Gloucestershire COUNTY COUNCIL

MINERALS AND WASTE

Annual Monitoring Report

2008 – 2009

The Minerals and Waste Annual Monitoring Report (AMR) is a local development Document of the Gloucestershire Minerals and Waste Development Framework.

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Section 1
Introduction to Annual Monitoring

1. For Gloucestershire the County Council is the Minerals and Waste Planning Authority (MPA and WPA). Therefore the County Council is required to prepare a Minerals and Waste Development Framework (MWDF). This comprises of a suite of documents that will provide the framework for determining future mineral and waste proposals.

2. The documents required for inclusion within the framework are as follows –

   - A Minerals and Waste Development Scheme (MWDS) - the timeframe for the production of other MWDF documents;
   - A Statement of Community Involvement (SCI) - how and when the community will be consulted on the preparation of local documents;
   - Development Plan Documents (DPDs) - which provide the spatial vision, objectives, policies and site allocations for delivering the framework;
   - Supplementary Planning Documents (SPDs), which provide additional guidance on the implementation of policies set out in DPDs; and
   - An Annual Monitoring Report (AMR).

Requirements for Annual Monitoring Reports (AMRs)

3. AMRs are a statutory requirement under the Planning and Compulsory Purchase Act (2004). In producing an AMR local planning authorities must achieve 5 key tasks. These are set out by Local Planning Regulation 48 and are summarised below –

   - Review the 'actual' progress of local development documents against the timetable and milestones of the approved Local Development Scheme;
   - Assess whether policies and targets in local development documents have been met;
   - Identify the impacts of policies in local development documents on national and regional policy targets;
   - Assess whether policies in local development documents need adjusting or replacing to reflect changing circumstances;
   - Identify the significant effects resulting from the implementation of policies in local development.

Annual Monitoring Regime

4. This report represents the fifth AMR for minerals and waste in Gloucestershire. It updates annual monitoring information for the county for the period April 2008 to March 2009.

5. This AMR will follow the same process as that used for last year's report. It will utilise the Sustainabilty Appraisal (SA) objectives which were amended in 2008.

Developing the Monitoring Framework

6. The AMR process for Gloucestershire is based upon the planning monitoring regime of *'objectives-indicators-targets'*. This approach is advocated by national guidance as set out in Local Development Framework Monitoring: *A Good Practice Guide.*

7. Defining clear objectives to be measured against a combination of indicators and targets is the mechanism for delivering the monitoring framework. The aim of this exercise is to provide information to inform the evidence base for future minerals and waste policy work.

Monitoring Objectives (MOs)

8. The Monitoring Objectives (MOs) in this AMR are the same as those used within the previous AMR. They are identical to those contained within the broader Sustainability Appraisal[1i]. This leads to consistency and will provide a good basis for policy development through the development of the MWDF.

Contextual Indicators (CIs)

9. Contextual indicators (CIs) provide a backdrop against which to consider minerals and waste developments in Gloucestershire. For the AMR they are presented as headline socio-economic, environmental and demographic information related to minerals and waste policies and strategies currently in operation across the county.

Output Indicators (OIs)

10. Output Indicators (OIs) aim to measure quantifiable impacts and events, which are directly related to the delivery of minerals and waste policies and strategies. There are two types of OIs;

    - Core Output Indicators (COIs); and
    - Local Output Indicators (LOIs)

    Core Output Indicators (COIs) are required to be included within all AMRs and should provide a clear and consistent data source across local authorities for strategic monitoring by national and regional planning bodies. There are currently four COIs for minerals and waste. These are listed below.

    - Production of primary land won aggregates.
    - Production of secondary and recycled aggregates.
    - Capacity of new waste management facilities.
    - Amount of municipal waste arising, and managed by management type.

11. The COI were last updated in 2008. The Regional Spatial Strategy and Local Development Framework Core Output Indicators – Update 2/2008 did not significantly change the indicators for minerals and waste. The only amendments were slight alterations to the wording of the waste-related COIs. The recommendations were for these changes to be incorporated into the AMR as soon as was practically possible, therefore they were incorporated into the previous AMR.

[1] See page 60 of the SA Scoping Report Update 3 (January 2009)

12. *Local Output Indicators (LOIs)* – provide more specific information on the monitoring of local plan policies. The results of these indicators will play a major role in providing the evidence base for preparing spatial policies and strategies for emerging DPDs.

13. The combined OIs represent the delivery of the monitoring framework. They will provide the picture of how minerals and waste policies are being implemented. Through the use of revised monitoring objectives in this AMR, the combined OIs should also give an indication as to the current level of *'sustainability'* of new minerals and waste developments in Gloucestershire.

Targets

14. Previous AMRs included a number of targets for the monitoring of objectives included in each report. These targets were based on **(**SMART**)** principles, which seek the – Specific; Measurable, Achievable; Realistic, and Timely monitoring of objectives.

15. It is envisaged that new targets may also evolve with the advent of new information and datasets.

Partnership Working

16. Involving key monitoring stakeholders is essential for developing a robust dataset to underpin the AMR process. Appendix A of this report outlines the key monitoring stakeholders involved in the process. To avoid duplication and to encourage consistency of data collection, a draft version of the AMR was sent to each monitoring stakeholder, prior to the formal submission of the AMR to the Secretary of State in December 2009.

Section 2
Contextual Indicators for Minerals and Waste

Contextual Indicators (CIs) – A Spatial Portrait

17. CIs establish a baseline of data for Gloucestershire. For the purposes of the AMR, CIs are presented as a series of headlines, which provide a background to monitoring minerals and waste in the county. The base data for CIs is the most up-to-date at the time of writing, unless otherwise stated.

This is Gloucestershire

18. Gloucestershire covers an area of 1,020 square miles (*2,650 square kilometres)*. It operates a two-tier local authority system made up of the County Council and six District Councils – Cheltenham Borough; Cotswold; Forest of Dean; Gloucester City; Stroud and Tewkesbury Borough.

Geographic and Locational CIs

19. The county's mineral resources are of local and regional significance. A majority are within rural locations away from the principal urban areas of Gloucester and Cheltenham. Three key resource zones or areas are currently being worked: –

- The Forest of Dean – which provides for limestone used as a crushed rock; coal; clay and natural building & roofing stone from limestone and sandstone;
- The Cotswolds – which includes limestone used as a crushed rock and natural building & roofing stone; clay; and
- The Upper Thames Valley – which provides for a supply of sand & gravel.

20. A further resource area for sand & gravel and clay known as the Severn Vale Corridor, has also been identified in the county. However, the significance of this area's resources is as yet unknown. Whilst the area has been subject to working in the past, the current and recent levels of activity and production is far less than experienced in the main areas set out above.

21. In contrast a significant number of the county's waste management facilities are located relatively close to / or within urban settings. This is a consequence of complex spatial and land-use factors including – proximity to waste arising, land ownership, land availability and transportation.

22. There are three main active landfill sites present within Gloucestershire. Two are situated to the north of Cheltenham and one on the western side of Gloucester. The location of these three landfill sites is fundamentally based on their geological and technical acceptability *(i.e. massive underlying clay lithology, which has impermeable properties for ensuring technically acceptable conditions for landfilling)*.

Mineral Reserves and Supplies CIs

23. Detailed data relating to mineral reserves and supplies are discussed later in the report under AMR Objectives 4 and 6.

24. In addition to those minerals discussed, a small quantity of coal was also supplied during the monitoring period, by free-mining operations in the Forest of Dean. However, there are no exact figures at this time.

Waste Management CIs

25. During the period 2005 – 2006, licensed waste management facilities in Gloucestershire handled around 1.25 million tonnes of waste[2]. The tonnage breakdown between waste streams was as follows:

- **0.32mt** of Municipal Solid Waste (MSW);
- **0.46mt** of Commercial & Industrial Waste (C&I);
- **0.40mt** of Construction & Demolition Waste (C&D); and
- **0.07mt** of hazardous waste[3].

Managing MSW

26. MSW in Gloucestershire is made up of waste collected from households *(96%)* together with a small amount of 'trade' waste from local shops and businesses. The latest figures regarding the management of MSW appear under AMR Objective 14.

Managing Commercial & Industrial (C&I) Waste

27. C&I waste managed in the county includes waste generated from businesses, shops, offices and the manufacturing sector. It is predominantly made up of biodegradable materials and metals.

28. During 2005, just over 75% of managed C&I waste constituted biodegradable and non-metal C&I materials. The remaining 25% was of metal waste from vehicle disposal and other manufacturing operations.

29. In terms of C&I management, the majority *(0.27mt)* of biodegradable and non-metal C&I materials was disposed of to landfill during 2005. The remainder *(0.08mt)* was diverted from landfill.

30. Almost all metal managed in Gloucestershire *(0.114mt)* was subject to recycling.

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[2] Waste data provided in this AMR is from Technical Evidence Paper WCS-A Waste Data, which is available from the County Council webpage via the link to minerals & waste policy and the *'online evidence library'* http://www.gloucestershire.gov.uk/index.cfm?articleid=18014. Figures presented may differ from those previously published as a result of updated or revised data and further interpretation by the County Council as Waste Planning Authority (WPA) and Waste Disposal Authority (WDA) and the Environment Agency (EA).

[3] This is based on data provided by the Environment Agency (EA) during 2004.

Managing Construction & Demolition (C&D) Waste

31. C&D waste in Gloucestershire comprises of inert materials such as brick, concrete and sub-soils primarily generated by the construction industry. It also includes a small biodegradable element made up of timber, plastic and metals.

32. During 2005, C&D waste handled in the county represented the largest managed waste stream totalling 30% of all waste.

33. The majority of managed C&D waste *(60%)* was transferred either for recycling, reprocessing, for use in land reclamation and landscaping, or sent for disposal to landfill. A small proportion was directly recycled *(15%)* and the rest *(25%)* was sent straight for disposal to landfill.

