of 20.20 million tonnes of sand and gravel over the period 1992-2006, equivalent to a rate of 1.35 million tonnes per annum.
- 4.7.2 Despite concern over the longer term sustainability of the Government policy's of aiming to meet all forecast demand for aggregates, MPG6 provides the best available estimate of demand on a nationally co-ordinated basis, and the agreed sub-regional apportionments by the RAWP have been accepted by the South West's MPA's for use in the preparation of their plans. In principle the guidance also represents a more sustainable approach than the previous advice which recommended the maintenance of a 10 year landbank. To appropriately reflect this guidance, the Plan's horizon date has been set at 2006. It is accepted that projecting these forecasts beyond this date is unlikely to provide an appropriate level of provision, or be sustained in the longer term.
- 4.7.3 Wiltshire produces soft sand which is mainly used as a building sand, and sharp sand and gravel which is primarily used in road construction and concrete manufacture. Their relative occurrences in the Plan Area are shown in Figure 3, though only a proportion of these resources are likely to be economically workable. As these are very different products the Plan seeks to ensure that supplies of both are available and that the contribution of each to the overall production of sand and gravel in Wiltshire and Swindon is maintained at an appropriate level throughout the Plan period. It is therefore considered pertinent to maintain separate landbanks for each of these minerals.
- 4.7.4 An annual average of past production rates for the 10 year period 1991-2000 indicated that 77% of the sand and gravel produced in the Plan Area was sharp sand and gravel with 23% being soft sand. The 10 year "mean" is considered to be the most accurate method of apportioning production rates as it takes account of both peaks and troughs in demand for (and production of) each type of sand and gravel. By applying this split to the overall forecast of sand and gravel production, it is possible to analyse the forecast production requirements for each of these minerals separately.

4.8 Sharp Sand and Gravel

- 4.8.1 The sharp sand and gravel proportion of Wiltshire and Swindon's apportioned production requirement for total sand and gravel, amounts to a requirement for 22.83 million tonnes over the Plan period at 1.038 million tonnes per annum, including the maintenance of a 7 year landbank. It is proposed that this production rate will be used as the basis of the landbank requirement until or unless new Government guidance, or other evidence such as the mean and annual production rates stipulated in MPG6 being exceeded over the Plan Area - indicates otherwise.
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- 4.8.2 The Plan Area's permitted reserves of sharp sand and gravel consisted of 9.04 million tonnes at the start of the Plan period, (1992) which would maintain production requirements at the forecast rate for about 8 years. Since then a further net total of 4.43 million tonnes have been granted providing for about another 4.2 years production at forecast levels.
- 4.8.3 However, this provides a landbank only to 2004, necessitating the identification of further allocations yielding about 2.1 million tonnes to maintain the MPG6 derived levels of production up to the end of the Plan period at 2006, and a further 7.26 million tonnes to maintain the 7 year landbank beyond the this date. These reserves will have to be found amongst the river terrace sand and gravel resources outlined in Chapter 1, but only where their exploitation would not prejudice environmental or amenity interest.

Meeting the need for sharp sand and gravel

- 4.8.4 One of the most important aspects of this Plan is to examine how the requirement for 9.36 million tonnes of sharp sand and gravel required to maintain landbanks throughout the Plan period can most appropriately be met. However, due to constraints in neighbouring counties, product specification and relative lack of suitable alternative and secondary aggregates, it is considered that alternative options cannot be relied upon to provide Wiltshire and Swindon's agreed contribution to these requirements. Accordingly the Plan must identify areas in which it is most likely that planning permission will be granted for sharp sand and gravel, both to guide the industry to these locations where mineral working is likely to have least impact and to indicate to local people where mineral working is likely to take place.
- 4.8.5 In order to do this an assessment was made for all the known deposits of sand and gravel in the Plan Area to determine their suitability in planning terms, for mineral extraction. Particular attention was paid to sites suggested as being suitable by the minerals industry. The assessment consisted of a "desktop" study utilising the "sieve mapping" technique, and site visits to analyse the potential of proposed sites.
- 4.8.6 The assessment indicated that much of the sharp sand and gravel resource in the Plan Area is highly constrained by environmental designations, is very close to settlements where mineral extraction may affect amenity or is restricted to locations with very poor road access. Other important constraints on the extraction of the deposits include the need to avoid the pollution of water resources, the widespread loss of the best and most versatile agricultural land, and ensuring that there is no increase in the risk of flooding.
- 4.8.7 The geological information available on sharp sand and gravel deposits indicates that those in the Upper Thames Valley are some of the best in the Plan Area in terms of quantity, quality and consistency, while the area is one of the least constrained in planning terms. The lower yields from many of the generally more fragmented deposits outside the Upper Thames Valley tend to result in larger areas of land having to be worked to provide relatively little mineral, thus increasing the environmental impact of aggregate production, which may in turn generate more significant adverse amenity impacts.
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FIG. 3: SIMPLIFIED RESOURCE MAP

Preferred Areas for Sharp Sand and Gravel

- 4.8.8 Using the “sieve map” exercise, Preferred Areas (PA’s) have been identified from within which the sharp sand and gravel resources required to meet these production forecasts should be sought. These Preferred Areas are listed in Policy 35.

POLICY 35: PREFERRED AREAS FOR SHARP SAND AND GRAVEL

THE FOLLOWING AREAS IDENTIFIED ON THE PROPOSALS MAP, ARE DEFINED AS PREFERRED AREAS FOR THE EXTRACTION OF SHARP SAND AND GRAVEL:

- 1. LAND EAST OF LATTON.**
- 2. EYSEY MANOR FARM.**
- 3. ALEX FARM.**
- 4. LAND NORTH WEST OF WATER EATON HOUSE.**
- 5. ROUND HOUSE FARM.**
- 6. LAND NORTH WEST OF LATTON.**

PLANNING PERMISSION WILL BE GRANTED FOR THE EXTRACTION OF SHARP SAND AND GRAVEL FROM THESE PREFERRED AREAS PROVIDED THAT THE PROPOSALS DO NOT GIVE RISE TO ANY OVERRIDING ADVERSE ENVIRONMENTAL IMPACT, AND ADDRESS THE DEVELOPMENT CONTROL CRITERIA SET OUT IN THE SITE ASSESSMENTS FOR EACH PREFERRED AREA.

- 4.8.9 The Preferred Areas provide the locations where it is considered that mineral working would have the least adverse impacts. However, even in these areas some adverse impacts will inevitably result from mineral working because of the very nature of the process of extraction, processing and distribution of aggregates. It is, therefore, important that any proposals for minerals development address the provisions of all relevant policies of this Plan, particularly those in Chapters 2,3 and 5, in order to minimise any potential adverse impact.
- 4.8.10 The distribution of resource between the Preferred Areas and the size of areas involved is shown in **Table 1**.
- 4.8.11 The resource figures quoted in **Table 1** are based on geological survey information provided by the minerals industry and landowners. They are estimates of recoverable or saleable mineral before any allowance is made for unworked margins at the site boundaries and in reality the actual mineral raised may be slightly less than the estimated resource, although mineral reserves in “archaeological areas” have been excluded, which may yet prove to be workable, (see Policy 46).
- 4.8.12 In addition, it is possible that some land outside the Preferred Area boundaries may have to be included in any proposals for the development of Preferred Areas in order, for example, to provide access to the site from the public highway, to allow for the storage of soil for restoration purposes or to ensure that additional landscaping can be undertaken. The details of any such proposals can only be established at the planning application stage. However, actual mineral extraction beyond the boundaries of the Preferred Areas will not normally be permitted without good justification (see Policy 36).
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Table 1: Distribution of Resource: Preferred Areas for Sharp Sand and Gravel

PREFERRED AREA	AREA (hectares)	RESOURCE (million tonnes)
1: Land east of Latton	59	1.4 (+0.1 archaeological area)
2: Eysey Manor Farm	156	2.7
3: Alex Farm	56	1.1 (+0.3 archaeological area)
4: Land north west of Water Eaton House	65	0.7
5: Round House Farm	56	1.2
6: Land north west of Latton	29	0.6
TOTAL	421	7.7 (+0.4 archaeological area)