34. However, it is important to recognise that managed C&D waste represents only a fraction of all C&D waste generated and handled in Gloucestershire. A significant proportion of C&D materials never enter the county's waste management system. It is directly re-used on site as a consequence of redevelopment and regeneration schemes mostly in urban settings. Furthermore, inert materials can also be transported onto other development sites without the need for processing, for use in landscaping or reclamation. This activity often falls outside of the waste management system. *'Receiver'* sites for C&D can apply for an exemption from waste licensing and may also not require a specific waste application above and beyond an extant planning permission for general development.

35. In September 2006 the WPA produced an SPD titled 'Waste Minimisation in Development Projects.' The aim is to divert 100% of C & D waste from landfill. It requires waste minimisation statements to be submitted alongside planning applications for 10+ houses (or residential development on a site larger than 0.5 ha), or for any other development where the floor space exceeds 1 000 m² or the site areas is 1 ha or more. Further details on this can be found under Objective 1.

Managing Hazardous Waste

36. Hazardous waste usually includes substances that are recognised as being dangerous or harmful. However, it can also include waste from everyday activities, such as engine oils, paints and batteries that, if not managed correctly, might cause a health hazard.

37. The most up-to-date data on hazardous waste in Gloucestershire is for 2004. During this year 39,000 tonnes of hazardous waste arose in the county. The vast majority of this total *(38,000 tonnes)* was exported for management and / or disposal elsewhere. However, during the same period, just over 70,000 tonnes of hazardous waste was imported into Gloucestershire for management including treatment, recycling and disposal.

38. Gloucestershire has one facility that is able to deal with hazardous waste.

Spatial CIs – Employment

39. During 2007 around 1,200 people were directly employed within minerals and waste industries in Gloucestershire[4]. The majority *(around 58%)* worked in sewage, sanitation and waste disposal operations. The remainder were employed in mining and quarrying *(around 34%)* and metal recycling *(around 8%)*.

[4] This figure is based on data collected by the County Council's Research & Information (R&I) team. It is based on ONS statistics taken from the Annual Business Inquiry Employee Analysis. It covers those directly employed in sewage, sanitation and waste disposal; mining & quarrying; and metal recycling. It does not cover indirect employment often dependent upon the minerals and waste industry such as road haulage and vehicle repair and servicing.

Spatial CIs – Transport

40. Gloucestershire is serviced by a range of transport modes including road, rail, sea and inland waterways.

The Motorway & Highway Network

41. The M5 motorway acts as the main north-south route through Gloucestershire. Along the northwest county boundary lies the M50. The M4 and M48 motorways also pass by the south of the county via a connection from the M5.

The Rail Network

42. Gloucestershire has four rail trunk lines running through it. A mainline route bisects the county north to south. There is one operational rail freight depot run by and exclusively for the MOD at Ashchurch in Tewkesbury. A further three potential sites for rail freight have been identified at the Railway Triangle in Gloucester, Lydney Docks and Sharpness Docks.

The Waterborne Network

43. Sharpness Docks on the Severn Estuary is the most significant waterborne transport facility in Gloucestershire. It provides extensive cargo-handling facilities, port-related services and can accommodate vessels up to 6,000 tonnes. There are also two working dry docks, which continue to provide ship repair and refit facilities.

44. The Gloucester and Sharpness (G&S) Canal is a 16-mile network linking Sharpness Docks to dockside facilities in the city of Gloucester. It currently facilitates the low-level transportation of sand & gravel along the River Severn, from a quarry site in Worcestershire to a canal-side processing site south of Gloucester.

Spatial CIs – Growth

45. Employment and housing growth has been predicted within Gloucestershire for the future. The South West Regional Spatial Strategy (RSS) headlines around a 3% annual growth in employment for the county. Over the long-term, this is expected to create up to 41,700 new jobs by the end of 2026 in the Gloucester and Cheltenham Housing Market Area (RSS Proposed Changes). For the same period, population and housing growth is also predicted. Currently Gloucestershire's population is growing at around 0.4% a year or just over 2,500 people. By 2026, up to 56,400 new dwellings may be needed to meet the county's future population demands if the RSS proposed changes are adopted, however this is something the County Council has opposed.

46. Employment and housing growth may pose some significant spatial challenges for minerals and waste planning in future: - not least in securing sufficient capacity for managing future waste streams; but also for ensuring there is provision to meet future demands for construction minerals.

Spatial CIs – The Environment

47. Due to the relationships between valued geology, landscape, archaeology and biodiversity, many of Gloucestershire's minerals and waste developments are located close to and / or within sites of environmental importance. The following bullet points outline the key designations in Gloucestershire as at August 2009: –

- 3 Areas of Outstanding Natural Beauty (AONBs), which make up to 51% of the county;

- 122 Sites of Special Scientific Interest (SSSIs);
- 7 European Special Areas of Conservation (SACs);
- 755 Key Wildlife Sites (KWSs);
- 2 European Special Protection Areas (SPAs);
- 2 Wetlands of International Importance (Ramsar sites);
- 268 Conservation Areas;
- 517 Scheduled Ancient Monuments (SAMs);
- 2 Registered battlefields;
- 55 Registered parks and gardens;
- >12,935 Listed Buildings;
- 29,559 Locally Important Sites;
- 11 Local Nature Reserves;
- 4 National Nature Reserves;
- 79 Conservation Road Verges; and
- >164 Regionally Important Geological & Geomorphological Sites.

Spatial CIs – Renewable Energy

48. As at April 2008, Gloucestershire provided up to 6.61% of the South West region's total installed capacity for renewable electricity. This is equal to 10.24 Mega Watts of power. The majority *(over 9MW)* of the county's renewable energy was sourced from the by-products of waste management *(landfill gas and sewage gas sites)*.

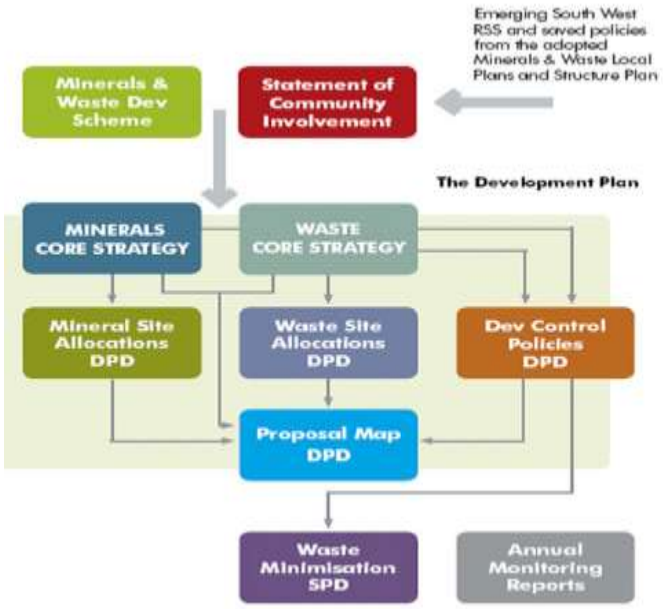
49. A total of 159 renewable heat projects, generating up to 6.22 Mega Watts of renewable heat, were also in operation in the county during 2008.

Section 3
Minerals and Waste Development Scheme Monitoring

50. A key role for the AMR is to review *'actual'* progress made in producing Local Development Documents (LDDs) against the preparation timetable and milestones set out in the Minerals & Waste Development Scheme (MWDS)[5].

51. Figure 1 below illustrates the Local Development Documents (LDDs) that are intended to form part of Gloucestershire's Minerals and Waste Development Framework (MWDF).

Figure 1: MWDF in Gloucestershire



52. The proceeding paragraphs provide a commentary on the preparation of local development documents during the AMR monitoring period (2008 - 2009). This is followed by a monitoring table, which measures document preparation against approved production milestones.

Document Commentary - Minerals & Waste Development Scheme (MWDS)

53. The Minerals and Waste Development Scheme (MWDS) is a public statement, which sets out *when* minerals and waste development plan documents (DPDs) are going to be prepared. It includes a series of production milestones for monitoring purposes. It also discusses the level of resources required and the potential constraints that may exist when preparing DPDs. The 4th Review MWDS provides the most up-to-date timetable covering the three-year period between 2008 and 2011. Three previous MWDS documents have been produced, covering a three-year rolling programme from 2005 onwards.

Document Commentary – Minerals Core Strategy (MCS)

54. The Minerals Core Strategy (MCS) will provide the overarching framework for managing the county's mineral resources. It is seen as a cornerstone DPD for the Gloucestershire Minerals & Waste Development Framework.

[5] More information on the MWDS can be found on the County Council webpage – http://www.gloucestershire.gov.uk/index.cfm?articleid=10577

55. As a result of a requirement to include locations for waste management sites in the WCS there were not any milestones for mineral documents produced within the monitoring period.

Document Commentary – Waste Core Strategy (WCS)

56. The Waste Core Strategy (WCS) will provide the overarching framework for delivering a sustainable waste management system within Gloucestershire. As with the MCS, it is seen as a cornerstone DPD within the Gloucestershire Minerals & Waste Development Framework.

57. During the monitoring period, the County Council successfully undertook consultation on **Sustainability Appraisal for Strategic Waste Sites**. Alongside this evidence was being gathered on a number of potential sites. This resulted in a large amount of technical work taking place to assess the suitability of the sites. The next key milestone is consultations on site options later in 2009. This will be discussed in next years AMR.

Document Commentary – Sustainability Appraisal (SA)

The County Council **must** carry out a Sustainability Appraisal (SA) of all development plan documents included within the Minerals & Waste Development Framework (MWDF). This requirement incorporates the European Directive on SEA – 2001/42/EC.

58. During the monitoring period, the following SA reports were published for public consultation –

- Gloucestershire Minerals and Waste Development Framework Sustainability Appraisal Context and Scoping Report for Strategic Waste Sites (July 2008).

59. All of the SA reports published to date are available to view and / or download on the County Council website.

Appropriate Assessment (AA) / Habitat Regulations Assessment (HRA)

60. The purpose of Appropriate Assessment (AA) / Habitat Regulations Assessment (HRA) is to ensure that the protection of the integrity of European sites is embedded in the planning process. The requirement for HRA of plans and projects such as MWDF, is outlined in Article 6(3) and (4) of the European Communities (1992) Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora ("Habitats Directive").

61. There were not any AA or HRA documents published during the monitoring period.

62. All AA / HRA reports published to date are available to view and / or download on the County Council website.

Table 1: Monitoring table for document preparation during the AMR period 1st April 2008 to 31st March 2009

MWDF Document	Document Preparation	Projected timetable as set out under MWDS Profile	MWDS Milestone Target	Actual Production	Achieved against MWDS Profile and Milestone Targets
Minerals Core Strategy	**Following representations by certain stakeholders including GOSW/RPB the WCS needs to incorporate locational aspects of strategic waste management sites. The timetable for DPD preparation was amended to allow for this process. This includes additional consultation on strategic waste sites which now requires to be built into the plan making process. This has subsequent repercussions on the preparation of MCS. The timing of these stages is affected by the prioritisation of the WCS.**	n/a	n/a	n/a	n/a
Waste Core Strategy	Pre-production period, **including commencement of site aspects of documents preparation and tendering consultants to carry out any technical work.**	May 2008 onwards		May 2008 onwards	✓
	Initial newsletter/call for sites on MSW strategic sites Issues and Options (Part of new Regulation 25)	Jun-08		June 2008	✓
	Preparation of site information/evidence gathering	June 2008 to November 2008		June 2008 to Nov 2008	✓
	Consultation with statutory bodies on context and scope of Sustainability Appraisal (SA) for Strategic Waste Sites took place for a statutory 5 week period	July/August 2008		July/August 2008	✓
	Technical assessment of site options	November 2008-January 2009		Nov 2008 -?	✓
	Consideration of technical options and discussions with stakeholders, and preparation of revised pre-submission document incorporating strategic site allocations (Reg 25)	February 2009 - May 2009		Feb 2009 - ?	✓

Section 4
Minerals and Waste Development Monitoring

Introduction to Monitoring

63. Monitoring Objectives (MOs) applied to this AMR are the same as those used in the Sustainability Appraisal which has been developed for the emerging MWDF.

64. SA is a statutory requirement for the emerging plans, strategies and proposals contained within the MWDF. The purpose of SA is to ensure that social, environmental and economic implications of plan making are fully considered. The conclusions of SA are vital in promoting sustainability in spatial policies for the future.

65. Each document in the MWDF will need to be tested against the SA objectives. Therefore, these objectives represent a consistent assessment tool that runs through the heart of the plan making process. Consequently the SA objectives have been applied to the AMR to join up monitoring with plan preparation as the county's minerals and waste local plans are converted into DPDs within the MWDF. This approach will deliver a consistent dataset that will be applicable historically and for the future.

66. The SA objectives for the MWDF have been developed on the basis of objectives / priority actions from –

- The Government's national sustainability strategies – 1999 and 2005. In particular, care was taken to ensure that all of the topics listed in SEA Directive Article 2001/42/EC 5(1) Annex 1(f) are covered by the SA objectives;
- "Just Connect" the Integrated Regional Strategy for the South West 2004-2026;
- Other relevant plans and programmes, resulting from key messages and the identification of specific sustainability issues;
- ODPM (now CLG) Guidance; and
- Statutory consultees and key stakeholders.

67. In terms of the form and content of the remainder of this section, each SA objective has been assessed against the Core Output Indicators (COIs) and Local Output Indicators (LOIs) of the AMR. Where available, datasets that are relevant to each indicator have been collected. In addition and where appropriate, SMART monitoring targets have also been measured.

Previous AMR Monitoring

68. The previous AMR applied the revised SA objectives. This will allow comparisons to be made between the monitoring periods.

69. Decision making on county matter minerals and waste planning applications is clearly a significant provider of evidence to support the AMR. Consequently the issues relating to planning applications within the AMR period provide the data for many of the AMR objectives.

A summary of these planning applications, including the nature of the proposal is included in Appendix D of the AMR.

70. Under transitional arrangements set out in the Planning and Compulsory Act 2004, Gloucestershire's adopted minerals and waste local plans retained development plan status for a period of three years until autumn 2007.

71. This resulted in the Secretary of State issuing two directions. The minerals direction sought to retain or *'save'* forty minerals local plan policies; all inset maps and all plan proposals. However, the waste direction only identified twenty-five policies to be *'saved'.* It also sought not to formally extend the plan's strategic and local waste allocations.

72. The consequences of the directions have had a important impact on the decision-making framework for minerals and waste proposals in Gloucestershire. It has resulted, potentially, in local policy gaps occurring in the development plan.

73. Consequently, the County Council prepared a new timetable and programme of work for replacement policies within a revised Minerals and Waste Development Scheme (MWDS). The updated MWDS was published in October 2008 and therefore is a contributor to this AMR.

74. However, for the purposes of AMR monitoring all minerals and waste policies from the previously adopted plans will continue to be measured. This approach should ensure continuity of data over the AMR monitoring period and previous years. This will be invaluable to recording change and policy successes, which will help in developing the evidence base for new, emerging policies.

75. In any event, in the absence of replacement policies for those not saved by the Secretary of State, these will still continue to form a material consideration until new DPDs are in place and adopted. This is potentially the same for Waste Local Plan 'unsaved' policies 4 and 5 and the associated preferred waste site allocations.

76. Copies of the directions have been included in Appendix C and more information on transitional arrangements and minerals and waste local plan directions can be found on the GCC webpage - http://www.gloucestershire.gov.uk/index.cfm?articleid=18022

AMR Objective 1: "To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home."

77. AMR Objective 1 is extremely wide ranging and could feasibly be attributed to a number of spatial planning issues. However, many of these will be covered later in this report. Nevertheless, for the purpose of a minerals and waste AMR, the principle of waste minimisation, including promoting the use of secondary and recycled aggregates appears to provide the most appropriate link to delivering this objective.

78. Minerals and waste planning has a vital part to play in securing new sustainable homes, particularly in making provision for minerals needed for construction, and supporting a waste management system capable of keeping up with demands but also in providing for the future.

79. Where practicable, secondary & recycled aggregates offer a sustainable alternative to using primary construction aggregates in the building of new homes. Their sustainable credentials arise from their application of by-products and discarded mineral materials *(secondary)* and re-use of construction and demolition *(C&D)* materials *(recycled)* in new development projects. This helps to conserve primary minerals and reduce the volume of waste being generated. This is being advocated by the Waste Minimisation in Development Projects SPD.

80. For monitoring purposes, the core output indicator of annual production data on secondary & recycled aggregates acts as a basic indicator for measuring the success of policies to promote the use of these materials. In the future there may be the opportunity for more sophisticated monitoring schemes to be developed to determine the level and type of use for secondary & recycled aggregates within new developments.

81. The most up-to-date data for secondary & recycled aggregates is collected for the annual period of 2005. Consequently, this will be used as the base date for the AMR. It is acknowledged that this was a number of years ago and is likely to have changed. However it is the only accessible data on this issue.

82. Waste minimisation represents a proactive approach to securing better management of our resources – including construction materials and waste that is generated. These aspects form a major part of the *'sustainable development'* agenda. As mentioned earlier, Gloucestershire County Council have been proactive on the issue by producing an SPD.

83. Nationally, focus has also been placed on waste minimisation with the introduction of the *Waste Strategy for England 2007*, and the resulting *Site Waste Management Plans Regulations 2008* which came in to force in April 2008.

84. An important part of implementing waste minimisation is the production and adherence to plans and programmes for waste minimisation in developments. This requires detailed statements of proposed action to accompany new proposals. Currently the focus for submission of statements is on major development schemes that are submitted across the county.

85. Consequently for AMR monitoring, the submission of waste minimisation statements with major proposals has been chosen for measuring the implementation of waste minimisation as a local output indicator. In time a more detailed monitoring system may be put in place to determine the quality of submissions.

Core Output Indicator

Annual production of secondary / recycled aggregates.

86. During 2005, the estimated production of secondary & recycled aggregates in Gloucestershire totalled 0.6 million tonnes. The majority of this material *(97%)* was derived from construction and demolition *(C&D)* waste. The remainder was made up of secondary sources such as container glass and road planings. It is estimated that the situation will have remained fairly consistent up to and including the monitoring period.

Local Output Indicator

Number of *'Major Development'*[6] applications that include a Waste Minimisation Statement as advised by the adopted WLP and the Adopted Supplementary Planning Document (SPD) for Waste Minimisation in Development Projects.

Table 2: Number of Waste Minimisation Statements submitted (2008-2009)

District	Total no. of *'major development'* applications	No. waste minimisation statements produced	As a % of total waste minimisation statements produced
Cheltenham	15	11	73%
Cotswold	35	3	9%
Forest	31	21	68%
Gloucester	14	5	35%
Stroud	10	3	30%
Tewkesbury	43	14	33%
TOTAL	**148**	**57**	**33%**

NB: The figures were obtained from application data between 01/04/08 and 31/03/09

Targets

To achieve 100% submission of waste minimisation statements in the county, for all major developments by 2009**.**

Discussion and Commentary

87. During the monitoring period, only 29% of planning applications for major developments were submitted with a waste minimisation statement.