Sharp Sand and Gravel Outside Preferred Areas

- 4.8.13 Even when there is a shortfall in the landbank, proposals for working the Preferred Areas will only be acceptable when they comply with all other relevant policies of the Plan. Furthermore, certain detailed information is not available to the County and Borough Councils when identifying Preferred Areas and, of course, the details of any particular proposal to work a site cannot be known in advance. Accordingly, when proposals in Preferred Areas are examined in greater detail at the planning application stage it may prove necessary to refuse permission if the proposals fail to include measures to adequately deal with the adverse impacts previously identified or if new problems become apparent. In this context regard should be paid to detailed site assessments for each site, which accompany the Proposals Map, and are included in Annexe 1. This guidance advises on matters to which the MPA will pay particular attention when assessing all potential impacts of working the Preferred Areas during the consideration of planning applications. However, these matters do not constitute the comprehensive list of issues which need to be addressed and they should not be treated as such.
- 4.8.14 The Preferred Areas defined in Policy 35 are believed to contain 7.7 million tonnes of unconstrained, recoverable sharp sand and gravel reserves, and thus allow for forecast production requirements to be met up to the end of the Plan period, and for the landbank to be maintained at least until 2011. This level of provision is some 1.66 million tonnes below the forecast 7 year landbank requirement, which should be maintained at the end of the Plan period. However, the “archaeological areas” could yield an additional 0.4 million tonnes, if high quality agricultural land could be restored in an acceptable way. Moreover, Policy 36 provides for sites outside the Preferred Areas to be brought forward from identified resource blocks, where this is necessary to maintain the required landbank at, and beyond, the end of the Plan period.
- 4.8.15 The Upper Thames Valley constitutes one of the most important of these resource blocks. Within this area, land between Marston Meysey, Dunfield, Fairford Airfield and the C116 (referred to in the Deposit Draft Plan as Preferred Area E – Cox’s Farm) has been identified as having potential for sharp sand and gravel extraction once the Preferred Areas identified in Policy 35 have been worked. This area is relatively unconstrained and, on the securing of an appropriate restoration scheme, could constitute a suitable area for future mineral extraction, that may yield up to 2.4 million tonnes.

POLICY 36: SHARP SAND AND GRAVEL PROPOSALS OUTSIDE PREFERRED AREAS

PLANNING PERMISSION FOR THE WINNING AND WORKING OF SHARP SAND AND GRAVEL FROM OUTSIDE THE PREFERRED AREAS DEFINED IN POLICY 35 WILL BE GRANTED ONLY WHEN THE DEVELOPMENT WILL MEET AN ACTUAL OR FORECAST SHORTFALL IN THE LANDBANK, COMPLIES WITH THE SITE SELECTION CRITERIA INCORPORATED IN THE POLICIES OF CHAPTERS 2,3 AND 5 OF THIS PLAN AND EITHER:

- 1. IT IS CONSIDERED UNLIKELY THAT SUFFICIENT MINERAL RESOURCES WILL BE RELEASED IN THE DEFINED PREFERRED AREAS TO MAKE GOOD THE SHORTFALL IN THE LANDBANK; OR,**
- 2. THE APPLICATION SITE, WHEN CONSIDERED ON ITS MERITS, IS DEMONSTRATED TO BE EQUALLY, OR MORE ACCEPTABLE IN PLANNING TERMS THAN THE DEFINED PREFERRED AREAS, OR**
- 3. IT IS DEMONSTRATED THAT THE MINERAL IS REQUIRED FOR A PARTICULAR USE FOR WHICH EXISTING SOURCES OF SUPPLY ARE NOT SUITABLE.**

4.8.16 This policy is necessary to ensure that sharp sand and gravel extraction takes place in a planned manner with minimal adverse impact. It is unlikely that many, if any application sites outside the Preferred Areas will be equally or more acceptable in planning terms than the defined Preferred Areas, as a wide range of impacts were considered in the sieve map exercise. However, it is possible that unforeseen impacts could become apparent at the planning application stage which may potentially undermine the possibility of working one or more of the Preferred Areas.

4.8.17 Furthermore, if the “archaeological areas” are proven to be unworkable, the defined Preferred Areas provide a sufficient landbank only to 2012. It is, therefore, anticipated that proposals may well be considered under this policy towards the end of the Plan period. These proposals should conform with the site selection criteria incorporated in the policies of this Plan, particularly those in Chapters 2, 3 and, if the proposals are in the Upper Thames Valley, Chapter 5. The most salient of these criteria against which site selection should be considered are as follows, though this is by no means an exhaustive list:

1. Transportation

Proposals should be sited so as to allow use to be made of the least environmentally damaging modes of transport (**Policy 6**), and should make adequate provision for access into, and vehicular movement within the site, (**Policy 8**)

2. Amenity

Proposals should safeguard residential amenity, and the character and setting of nearby settlements and dwellings (**Policy 13 and 42**)

3. Agricultural Land

Proposals should be sited and designed so as to preserve the “best and most versatile” agricultural land through restoration (**Policy 14**)

4. Hydrology

Proposals should be sited and designed so as to protect ground and surfacewater flows, levels and quality, and provide riparian enhancement, where possible (**Policies 15, 16 and 18**).

5. Nature Conservation

Proposals which are likely to impact on nationally or internationally designated areas of nature conservation importance will be resisted, (**Policy 19**). Proposals should have regard to potential impacts on local nature conservation designations, (**Policy 20**) and seek to minimise adverse impacts on wildlife interests, (**Policy 21**).

6. Landscape

Proposals which are likely to impact on nationally designated landscape areas will be resisted, (**Policy 22**). Proposals in areas of local landscape designation should have regard to these designations in their siting and design, (**Policy 23**).

7. Archaeology

Proposals likely to significantly adversely affect nationally important archaeological sites will be resisted, (**Policies 24, 25 and 26**). All proposals should be sited and designed so as to protect important archaeological areas.

8. Historic buildings

Proposals should be sited and designed so as to protect historic buildings, parks and gardens and historic battlefields or their settings, (**Policy 27**).

9. Canals

Proposals should be sited and designed so as to protect the route and vertical alignment of canals, (**Policy 28**).

10. Restoration

Proposals should be technically capable of restoration which could support an appropriate afteruse, (**Policies 31, 32, 33 and 47**).

Using the sieve map exercise, it is considered that limited resource blocks which are free from overriding constraints can be found close to the Preferred Areas in the Upper Thames Valley, west of Castle Eaton and in the Bristol Avon Valley. Proposals for mineral extraction under Policy 36 should come from within these resource blocks.

4.9 Soft Sand

- 4.9.1 Long term monitoring of the Plan Area's aggregate production indicates that soft sand accounted for 23% of the total sand and gravel production between 1991 and 2000. Based on the apportionment of regional guidance in MPG6, Wiltshire and Swindon are forecast to produce 6.82 million tonnes of soft sand over the Plan period, (including the 7 year landbank period), at 0.310 million tonnes per annum. This production rate will be used as the basis of
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the landbank requirement until or unless new Government guidance or other evidence, such as the mean annual production rate stipulated in MPG6, being exceeded over the Plan Area indicates that another should be adopted.

- 4.9.2 Wiltshire (including Swindon) had permitted reserves of 4.17 million tonnes of soft sand at the start of the Plan period, (1992), sufficient to maintain production requirements up to 2005. Since then a further 1.96 million tonnes (net) have been granted, providing a further 6 years production taking the landbank to 2011.
- 4.9.3 Although existing reserves of soft sand are more than sufficient to maintain production requirements throughout the Plan period, there is likely to be a need for new permissions for about 0.69 million tonnes to be granted for the extraction of this mineral to maintain landbanks towards the end of the Plan period.
- 4.9.4 The alternatives to supplying this requirement from local primary aggregate resources are to rely on imports of soft sand and to substitute alternative materials to soft sand. The first option is considered to be severely limited as the majority of imported sand and gravel is sharp sand and gravel, while the precise specifications required for soft sand use in manufacturing and building is likely to limit the substitution of possible alternatives. As with sharp sand and gravel the limited potential for the generation of recycled aggregates in Wiltshire and Swindon, and the high cost of transporting recycled aggregates from elsewhere is likely to further inhibit potential alternatives, which have, in any case, been taken account of in the governments MPG6 forecasts of primary aggregate requirement. Accordingly, planning applications for the extraction of soft sand will be considered against the following policy.

POLICY 37: THE WINNING AND WORKING OF SOFT SAND

PERMISSION FOR THE WINNING AND WORKING OF SOFT SAND WHERE MATERIAL PLANNING OBJECTIONS OUTWEIGH PLANNING BENEFITS WILL ONLY BE GRANTED WHEN EITHER:

- 1. THE DEVELOPMENT WILL MEET AN ACTUAL OR FORECAST SHORTFALL IN THE SOFT SAND LANDBANK BASED ON THE MEAN ANNUAL SOFT SAND PRODUCTION RATE DERIVED FROM THE RAWP APPORTIONMENT OF THE GOVERNMENTS MOST RECENTLY APPROVED AGGREGATE FORECASTS, OR:**
- 2. IT IS DEMONSTRATED THAT THE MINERAL IS REQUIRED FOR A PARTICULAR USE FOR WHICH EXISTING PERMITTED SOFT SAND RESERVES ARE NOT SUITABLE.**

IN ADDITION, ALL PROPOSALS FOR THE EXTRACTION OF SOFT SAND SHOULD COMPLY WITH THE PROVISIONS OF THE POLICIES IN CHAPTERS 2 AND 3 OF THIS PLAN.