88. Cheltenham Borough Council and Forest of Dean District Council were the most successful in pursuing waste minimisation statements. The proportion of applications in Cheltenham that were accompanied by a Waste Minimisation Statement significantly increased from the previous monitoring period.

[6] *A 'Major development' in this instance refers to a development of more than 10 houses or 0.5ha where the number of units is not defined; or over 1000sq.m in floorspace or above 1ha in size*

89. This is first monitoring period where data on the number of waste minimisation statements submitted alongside planning applications in Tewkesbury. This is due to an improvement on their online facilities. As a result it is difficult to ascertain if there has been an improvement in the numbers submitted.

90. Even though there was an increase in the number of waste minimisation statements submitted, the overall number still appears to be quite low compared to the total number of major development applications. It does fall short of the submission target of 100% set for 2009. However when looking back over previous years there appears to be a significant increase in the number of statements being submitted. This provides a positive picture and indicates that waste minimisation is becoming an increasingly important consideration in development schemes.

91. There may be certain factors which have contributed to the low submission rate. One of these could be the current threshold of *'major developments'* applied within the Waste Minimisation in Development Projects SPD and sourced from ODPM (now DCLG) Development Control Statistics may prove to be too broad in the context of major development schemes in Gloucestershire. This may be best exemplified in some of the rural areas of the county such as the Cotswold district. Here there are a number of agricultural developments over 1ha in size, submitted for determination each year. These proposals fall under the broad category of *'major developments'* for determination purposes. However, due to the nature and characteristics of these proposals, there is often limited scope to implement and enact waste minimisation.

92. In conclusion, the WPA will encourage the LPA's to improve performance by increasing the number of Waste Minimisation Statements submitted and exploring reasons why they might not be requested and take this into account in AMR presentation.

Link to Minerals & Waste Local Plans

93. The LOI used to monitor AMR Objective 1 is directly linked to the saved WLP policy 36 –*Waste Minimisation*.

94. Other relevant policies that may be indirectly linked to this objective include –
MLP policies E15, E16 and E19 relating to *safeguarding and enhancing the environment*; MLP policies A1 and A2 relating to *aggregate minerals supply* and WLP 45. However, these policies have not been monitored in this part of the AMR report as they are more appropriately covered by other objectives and local output indicators.

AMR Objective 2: "To safeguard sites suitable for the location of waste management facilities or future mineral development from other proposed development."

95. Identifying suitable sites for minerals and waste development can prove to be extremely challenging. Mineral sites are restricted to locations with the right underlying mineral resources, whilst sites for waste management are often found in areas of development pressure where competition for land is high.

96. As a result the planning system has an important role to play in identifying sites that could be developed for minerals and waste and for safeguarding such sites, where appropriate and necessary, from other forms of development. Furthermore, this approach may also be extended to existing waste management sites and also areas of potential workable minerals that could be sterilised by other surface development.

97. Monitoring within the AMR seeks to assess the effectiveness of promoting the development of minerals and waste facilities in Gloucestershire upon identified sites and the implementation of a site safeguarding strategy for existing operations. It will achieve this by reviewing all development types on preferred areas identified in the Adopted Minerals and Waste Local Plans[7] *(MLP and WLP)* and within a Mineral Consultation Area (MCA) for the Upper Thames Valley, also identified in the Minerals Local Plan. The county's preferred areas for minerals and waste and MCA area are set out in Appendix B of this report.

Core Output Indicator

98. There are no core output indicators for this AMR objective.

Local Output Indicators

The number and % of minerals and waste developments permitted upon existing sites or Preferred Areas identified within the adopted Minerals and Waste Local Plans (MLP & WLP).

Table 3: Minerals developments upon existing sites or preferred areas of the MLP		
Minerals	No. of permitted mineral developments	As a % of all permitted mineral developments (9)
Preferred Area	**0**	**0%**
Existing Site ~	**9**	**100%**

[7] *Technically, the Preferred Areas of the WLP are no longer formally part of the Development Plan, but are still a significant material consideration and as such carry substantial weight in the decision-making process until reviewed or replaced through a new DPD*

Table 4: Waste developments upon existing sites or preferred areas of the WLP		
Waste	No. of permitted waste developments	As a % of all permitted waste developments (19)
Preferred Area	**7**	**37%**
New Waste Sites*	**4**	**21%**
Existing Site ~ *(This includes existing operations that take place upon preferred areas)* #	**15**	**79%**

~*Existing sites* - includes development proposals that expand or vary the operations upon existing sites. In some areas these may be small scale operations.

* New Sites – new operations or extensions to existing operations that are not preferred areas within the adopted minerals or waste plans. Again in some cases these may be fairly small-scale operations.

The number of non-minerals & waste developments permitted upon Preferred Areas identified within the adopted Minerals and Waste Local Plans (MLP & WLP)

Table 5: Non-minerals & waste developments upon Preferred Areas of the MLP or WLP	
Preferred Area Type	No. of non-minerals & waste developments
Minerals	**0**
Waste	**2**

Number of non-mineral applications determined for sites within the Mineral Consultation Area (see Appendix), which required a minerals consultation.

Table 6: Non minerals and waste applications within the Minerals Consultation Area (2008-2009)	
Total no. of applications in MCA	**228**
No. of mineral consultations received by the MPA	**0**
Total no. of refused applications in MCA	**19**
Of these how many were refused on M&W grounds	**0**
Total permitted applications in MCA	**209**

Targets

99. There were no targets set for this AMR objective.

Discussion and Commentary

100. The majority of minerals and waste developments during the monitoring period *(86%)* were permitted upon existing sites or preferred areas as identified in the Minerals and Waste Local Plans. The remainder *(14%)* represented new permissions on land which was not allocated as a preferred area or included an extant minerals or waste use.

101. In terms of non-minerals and waste proposals in preferred areas, only a very small number *(2)* of these types of developments were permitted during the monitoring period. This is significantly below last years figure. The applications were for a Change of Use from a recycling facility to B1 and B8 use and for an extension to an existing building (not used for minerals or waste).

102. During the monitoring period, the Mineral Consultation Area (MCA) for the Upper Thames Valley experienced a number of planning proposals *(228)* and permissions *(209),* and a small number of refusals *(19)*. However, none of these applications involved a consultation with the County Council as the Minerals Planning Authority (MPA). It has been assumed that Cotswold District Council did not consider that there would be any minerals safeguarding issues, although the MPA cannot confirm this.

103. In summary, the adopted Minerals and Waste Local Plans have appeared to demonstrate a degree of strategic direction for new minerals and waste developments and the maintenance of existing infrastructure. The majority of new proposals permitted during the monitoring period, were located upon preferred areas or represented projects for the expansion or variation of existing operations.

104. However, in terms of safeguarding there is less certainty as to the ability of both plans to secure existing minerals and waste site use. During the monitoring period a total of 11 non-minerals and waste proposals were permitted on waste preferred areas.

105. Furthermore, the County Council as the Minerals Planning Authority (MPA) were not consulted on any development proposals submitted within the Mineral Consultation Area (MCA) for the Upper Thames Valley. The area of site safeguarding for minerals and waste will need to be carefully looked at within the emerging policies of the Minerals and Waste Core Strategies (MCS and WCS).

Link to Minerals & Waste Local Plans

106. The output indicators monitored within this AMR Objective are linked to MLP Policies A3, A4, A5, A6 & A7 relating to Aggregate Minerals Supply, MLP Policies SE3 relating to Safeguarding and Efficient Use of Mineral Resources, WLP Policy 4 Waste Management Facilities for Strategic Sites, WLP Policy 5 Waste Management Facilities for Local Sites, WLP Policy 6 Waste Management Facilities for 'Other' Sites and WLP Policy 7 Safeguarding Sites for Waste Management Facilities.

AMR Objective 3: "To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county."

107. Minerals and waste developments can potentially affect the health and well being of local communities in a number of ways such as noise, traffic or pollution.

108. The Environment Agency (EA) has a key role in monitoring the day-to-day operations of waste and, where appropriate, mineral developments. Local Environmental Health Officers (EHOs) and Local Health Authorities (LHAs) are also involved in the management of potential health and well-being impacts as expert advisors on planning proposals.

109. Nevertheless, it is specifically through planning and the development control system that health and well being matters are carefully assessed. These issues need to be reviewed with all new proposals regardless of size or scale, to determine either their initial or cumulative impact.

110. To monitor health and well being impacts, the AMR proposes to look at minerals and waste permissions and refusals during the monitoring period. For permissions it will focus upon those schemes that propose operational *'improvements'* to existing sites. These may include – enclosures around noisy machinery; reduction of vehicle movements; or improvements to water treatment processes.

111. For refusals it will look at reasons relating to perceived dangers to health and well being from new proposals.

112. It is considered that this monitoring dataset will give an insight into the consideration of health and well being at the planning application stage and also the proactive response to health and well being concerns by minerals and waste industries.

Core Output Indicator

113. There are no core output indicators for this AMR objective.

Local Output Indicators

The number and % of all permitted minerals and waste applications that were for operational *'improvements'* to existing sites that would reduce the risk to public health.

114. Of the 27 permitted minerals and waste developments, 22 proposals were upon existing sites. From this, a total of 1 proposals were for operational improvements, which may directly or indirectly seek to reduce risk to health and well being.

The number and % of all minerals and waste refusals where concerns over public health acted as part of the reason for refusal.

115. Out of the 4 refused minerals and waste proposals during the monitoring period, none citied reasons for refusal directly relating to public health and well being.

Targets

116. There were no targets set for this AMR objective.

Discussion and Commentary

117. During the monitoring period, only a proportion *(7%)* of minerals and waste permitted proposals appeared to focus on improving health and well being impacts. Albeit this figure does not represent the majority of permissions, this should be qualified in that *a further three proposals on new sites were for developments that would directly or indirectly improve health and well-being.* It is noted that many of the monitored *'improvement'* permissions related to the water management industry; the treatment of sewage and measures to reduce the potential for water contamination. Many of the applications that did not appear to consider health and well-being were for retrospective applications relating to soil importation and health and well-being consideration may not have been appropriate in these instances.