- 4.9.5 This policy provides for the maintenance of landbanks up to the end of the Plan period in accordance with government guidance while minimising the adverse environmental and amenity impacts of soft sand extraction and promoting sustainability by safeguarding resources for future generations. In assessing need, regard will be paid to the level of permitted reserves of the mineral and the rate at which they are projected to be worked. On the basis of need, planning applications for soft sand extraction will be considered under the above
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policy, should the landbank fall below 7 years, or if it is forecast to become so within 24 months of the submission of the proposal.

- 4.9.6 At the planning application stage, the assessment of ‘real need’ and ‘real supply’ as referred to in government guidance will take account of other matters including the relationship between the actual levels of production in recent years and the apportionment figure referred to in paragraph 4.9.1. Whether the nature and quality of the aggregate concerned, and its proposed end use justifies the granting of planning permission, and whether there are any significant justifiable and demonstrable constraints on existing consented reserves from which the need could appropriately be met, which may inhibit their exploitation and use.
- 4.9.7 Policy 37 also provides for planning permission to be granted for specific types of soft sand to serve specialist markets, when the mineral from existing permitted soft sand sites is unsuitable. This is important as soft sand is found in a variety of deposits including the Lower Greensand and in more solid formations such as Reading Beds, Bagshot Sands and Corallian deposits. The grading and chemical content of the mineral varies quite significantly between these deposits, while the lithology of strata within the beds is also a cause of variants in material. The end uses of soft sand depend very much on the deposits from which the material is raised, and it is appropriate to ensure that a supply of mineral from these varied strata is maintained throughout the Plan period to serve these wide variety of needs. If it is proven that the proposal will meet a need which cannot be met from any other existing source, planning permission will be considered regardless of the landbank situation. However, this may still be refused if the proposal will unacceptably adversely impact on the range of environmental concerns covered in Chapters 2 and 3. Similarly, certain proposals for small scale developments which will not give rise to adverse impacts will be considered on their merits regardless of the landbank situation.
- 4.9.8 Policy 37 also addresses the likely shortfall in the landbank towards the end of the Plan period. Although Preferred Areas are not formally identified to meet the full 7 year landbank requirement at the end of the Plan period, any proposals for soft sand extraction should accord with the policies in Chapters 2 and 3, the most important provisions of which are listed in paragraph 4.8.17.
- 4.9.9 The sieve map exercise identified limited unconstrained resource blocks close to the existing workings at Calne, while other resource areas, unconstrained by national designations were found west of Devizes and south east of Salisbury (to the north of the New Forest Heritage Area). Proposals for mineral extraction to maintain the 7 year landbank at the end of the Plan period should come from within these resource blocks, especially those in the first list below:
1. First list (least constrained resource block)
 - **East of Calne (Lower Greensand)**
 2. Second list (other possible resource blocks)
 - **West of Devizes, (Lower Greensand and Calcareous Grit)**
 - **South east of Salisbury, (Reading Beds).**

4.10 Extensions to Existing Workings

POLICY 38: EXTENSIONS TO SAND AND GRAVEL WORKINGS

NOTWITHSTANDING THE REQUIREMENTS OF POLICY 36, EXTENSIONS TO EXISTING SOFT SAND AND SHARP SAND AND GRAVEL WORKINGS WILL BE PERMITTED PROVIDED THAT EITHER;

- 1. THE DEVELOPMENT WILL MEET AN ACTUAL OR FORECAST SHORTFALL IN THE SOFT SAND OR SHARP SAND AND GRAVEL LANDBANK, OR:**
- 2. THE MINERAL WOULD BE STERILISED IF PLANNING PERMISSION WERE NOT GRANTED, AND,**

IN ALL CASES THE PROPOSALS COMPLY WITH ALL OTHER RELEVANT POLICIES OF THIS PLAN.

- 4.10.1 In order to prevent the unnecessary sterilisation of sand and gravel resources close to mineral sites, and to minimise the impact of mineral working the MPA's will, when appropriate, permit minor extensions to existing workings. Extensions are likely to have benefits over new units in that the infrastructure is likely to be in place and environmental impacts may be less pronounced than if the new site was permitted on virgin land. In some cases extensions to existing sites may allow the extraction of mineral which would not be viable from a new production unit, and hence would become sterilised. It is accepted, however, that extensions may not be appropriate on certain sites and it is important that extensions are granted only when necessary, and in suitable locations where environmental constraints including, for example, amenity, traffic and nature conservation issues, are not present.
- 4.10.2 It is expected that the implementation of Policies 35 - 38 will help prevent the proliferation of sites producing sand and gravel which could cause an increase in the area of land disturbed at any one time, delays in the completion and restoration of quarries, and the encouragement of wastage at the expense of secondary aggregate usage.

4.11 Crushed Rock

- 4.11.1 The RAWP apportionment of the MPG6 forecasts makes no requirement for Wiltshire and Swindon to contribute to the region's strategic supplies of crushed rock. However, this is not to say that Wiltshire's existing crushed rock production should not be allowed to continue at recent levels in order to supply local needs. For some time crushed rock production in the Plan Area has been limited to a single quarry. It has sufficient permitted reserves to maintain recent production levels throughout 1992-2006, and provide a landbank of almost 7 years at the end of 2006.
- 4.11.2 It is not surprising, therefore that most of Wiltshire and Swindon's aggregate imports take the form of crushed rock which come from Somerset and the former County of Avon. One possible future alternative source of imports of crushed rock for the Plan Area may be coastal superquarries located outside England and Wales. However, Government advice given in MPG6 states that crushed rock from such sources is unlikely to contribute greatly to aggregates supply before 2002, and even after this date it is anticipated that such sources will mainly supply south east England. In any case superquarry granite may never be a complete substitute for crushed rock from Somerset and the former County of Avon, since
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the different rock types are suitable for different end uses, and rock imports from neighbouring counties are likely to generate lower transportation costs. Although Somerset and the former County of Avon are believed to be technically capable of contributing crushed rock supplies into Wiltshire and Swindon at existing levels throughout the Plan period, there is likely to be an increasing environmental cost in them doing so in the longer term. Conversely, superquarry aggregate importation by road and rail may become more economic if appropriate wharf facilities are developed in neighbouring Counties.

- 4.11.3 It is, therefore, anticipated that planning permission will only be granted for new crushed rock reserves during the Plan period if it is demonstrated that production from existing reserves is unlikely to maintain landbank requirements due to their exhaustion, or the availability of the existing permitted reserves have become constrained by, for example, physical or planning restrictions. This situation is only likely to occur towards the end of the Plan period, unless it is proven that existing permitted crushed rock reserves are unsuitable for a particular proposed use. In view of this, planning applications for the extraction of crushed rock will be considered against the following policy.

POLICY 39: THE WINNING AND WORKING OF CRUSHED ROCK

WHERE PROPOSALS FOR THE WINNING AND WORKING OF CRUSHED ROCK ARE LIKELY TO GIVE RISE TO MATERIAL PLANNING OBJECTIONS, PLANNING PERMISSION WILL ONLY BE GRANTED WHEN EITHER:

- 1. THE DEVELOPMENT WILL MEET AN ACTUAL OR FORECAST SHORTFALL IN THE CRUSHED ROCK LANDBANK, CALCULATED ON AN AVERAGE OF THE LATEST 3 YEARS PRODUCTION LEVELS OR,**
- 2. IT IS DEMONSTRATED THAT THE MINERAL IS REQUIRED FOR A PARTICULAR USE FOR WHICH MATERIAL FROM EXISTING SOURCES IS EITHER UNSUITABLE OR UNAVAILABLE**

IN ADDITION, ALL PROPOSALS FOR THE EXTRACTION OF CRUSHED ROCK SHOULD COMPLY WITH THE SITE SELECTION CRITERIA INCORPORATED IN THE PROVISIONS OF THE POLICIES IN CHAPTERS 2 & 3 OF THIS PLAN.