118. The data concerning refusals would initially appear to indicate that health and well-being did not play an important part in the determination of minerals and waste proposals. However, reasons for refusal in 2 of these 4 refusals did include highway safety which does indirectly relate to health and well-being. Therefore many related amenity conditions (such as for noise, dust, traffic movements) will have an indirect relationship to health improvement issues. These issues have been considered under AMR Objective 5.

Link to Minerals & Waste Local Plans

119. The output indicators monitored within this AMR objective were not specifically linked to a particular policy set out within the minerals or waste local plans.

120. However, many of the minerals and waste local plan policies do indirectly relate to the protection of health and well-being within the county.

121. MLP Policy E15 and E20 relating to *Safeguarding and Enhancing the Environment*; MLP Policy R2 relating to *Reclamation of Worked out Mineral Sites*; MLP Policies DC3 and DC5 relating to *Development Control Criteria for Future Mineral Development*; WLP Policy 37 *Proximity to Other Land Uses*; WLP Policy 38 *Hours of Operation* and Policy 45 *Planning Obligations* have clear links to the achievements of output indicators and therefore could be closely attributed to the overall AMR objective.

AMR Objective 4: "To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds."

122. AMR Objective 4 is extremely wide ranging and could potentially be covered by a number of spatial aspects relating to minerals and waste developments.

123. However, in a number of cases, most of the spatial aspects reflected in Objective 4 have been or will be adequately covered elsewhere in this report – for economics & employment *(see Objective* 7); and more general sustainable development matters *(see Objective 1)*.

124. Nevertheless, the AMR has been able to identify an appropriate minerals & waste link to Objective 4, through non-aggregate production for limestone, sandstone, clay and their associated landbanks.

125. Non-aggregate minerals worked in Gloucestershire such as building stone, are an important contributor to the maintenance and preservation of the county's historic building fabric. This in turn secures a recreational and economic resource primarily through tourism and more indirectly, an educational resource through the observation and practice of traditional construction techniques. Furthermore, non-aggregate minerals in the form of clay, also provide a direct economic and employment resource through a supply of minerals for brick manufacturing at brickworks.

Core Output Indicator

126. There are no core output indicators for this AMR objective.

Local Output Indicators

Annual production of non-aggregate stone

Table 7: Non-Aggregate Stone Production (2008)			
Mineral Resource Area	Mineral Type	Annual Production 2007	As a % of total non-agg production
Cotswolds	Limestone	86,150t	**0.57%**
Forest of Dean	Limestone	49,086t	**0.32%**
	Sandstone	16,696t	**0.11%**
TOTAL	**-**	**151,210t**	

127. During 2008, nearly 0.15mt (*148,210t)* of non-aggregate mineral was supplied from Gloucestershire. The majority *(56%)* was made up of limestone from the Cotswold resource area.

Annual production of natural building & roofing stone

Table 8: Building & Roofing Stone Production (2008)		
Mineral Type	Annual Production 2008	As a % of total building & roofing stone production
Limestone	39,382t	70%
Sandstone	16,696t	30%
TOTAL	**56,078t**	

128. Most of Gloucestershire's natural building and roofing stone *(70%)* was sourced from limestone. The remainder was made up of sandstone (30%).

The non-aggregate Reserves *(excluding clay)*

Table 9: Non-aggregate Landbank *(excluding clay, but including 'dormant' reserves)* As at 31/12/2008			
Mineral Resource Area	Mineral Type	Estimated landbank	As a % of total non-agg landbank
Cotswolds	Limestone	3.03mt	**72%**
Forest of Dean	Limestone	0.55mt	**13%**
	Sandstone	0.63mt	**15%**
TOTAL	**-**	**4.21mt**	

129. Excluding clay, the non-aggregate landbank for Gloucestershire totalled 4.21mt as at the end of 2008. The majority of remaining reserves lie within the Cotswold resource area *(72%).* The remainder is located within the Forest of Dean.

Annual Clay production

Table 10: Clay Production * (2008)
0.05 million tonnes

**Estimate based on 2008 production figures*

Clay reserves

Table 11: Clay reserves as of 31/12/2008*
0.84 million tonnes

**Estimate based on 2008 production figures*

Target

130. There were no targets set for this AMR objective.

Discussion and Commentary

131. Approximately 35% of non-aggregate minerals (excluding clay) consisted of natural building and roofing stone. The remainder included agricultural lime and minerals for other non-specified activities.

132. In terms of natural building and roofing stone, 2008 supplies showed only a very decline *(less than 2000t)* from the previous year, 2007. One factor that should be considered alongside this point is the economic conditions during the monitoring period. There has been a slow down in the construction sector and this would have a direct impact upon demand of stone.

133. Due to the lack of consistent year-on-year data for clay, it is not possible to provide a comparative analysis on previous years. However, it is anticipated that a full review of clay supplies and reserves will be carried out in the near future and will be reported upon. Broadly speaking, reserves of clay for brick-working appear satisfactory for the immediate future.

Link to Minerals & Waste Local Plans

134. MLP policies NE1; *Building Stone* and NE2; *Clay* are directly covered by AMR Objective 5. The datasets used reflect the evolving annual level of production and availability for future working of non-aggregate minerals.

AMR Objective 5: "To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development."

135. Minerals and waste developments can have a major impact on the amenity of local communities if not properly assessed, checked and monitored.

136. It is extremely difficult to define what *'amenity'* covers. However, it is generally described as the satisfactory aspects of a location, which contribute to its overall character and enjoyment by residents and / or visitors.

137. Many impacts, which contribute to the overall pictures of 'amenity', are covered in other parts of this report, in particular AMR Objectives 3, 8, 11 and 12, which deal with health, pollution, protecting the natural environment and reducing adverse impacts of transportation. Consequently, this part of the report is focused upon the remaining key amenity impacts – noise disturbance; operational hours; and lighting.

Core Output Indicator

138. There are no core output indicators for this AMR objective.

Local Output Indicators

The number and % of minerals & waste permissions, which include conditions relating to -

- Noise;
- Hours of Operations; and
- Lighting.

Table 12: Conditions relating to amenity			
Amenity Issue	No. of permissions	As a % of permission including amenity conditions	As a % of total permissions (27)
Noise	15	65%	59%
Hours	23	100%	85%
Lighting	5	22%	19%

NB. *Some permissions contain more than one condition relating to the amenity issues being monitored*

139. Of the 27 minerals and waste permissions granted during the monitoring period, 23 *(85%)* contained conditions that related to the amenity issues listed above.

The number and % of minerals and waste refusals where amenity was cited within the reason for refusal.

140. Of the four refused minerals and waste proposals during the monitoring period, one citied noise within the reason for refusal. The decision notice stipulated that the application failed to demonstrate how the resulting noise from the proposal would be sufficiently dealt with.

Targets

141. There were no targets set for this AMR objective.

Discussion and Commentary

142. The need for amenity conditions is very much dependent upon the nature of the operations being proposed and the proximity to nearby sensitive land uses. Certain operations and sites will therefore require far more stringent conditions than others.

143. Nevertheless, the monitoring data would suggest that the issue of 'amenity' is a key consideration during the determination of minerals and waste proposals. The majority of permissions granted *(85%)* include conditions relating to this matter.

144. The four mineral and waste applications that were approved without 'amenity' conditions were for sewages works (new and alterations). It is likely that the operation of these works are such that they don not necessitate stringent amenity conditions.

Link to Minerals & Waste Local Plans

145. WLP policy 38 – *Hours of Operation* specifically relates to the monitoring of AMR Objective 5. However, other policies can also be linked to the objective. These include: MLP Policies E14, E15, E16, E17, E18, E19, E20 concerned with safeguarding and enhancing the environment; Policy NE2 – O*ther Non-energy Minerals*; Policy EM1 – *Energy Minerals*; MLP Policy R2 relating to the reclamation of worked out mineral sites; MLP Policies DC2, DC3, DC5 and DC7 relating to development control criteria; WLP Policy 37 – *Proximity to Other Land Uses*, WLP Policy 40 – *Traffic*; WLP Policy 41 – *Public Rights of Way*; WLP Policy 43 – *After Use* and WLP Policy 45 – *Planning Obligations*.

AMR Objective 6: "To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society."

146. Minerals contribute greatly to our prosperity and quality of life, and are major factors in developing sustainable communities. Consequently, sufficient and appropriate provision must be made to meet demand for minerals now and in the future.

147. Conserving mineral resources from inappropriate development is also an important aspect of minerals planning and falls within the wider sustainability agenda of ensuring resources for future generations. Within this AMR the issue of conserving mineral resources is covered under AMR Objective 2.

148. The datasets set out under this AMR objective are concerned with the annual period of 2008 rather than the prescribed monitoring period 2008 –2009. This is because the data is collected for Government and Regional purposes based on calendar years.

Core Output Indicator

Annual production of primary land-won aggregates *(Crushed Rock and Sand & Gravel).*

Table 13: Annual production of aggregates (2008) (In million tonnes)		
Time Period	Crushed Rock Limestone	Sand & Gravel
2008	1.61 mt	0.66 mt

Local Output Indicators

Annual Production of Crushed Rock divided between the two resource mineral areas of Gloucestershire – Forest of Dean and the Cotswolds.

Table 14: Annual production of crushed rock aggregates (2008)		
Crushed Rock Resource Area	Annual Production (in million tonnes)	As a % of total crushed rock Production
Forest of Dean	1.22 mt	76%
Cotswolds	0.39 mt	24%

Aggregate Reserves for Crushed Rock and Sand and Gravel.