- 4.11.4 The implementation of Policy 39 will prevent the proliferation of sites producing crushed rock during the Plan period which may result in oversupply thereby encouraging wastage and discouraging the use of secondary aggregates. In its application, particular attention will be paid to the provisions of Policy 2, against which all mineral applications will be judged. In assessing need, regard will be paid to the level of permitted reserves of the mineral and the rate at which they are being worked or are projected to be worked. Accordingly, proposals for crushed rock extraction will be considered should the landbank fall below 7 years, or if it is forecast to do so within 24 months of the submission of the proposal. In addition, any proposal for crushed rock extraction will also be assessed against the locational constraint and impact mitigation policies in Chapters 2 and 3. However, it should be noted that much of Wiltshire's potential crushed rock is not believed to be of a particularly high quality, with a limited range of potential end uses and is largely contiguous with Areas of Outstanding Natural Beauty, the disturbance to which is not likely to be justified by need throughout the Plan period. It is, therefore, not expected that many, if any planning applications for crushed rock quarries will be received during the Plan period.
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4.12 The Safeguarding of Primary Aggregate Resources

- 4.12.1 It is fundamental to the overall aim of sustainable development that those primary aggregate resources which are not required to be extracted during the lifetime of this Plan should be safeguarded for the future. The safeguarding of all mineral resources are covered by Policy 5.

4.13 Aggregate Imports and Secondary Aggregates

- 4.13.1 Government guidance (MPG6) indicates that MPA's should provide for the release of sufficient land to enable primary aggregates to be produced. However, as implied by the MPG6 - derived production forecasts Wiltshire and Swindon will nevertheless continue to import large quantities of aggregate, and rely on increasing contributions from secondary or recycled aggregates in order to meet total aggregate needs. It is expected that the majority of these needs will be met through continued importation of crushed rock, particularly from Somerset and the former County of Avon and sand and gravel, much of which is expected to comprise mineral from Gloucestershire's sites in the Upper Thames Valley. South Wiltshire is expected to continue to rely on imports from Hampshire and Dorset for sharp sand and gravel supplies throughout most of the Plan period, although Hampshire's contribution to supplies of sand and gravel may begin to fall towards the horizon date of the Plan, because of increased constraints on sand and gravel extraction in Hampshire, including the designation of the New Forest Heritage Area.
- 4.13.2 In order to relieve the pressure on Wiltshire and Swindon's own primary aggregate resources and those of exporting counties, it is important to encourage the provision of facilities for the reception and distribution of aggregates from alternative, perhaps more sustainable sources. This approach is both in keeping with the overall goal of sustainability and prudent in terms of planning for the longer term, although it is recognised that the reception and distribution of these materials may have adverse effects similar to those arising from primary aggregate distribution.
- 4.13.3 Government policy in MPG6 encourages MPA's to make provision for the increased use of alternatives to locally produced primary aggregates, including, for example, china clay waste which could potentially be transported from Cornwall, crushed rock from remote superquarries which could potentially be imported via Poole or Southampton, and secondary aggregates. It is, however, considered unlikely that imports of such materials will make a significant contribution to Wiltshire and Swindon's aggregate supplies during the majority of the Plan period, but provision should be made for their increased use in the future.
- 4.13.4 In addition to continued importation of aggregates from alternative sources outside the Plan Area, MPG6 seeks to encourage and increase the use of secondary and recycled materials for construction projects in order to conserve primary aggregate resources. The County and Borough Councils consider it imperative that the use of secondary aggregates should increase over the Plan period. Government forecasts in MPG6 show that some 60 million tonnes of the South West's aggregate supply between 1992 and 2006 may come from secondary or recycled materials. However, in view of the nature of aggregate production and alternative supplies in Wiltshire and Swindon processed construction and demolition waste is likely to be the only potential source of secondary aggregate occurring during the Plan period and this will most likely be used for bulk fill. Ideally, in order to ensure continuity of supply of

this type of secondary aggregate, permanent recycling sites should be developed close to urban areas which are the main source of waste materials. However, MPG6 advises that such sites would typically need to be a minimum of 4-6 hectares in size and, accordingly may give rise to similar environmental and traffic impacts as quarries.

- 4.13.5 It is, therefore, important to promote proposals for the importation of alternative aggregates and production of secondary aggregates in suitable locations within the Plan Area. The emerging Wiltshire and Swindon Waste Local Plan seeks to support the provision of recycling facilities and encourages the production and use of secondary aggregates. This objective is reflected through the following policy.