Table 15: Aggregate Reserves as at 31/12/2008		
Time Period	Crushed Rock	Sand & Gravel
31/12/2008	25.11mt	7.72mt

NB This figure removes 'dormant' reserves which are 4.7mt of crushed rock.

Targets

149. There were no targets set for this AMR objective.

Discussion and Commentary

150. Crushed rock and sand & gravel production during 2008 has decreased by 0.49mt and 0.24mt respectively since 2007. The economic situation within the monitoring period was highlighted earlier in the report and this is likely to have had an impact upon the production of crushed rock and sand and gravel.

151. The production split for crushed rock between the two key resource areas of the Forest of Dean and the Cotswolds, has changed since 2007 by 5%. This has seen an increase for the Forest of Dean of 5% and therefore a decrease has occurred in the Cotswolds again of 5%.

152. As at the end of 2008, the aggregate landbank for Gloucestershire for both crushed rock and sand and gravel had decreased by 2.39mt and 0.98mt respectively compared to the previous year of 2007. This change has also had an impact on the remaining years of the landbank. This now stands at 10.3 years for crushed rock and 6.8 years for sand & gravel (based on National and Regional Guidelines for Aggregate Provision 2001- 2016, June 2003 and sub regional apportionment RSS with SoS changes July 2008).

Link to Minerals & Waste Local Plans

153. Minerals Local Plan (MLP) Policies A1, A2 and A3 relating to aggregate minerals supply, are specifically monitored by AMR Objective 7. MLP Policies A4, A5 and A6, also relating to aggregate minerals supply and Policies SE1, SE2, SE3 and SE4 are relevant to this AMR Objective.

154. Increasing the production of secondary & recycled aggregates should have an impact on the overall aggregate supply for the county. As a consequence, Waste Local Plan (WLP) Policies 12, regarding inert recovery & recycling, and 36 for waste minimisation can also be linked to AMR Objective 7.

Objective 7: "To provide employment opportunities in both rural and urban areas of the county, promoting diversification in the economy."

155. Existing and potential mineral and waste developments can provide employment opportunities in both rural and urban areas of Gloucestershire.

156. In addition to the operational roles on-site, employment opportunities can arise from indirect activities such as transportation and servicing.

157. At present accurate employment data cannot easily be aggregated down to total jobs covered by minerals and waste industries. However, sector data have been used in the contextual indicators (CIs) for this report *(see section 2)* and this therefore provides an indication of job numbers.

158. For the purpose of the AMR the development of new minerals and waste facilities has been seen as the most reliable indicator available for determining job creation from minerals and waste industries. Although this indicator does not necessarily provide any employment figures or reconcile the impact of extending and expanding operations, the creation of brand new facilities should offer an insight into economic activity and the potential to stimulate the local minerals and waste job market.

Core Output Indicator

159. There are no core output indicators for this AMR objective.

Local Output Indicator

Number of new minerals and waste management developments permitted during the monitoring period. ~ - *'New' in this context only relates to brand new facilities and does not include extended, expanded or revised minerals ad waste operations.*

160. Of the 27 minerals and waste permissions granted during the monitoring period, none were classified as 'new' developments that could result in new employment opportunities within the minerals and waste sector.

Targets

161. There were no targets set for this AMR objective.

Discussion and Commentary

162. This indicator does not take into account changes that may have occurred within the existing network of minerals and waste developments. These could include closure, downsizing, and / or internal expansion. Furthermore, the current dataset excludes extension and expansion permissions for minerals and waste development. These types of developments may also generate a change in employment prospects. However, it is extremely difficult to distinguish between those developments that represent only operational expansions such as quarry extensions, and those, which represent company expansions with a potential increase in workforce – such as additional machinery and increased capacities.

163. In August 2007 Drybrook Quarry in the Forest of Dean ceased operation. This was due to the slow down in construction which has direct impact upon demand for building supplies. It led to the loss of 10 jobs[8].

164. In conclusion the current AMR monitoring of minerals and waste developments and employment shows clear limitations. As a result it will require a significant revision in the future if it is to make any meaningful contribution to monitoring local strategies and policies. One option may be to gain data from planning application forms. However, the details on employment are not always submitted.

Link to Minerals & Waste Local Plans

165. Minerals Local Plan (MLP) policies E16 for safeguarding and enhancing the environment; NE1 and NE2 relating to clay and building stone; EM1 and EM2 relating to energy minerals; and DC2 and DC3 concerning development control criteria, represent the most applicable minerals policies for AMR objective 7.

166. In terms of Waste Local Plan (WLP) policies – 4, 5, 6, 7 relating to facilities and operations; and 8,9,10, 11, 12, 13, 14, 15,16 and 42 relating to different types of waste management facilities and after use, can be linked to AMR objective 7.

[8] Data from Gloucestershire Economic Bulletin Issue 32 Christmas 2008

AMR Objective 8: "To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity."

167. Gloucestershire has a rich and diverse environment, which includes a range of local, national and international designations. The details of Gloucestershire's environmental designations are highlighted in section 2 of this report.

168. Protecting the county's environment from inappropriate development is a key planning priority. To help monitor whether this is occurring, this AMR objective is focused upon minerals and waste proposals in environmentally designated areas.

169. Although this approach is quite basic and does not indicate potential levels of impact, it should give an insight into the land-use pressures of minerals and waste on designations used to protect and manage certain environmental features and qualities. It is also important to note that not all designations are easy to monitor (e.g landscape character).

Core Output Indicator

170. There are no core output indicators for this AMR objective.

Local Output Indicators

The number of minerals and waste proposals determined upon international, national and local environmental designations.

Table 16: Minerals and waste planning proposals on sites with environmental designations				
	AONB	Green Belt	SSSI	KWS
Permitted Applications				
Minerals	3	0	0	0
Waste	3	0	0	0
Total	**6**	**0**	**0**	**0**
Refused Applications				
Minerals	0	0	0	0
Waste	0	1	0	0
Total	**0**	**1**	**0**	**0**

The number and % of minerals and waste refusals where environmental matters such as landscape or designated sites, were citied in the refusal reasons.

171. Out of the 4 refused minerals and waste proposals, none cited environmental matters as a reason for refusal.

The number and % of all permitted minerals and waste applications that included conditions related to ecology and biodiversity.

172. Of the 27 permitted minerals and waste developments, 8 (30%) permissions contained a condition related to ecology and biodiversity.

Targets

173. There were no targets set for this AMR objective.

Discussion and Commentary

174. There were 6 mineral and waste developments permitted within AONBs. This is expected as over 50% of the county is covered by AONB designations. Furthermore, a majority of the county's mineral resources lie within an AONB designation. Of the 2 waste permissions, 1 was a variation of an existing permission and the other related to landscaping of a garden. These were both relatively minor applications.

175. Green Belt has been included in this section, while not a specific designation for landscape or biodiversity purposes, its boundaries are clearly defined. Its purpose is to maintain openness or check urban sprawl which can be related to the AMR Objective.

176. Only one of the decided applications within in the monitoring period was located in the Green Belt. This application was refused but the refusal reasons did not mention impact upon Green Belt. It should be noted that there is an existing waste use on the site

Link to Minerals & Waste Local Plans

177. Minerals Local Plan (MLP) Policies E1, E2, E3, E8, E9, E10 relating to safeguarding and enhancing the environment; R2 and R4 concerning reclamation of worked out mineral sites and DC5 covering development control criteria can be linked to AMR Objective 8.

178. In terms of Waste Local Plan (WLP) Policies – 23, 24 and 25 relating to nature conservation and 26, 27 and 35 for landscape and the Green Belt are the most applicable to AMR Objective 8.

AMR Objective 9: "To protect, conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage."

179. Gloucestershire has been inhabited for over 5000 years and is rich in successive generations of archaeological remains. The county also boasts a wealth of fine vernacular architecture including the world-famous Cotswold villages.

180. Many of the geological resources within the county are located at sites with archaeological remains. Although waste sites tend to be located on previously developed land, it is still important to ascertain whether there any nearby sites with archaeological and/or architectural heritage that may be affected by the development.

181. Large planning applications, particularly those accompanied by an Environmental Impact Assessment (EIA), will often include results from archaeological surveys performed prior to submission.

182. To ensure protection of important sites, the County Archaeologist is consulted on almost all applications related to minerals and waste.

183. Local output indicators have been identified which monitor the number of permissions which either contain archaeological conditions or have been refused with archaeology listed as a reason for refusal.

184. For this AMR, the local indicators have been limited to archaeology. However, it may be possible for future AMRs to develop further indicators which could assess the impact of minerals and waste developments upon other important assets such as listed buildings, locally important sites or conservation areas.

Core Output Indicator

185. There are no core output indicators for this AMR objective.

Local Output Indicators

The number and % of all permitted minerals and waste applications that included conditions related to archaeology.

186. Of the 27 permitted minerals and waste developments, 5 permissions contained a condition related to archaeology.

The number and % of all minerals and waste refusals where archaeology was cited as a reason for refusal.

187. Out of the 4 refused minerals and waste proposals during the monitoring period, none citied archaeology as a reason for refusal.

Targets

188. There were no targets set for this AMR objective.

Discussion and Commentary

189. With only five permissions containing a condition relating to archaeology and none being refused on archaeological grounds it would initially appear that archaeology is not a key consideration when determining minerals and waste applications.

190. However, it should be borne in mind that archaeological conditions will usually only be applied, or proposals refused on archaeological grounds, on recommendation from the County Archaeologist. This would be for planning application sites where there is known or suspected archaeological heritage.

191. The type of application most likely to conflict with archaeological interests is in association is new mineral extraction. In most of these cases the County Archaeologist will advise to pre-application assessment to be included within a proposal. The outcome of such an assessment may then influence the consideration of the proposal including any conditions attached.

Link to Minerals & Waste Local Plans

192. Minerals Local Plan (MLP) Policies E4, E5, E6, E7 and E8 relating to safeguarding and can be linked to AMR Objective 9.

193. In terms of Waste Local Plan (WLP) Policies – 28-31 relating to archaeology and the historic environment are the most applicable to AMR Objective 9.

AMR Objective 10: "To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply."

194. Gloucestershire has an incredibly strong relationship to its *'water resource'.* It is estimated that the county has over 5000 kilometres of watercourses running across it. Geographically, Gloucestershire is dominated by floodplain land created by the widening of the River Severn to become the Severn Estuary. Geologically it is also underlain by a major aquifer of high to intermediate vulnerability.

195. For the residents of the county, water can act as a provider and a major hazard. The key rivers of Gloucestershire, and in particular the River Severn, have supported economic and cultural growth for centuries through agricultural irrigation and as a means of transport and trade. However, in low-lying areas, frequent and often severe flooding has resulted in episodes of significant damage to both livelihoods and homes including the severe flooding which occurred during the summer of 2007. The advent of climate change may increase this risk by intensifying local flooding events.

196. For all future development, a careful balance needs to be struck in Gloucestershire between the *'need'* for the proposal, the management of flood risk and the safeguarding of water resources.

197. For minerals and waste development, water resource is also a very important issue due to heightened concern over potential disruption to and / or contamination of watercourses and water supplies.

198. For monitoring purposes, the AMR proposes to highlight two key water resource issues – *flooding and water supplies*. In respect of flooding it will look at permitted developments and refusals on the county's designated floodplain, whilst for water supplies it will review the use of this matter in refusal reasons. The monitoring of water pollution and contamination issues is adequately addressed later in this report under AMR Objective 11.

Core Output Indicator

199. There are no core output indicators for this AMR objective.

Local Output Indicators

The number and % of minerals & waste permissions located upon designated floodplain land.

200. Of the 27 mineral and waste developments granted during the monitoring period, a total of 3 *(11%)* developments were located upon areas designated as floodplain land.

The number and % of minerals & waste refusals where the *floodplain* and *safeguarding water supplies* acted as part of the reason for the refusal.

201. Of the 4 minerals and waste developments refused during the monitoring period, none of which highlighted flooding or water resource safeguarding as one of the grounds for refusal.

Targets

202. There were no targets set for this AMR objective.

Discussion and Commentary

203. Of all minerals and waste developments permitted during the monitoring period, only a small number *(11%)* were within the designated floodplain. All of the approved applications within a floodplain were for extensions to existing uses or buildings on the site.

204. Although the dataset only provides an annual *'snapshot'* of minerals and waste development in the floodplain, it does elude to some form of control over development within this sensitive designation. This may be as a result of heightened awareness of floodplain issues either prior to, and / or during the determination of, new proposals.

205. In terms of refusals, no applications were refused on the grounds of water supply safeguarding. Although only a very limited dataset, this may indicate that prospective proposals are appropriately resolving water supply issues as part of their application; either within their submission and / or through the acceptance of conditions. It may also demonstrate that less certain and risky schemes in terms of safeguarding water supplies, are simply not coming forward due to the prospect of failure.

Link to Minerals & Waste Local Plans

206. The Minerals Local Plan policies specifically related to this AMR Objective are Policies E11, E12 and E13 (Safeguarding and Enhancing the Environment) and Policy DC5 (Development Control Criteria for Future Mineral Development).

207. The Waste Local Plan policies specifically related to this AMR Objective are Policies 33 and 34 (Water) and Policy 45 (Planning Obligations).

AMR Objective 11: "To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle."

208. Most industrial developments (including minerals and waste) can give rise to potentially damaging pollution impacts such as – gaseous emissions; particulates; bioaerosols; leakages; and water, land and soil contamination. As a result is it important that pollution control is carefully reviewed during the determination of all development proposals.

209. For AMR monitoring, reviewing the use of planning conditions offers a basic insight into the significance of pollution control with minerals and waste developments. The frequency of different conditions should also indicate key areas where restrictions are deemed necessary. Furthermore, monitoring pollution control through planning refusals, also gives an insight into the minerals & waste industry's ability to overcome and address concern over potential pollution impacts.

Core Output Indicator

210. There are no core output indicators for this AMR objective.

Local Output Indicators

The number and % of minerals & waste approvals that included conditions concerning air or water pollution control.

211. Of the 27 minerals and waste developments granted during the monitoring period, 17 *(63%)* contained pollution control conditions. Broken down between condition types, 6 permitted minerals and waste developments sought to control water impacts, 3 proposed developments included conditions related to air protection and 8 had both air and water conditions.

The number and % of all minerals & waste refusals where environmental protection acted as part of the reason for refusal.

212. Out of the 4 refused minerals and waste developments during the monitoring period, one included air pollution control matters within the reasons for refusal.

Targets

213. There were no targets set for this AMR objective.

Discussion and Commentary

214. During the monitoring period, pollution control appeared to be a notable issue with the determination of minerals and waste developments. 63% of all new permissions contained conditions relating to this matter. According to the dataset, *'water pollution'* was also the most significant pollution control issue for new permissions. This is unsurprising in Gloucestershire, due to the presence of a substantial aquifer, a complex groundwater and network and the fact that minerals and waste operations often evoke heightened concerns over water pollution.

215. The eight permissions which did not contain pollution control conditions were predominantly associated with either control kiosks for sewage treatment with the remaining permissions being for variations of conditions. In all of these instances the attachment of such conditions to the

permissions would not have been appropriate.

216. One of the refused application included a refusal reason based on air pollution. The remaining three applications did not contain pollution-related reasons for refusal. This is likely to have been because the proposed developments would not have generated a significant environmental pollution problem that could not have been mitigated through a condition attached to a permission should the proposal have been permitted.

Link to Minerals & Waste Local Plans

217. The key Minerals Local Plan (MLP) policies monitored through AMR Objective 11 include E11 and E13 for safeguarding and enhancing the environment; and DC1 covering development control criteria.

218. From the Waste Local Plan (WLP), Policies 33 for water; 37 regarding proximity to other land uses; and 45 for planning obligations are most applicable in respect of AMR objective 11.

AMR Objective 12: "To reduce the adverse impacts of lorry traffic on communities through means such as:
a) reducing the need to travel
b) promoting more sustainable means of transport
c) sensitive lorry routing
d) the use of sustainable alternative fuels
e) promoting the management of waste in one of the nearest appropriate installations."

219. Many minerals developments are often located in rural, remote and distant locations, away from urban centres and key market areas. These locations are rarely served, other than from road transport, which offers limited capacity to handle minerals and waste freight. Waste developments generally occur in urban and urban fringe locations, these are more often subject to challenging highway issues and limited alternative forms of transport.

220. As a result new minerals and waste developments must carefully consider how they are going to reconcile a number of potential adverse impacts resulting from road transport –

- Noise and vibration;
- Pollution and health related impacts;
- Highway safety; and
- More global issues associated with vehicle emissions.

221. The determination of minerals and waste developments provides an opportunity to remove and / or mitigate against any potential adverse impacts from road transport. This can be achieved either through revisions to proposals or through road / highways related conditions. Examples of these include – provision for wheel-washing facilities; the sheeting of lorries; restricted vehicle movements and routing plans to avoid unsuitable and sensitive areas.

222. The monitoring of AMR Objective 12, seeks to review the consideration of road transport with new minerals & waste proposals during the monitoring period and whether pro-active measures are being used to deliver a reduction in potential adverse impacts.

Core Output Indicator

223. There are no core output indicators for this AMR objective.

Local Output Indicators

The number and % of minerals & waste permissions that included one or more of the following highway conditions

- Restricted vehicle numbers;
- Restricted tonnages;
- Restricted routings; and
- Highway mitigation measures – *the need for wheel washing, lorry sheeting etc.*

224. Of the 27 minerals and waste permissions granted during the monitoring period, 21 *(78%)* included highways conditions, as defined within the LOI. A breakdown of the conditions is presented in table 17.

Table 17: The application of highway conditions (2008 – 2009)			
Type of conditions	Frequency of use	As a % of permissions including highway conditions (20)	As a % of all permissions (2008-2009)
Vehicle numbers	9	43%	33%
Tonnage	10	48%	37%
Routing	5	24%	19%
Mitigation	12	57%	44%

NB. Some permissions contain more than one highway condition being monitored

The number and % of all minerals and waste refusals, where highways was citied as part of the reason for refusal

225. Out of the 4 minerals and waste developments refused during the monitoring period, 2 *(50%)* included highway matters as one of the grounds for refusal.

Targets

226. There were no targets set for this AMR objective.

Discussion and Commentary

227. Road transport appears to be a significant consideration in the determination of new minerals and waste developments in Gloucestershire. During the monitoring period, over three quarters included conditions seeking to restrict and / or mitigate against highway impacts. Similarly a notable proportion *(50%)* of refusals, citied highways matters as one of the decision-making factors.

228. Provision for mitigation measures such as wheel washing, represented the most frequently used set of conditions. This is most likely because highway mitigation conditions are likely to be appropriate to a significant number of mineral and waste proposals. Whereas other highways related conditions are very much dependent upon the site location and the surrounding infrastructure.

229. During the monitoring period a total of 6 *(22%)* of the permitted minerals and waste developments did not include highways conditions. A number of factors may explain their exclusion from this important issue –

- Permissions related to sewage treatment where vehicle movements are limited (4 permissions).
- Retrospective development, where the substantive minerals or waste activity has already been completed or with limited vehicle movements (2 permissions).

Link to Minerals & Waste Local Plans

230. The key Minerals Local Plan (MLP) Policies associated with AMR Objective 12 are –E19, E20 and E21 covering safeguarding and enhancing the environment; and DC5 relating to development control criteria.