POLICY 40: ALTERNATIVE AND SECONDARY AGGREGATES

PLANNING PERMISSION FOR FACILITIES FOR THE RECEPTION AND DISTRIBUTION OF IMPORTED ALTERNATIVE AGGREGATE, INCLUDING SECONDARY AGGREGATES, AND THE USE OF LAND FOR THE ERECTION OF PLANT AND MACHINERY FOR THE PRODUCTION OR PROCESSING OF SECONDARY AGGREGATES, WILL BE GRANTED PROVIDED THAT:

- 1. ACCESS TO THE SITE AND THE LOCAL HIGHWAY NETWORK, AND TRAFFIC MOVEMENT WITHIN THE SITE ARE SUITABLE FOR THE TRAFFIC LIKELY TO BE GENERATED BY THE DEVELOPMENT; AND,**
- 2. THE SITE IS WELL LOCATED IN RELATION TO THE ROAD AND, IF APPROPRIATE RAIL NETWORK; AND,**
- 3. THE PROPOSAL WILL NOT GIVE RISE TO ANY OVERRIDING ENVIRONMENTAL IMPACTS AND COMPLIES WITH ALL OTHER RELEVANT POLICIES OF THIS PLAN.**

- 4.13.6 It is particularly important for such facilities to be well located in relation to the road and rail transport network, - if it is considered that material can be transported by rail. Proposals for such sites should also include appropriate measures to deal with all other potential environmental impacts, which are likely to include not only traffic but also noise and dust generation, visual intrusion and landscape impacts, and as such will be considered against the site selection criteria included in the policies of Chapters 2 and 3. In order to minimise these impacts, proposals for the production of secondary aggregates may be most appropriately located on existing mineral extraction sites, especially if restoration of the site is likely to involve landfill, or on industrial estates providing that these proposals would not conflict with neighbouring uses. It is proposed to identify specific sites for the recycling of a variety of types of material within the emerging Wiltshire and Swindon Waste Local Plan.

4.14 Borrow Pits

- 4.14.1 In addition to the general demand for minerals, some major construction projects require substantial amounts of mineral to be supplied over relatively short periods of time. In order to meet these needs, it can be preferable to open up a “borrow pit” adjacent to the project site specifically to provide the required aggregate. In certain circumstances borrow pits can reduce adverse environmental and amenity impacts associated with extracting aggregate and transporting it from other mineral quarries. In addition, the use of borrow pits can help to supply mineral to meet the specific demand which large construction projects can create, thereby conserving reserves of high quality aggregate at existing sites. However, the
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advantages of borrow pits in terms of the avoidance of lorry traffic may, in some cases, be outweighed by other factors such as their long term impact on the landscape.

- 4.14.2 Proposals for borrow pits will therefore be assessed in accordance with the requirements of the following policy.

POLICY 41: BORROW PITS

MINERAL EXTRACTION FROM BORROW PITS TO SUPPLY SPECIFIC CONSTRUCTION PROJECTS WILL BE PERMITTED PROVIDED THAT;

- 1. THE MINERAL EXTRACTED IS USED ONLY IN CONNECTION WITH THE SPECIFIC CONSTRUCTION PROJECT WITH WHICH THE BORROW PIT IS ASSOCIATED, AND,**
- 2. SUPPLYING THE REQUIRED MINERAL FROM THE PROPOSED BORROW PIT WILL RESULT IN LESS ADVERSE IMPACT THAN USING MATERIAL FROM ANY ESTABLISHED SOURCE OF SUPPLY, INCLUDING RECYCLED OR ALTERNATIVE AGGREGATES, AND,**
- 3. THE SITE LIES WITHIN THE CORRIDOR OF DISTURBANCE OF THE CONSTRUCTION PROJECT WITH WHICH IT IS ASSOCIATED, AND,**
- 4. THE SITE WILL BE SATISFACTORILY RESTORED IN ACCORDANCE WITH AN APPROVED SCHEME, AND,**
- 5. THE PROPOSAL COMPLIES WITH ALL RELEVANT POLICIES OF THIS PLAN.**

- 4.14.3 Planning permission for borrow pits will only be granted when it is proven that they are needed to serve a specific construction project, and should be located within the corridor of disturbance of that project minimising transportation distances and reducing the use of the public highway. Where existing local supplies of aggregate or sources of construction waste or other secondary aggregates are available which could be used in the construction project instead of primary material from the borrow pit, which would give rise to fewer adverse environmental (including amenity and highway) impacts, then planning permission for the borrow pit will be refused. Borrow pits should comply with the environmental policies in Chapter 3 and always be restored to a high standard within a timescale agreed by the MPA, but which should not normally be greater than 6 months beyond the completion of the specific project with which it is associated. Restoration of borrow pits may involve infilling the pit with surplus material from elsewhere on the construction site.