231. The principle Waste Local Plan (WLP) policies applied to AMR Objective 12 include – 3, which sets out the *'Proximity Principle'*; 39 for transport, 40 covering traffic and 45 regarding planning obligations.

AMR Objective 13: "To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity."

232. Although a temporary development, mineral working will irreversibly change landscapes and environments. Uncontrolled and / or poorly managed change can result in significant adverse impacts, particularly where sites are abandoned following cessation of working. This is an unsustainable approach to minerals planning and represents a missed opportunity and resource.

233. However, mineral working can provide excellent opportunities to create and enhance the environment, including the biodiversity potential of an area. There are numerous examples across Gloucestershire, where worked-out mineral sites have supported a range of important environmental designations such as key wildlife sites, RIGS and SSSIs.

234. To ensure that maximum benefit is achieved from worked-out mineral sites, restoration must be given suitable attention and consideration at the earliest possible opportunity. This may include the approval of full and complete restoration schemes alongside new working.

235. Accurately recording and monitoring the success of mineral restoration represents a notable challenge for the AMR. Minerals working and associated restoration rarely occur as discreet operations and are often practiced as a progressive technique. As a result restoration can take a number of years to be completed, stretching over several AMR monitoring periods.

236. Consequently, this AMR has sought to focus on the policy mechanism behind securing restoration schemes at mineral sites rather than the quality and delivery of them on the ground.

Core Output Indicator

237. There are no core output indicators for this AMR objective.

Local Output Indicator

The number and % of mineral permissions that include conditions concerning the delivery of mineral restoration schemes.

238. During the monitoring period 9 mineral permissions were granted for minerals related developments. A total of 8 *(89%)* contained conditions concerning the delivery of mineral restoration schemes.

Target

239. There were no targets set for this AMR objective.

Discussion and Commentary

240. It appears that mineral restoration is an important consideration for Gloucestershire in the determination of minerals proposals. This is recognised in the high proportion *(89%)* of new developments that included conditions for minerals restoration schemes. The remaining application was for reserved matters (design and appearance) related to an earlier planning application. Therefore a condition on restoration would not have been necessary.

Link to Minerals & Waste Local Plans

241. Minerals Local Plan (MLP) Policies E9 and E10 for safeguarding and enhancing the environment); R1, R2, R3 and R4 for reclamation of worked out mineral sites and DC5 covering development control criteria are most applicable with AMR objective 13.

242. As this AMR objective is specifically concerned with mineral restoration, no Waste Local Plan (WLP) policies apply.

Objective 14: "To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent/Reduce, Reuse, Recycle, Recover, Dispose) to achieve the sustainable management of waste."

243. Managing waste in Gloucestershire has been dominated by landfilling. Currently a significant amount of waste, which could be re-used or recycled, is disposed of to landfill sites.

244. This approach puts pressure on resources, which could otherwise be offset by the reuse or recycling of waste and will soon contravene National and European regulations. Waste therefore needs to be considered as a resource, rather than something to be discarded.

245. Consequently, national and regional strategies support the practical local delivery of diverting waste away from disposal to landfill, through the principles of the *'Waste Hierarchy'* and subsequent development of appropriate waste management infrastructure.

246. The Waste Hierarchy promotes the practical application of waste management practice and technologies based on their relative level of sustainability. At the top of the hierarchy is – waste prevention/reduction; followed by reuse; recycling; recovery and then disposal.

Core Output Indicators

Amount of municipal waste arising, and managed by management type and the percentage each management type represents of the waste managed.

Table 18: Municipal Solid Waste (MSW) Managed during 08-09	
Waste Management Method	Amount of MSW managed *(in tonnes)* and % of total MSW
Composted	**50,703t**
As % of annual MSW	17%
Recycled *(incl. inert & reuse)	**80,108t**
As % of annual MSW	27%
Disposed to Landfill	**176,428t**
As % of annual MSW	56%
Total	**307,239t**

Annual capacity of waste management facilities by waste type

Table 19: Capacity of NEW waste management facilities (2008-2009)	
Waste Facility Type	Capacity (m^3)
Landfill Inert	12500
Landfill hazardous	0
Landfill non-hazardous	0
Landfill gas generation plant	0
Open windrow composting	0
In-vessel composting	0
Anaerobic digestion	0
Sewage treatment works	6570
Other treatment	0
Material recovery recycle facilities	0
Recycle construction demolition	0
Mechanical biological or thermal	0
Pyrolysis gasification	0
Metal recycling site	0
Transfer station	0
Storage of waste	0
Household civic amenity sites	0
Energy waste incineration	0
Other incineration	0
Other waste management	0
Other development	0
TOTAL CAPACITY	**19070**

Local Output Indicator

Table 20: Gloucestershire Municipal Waste Arisings 2008/09 Based on Local Authority input into WasteDataFlow – on DEFRA website published 5th November 2009	
Regular Household Collection	149,830 tonnes
Civic Amenity Sites	17,222 tonnes
Household Recycling	121,099 tonnes
Total Household Waste* *This figure may not match the sum of the above due to rejected recycling tonnages which are instead added to the residual stream	288,150 tonnes
Non-Household Residual (excl. Recycling)	9,079 tonnes
Non-Household Recycling	9,709 tonnes
Total	306, 938 tonnes
Gloucestershire Residual Household Waste per Household (kg/household)	632.26 kg per household
Gloucestershire Percentage of Household Waste Sent for Reuse, Recycling or Composting	42.01 %
Gloucestershire Percentage of Municipal Waste Sent To Landfill	57.35 %
Gloucestershire Collected Household Waste	495 kg per person

Municipal

Table 21: Estimated Current MSW Capacity Source: Technical Evidence Paper WCS-A Data (January 2008) Note: an update of these capacity figures is underway and is due to be published in the Spring of 2010. Thus the following figures are the most up-to-date at the time of publishing this AMR, but the WPA are already aware through preliminary work that there is additional capacity to be factored in. [tpa = tonnes per annum]	
Windrow composting	69,000 tpa
In-vessel composting	108,000 tpa
Household Recycling Centres (HRCs)	81,000 tpa
Residual treatment	0 tpa
Transfer	107,000 tpa
Landfill	Hempsted and Wingmoor West = c. 5 million m^3 landfill remaining voidspace

Table 22: Estimated MSW Capacity Requirements for Gloucestershire by 2020 Source: Technical Evidence Paper WCS-A Data (January 2008) Note: an update of these capacity requirements is underway and is due to be published in the Spring of 2010. Thus the following capacity figures are the most up-to-date at the time of publishing this AMR [tpa = tonnes per annum]	
Windrow composting	18,000 tpa
In-vessel composting	71,000 tpa
Recycling (source separated and through District schemes)	149,000 tpa
Residual treatment	A range of 150,000 to 270,000 tpa
Transfer	71,000 tpa
Landfill	3.1 million m³ landfill capacity (over the period 2006/07 – 2020/21

C&I

Table 23: Estimated C&I Capacity Requirements for Gloucestershire by 2020 The following is from Technical Evidence Paper WCS-A Data (January 2008) Note: an update of these capacity requirements is underway and is due to be published in the Spring of 2010. Thus the following capacity figures are the most up-to-date at the time of publishing this AMR [tpa = tonnes per annum]	
Current Capacity (2007)	**2020 RSS Requirement**
Composting = 58,000 tpa	A range of 300,000 – 320,000 tonnes
General Recycling / Reuse = 161,000 tpa	
Metal Recycling = 261,000 tpa	
Metal Transfer = 125,000 tpa	A range of 260,000 – 290,000 tonnes
General Transfer & Recovery = 160,000 tpa	
Note: See page 25 of Technical Evidence Paper WCS-A Data (January 2008) for an explanation of the fact that it is likely that the WPA will favour an approach of looking for an additional 145,000 tpa needing to be diverted from landfill by 2020. This is an approach that looks to meeting national targets for the reduction of C&I waste to landfill	

C&D

Table 24: Indicative Licensed C&D Waste Management Capacity (2007) The following is from Technical Evidence Paper WCS-A Data (January 2008) Note: an update of these capacity requirements is underway and is due to be published in the Spring of 2010. Thus the following capacity figures are the most up-to-date at the time of publishing this AMR
Management (including transfer, treatment, screening, crushing & storage) = 520,000 tonnes
Disposal = 392,000 tonnes

Hazardous

Table 25: Total Hazardous waste Managed in Gloucestershire (2004) Note: There are currently no specific national or regional targets for Hazardous Waste. The following is from Technical Evidence Paper WCS-A Data (January 2008) Note: an update is underway and is due to be published in the Spring of 2010. Thus the following figures are the most up-to-date at the time of publishing this AMR
72,000 tonnes of which 39,000 tonnes arose in Gloucestershire

Landfill Capacity

Table 26: Landfill Capacity The following is from Technical Evidence Paper WCS-A Data (January 2008) Note: an update is underway and is due to be published in the Spring of 2010. Thus the following figures are the most up-to-date at the time of publishing this AMR	
Combined voidspace of non-hazardous landfill sites as of Feb 2007	c. 8,985,000 m^3
Hazardous waste landfill voidspace as of Feb 2007	Between 2.8 and 3.6 m^3
Note: for both of the above figures, it should be noted that the Wingmoor Farm East site operated by Grundon waste Management has a time limited planning permission to 2009, and the application to extend has been submitted to the WPA, but not yet determined	

Targets

247. The following targets have been brought forward from the previous AMR and have arisen from a combination of waste data study work undertaken for the Waste Core Strategy *Preferred Options* stage (*Waste Core Strategy Technical Evidence Paper WCS-A Waste Data)* and figures highlighted in *The Regional Waste Strategy for the South West 2004-2020* (RWMS).

248. Additional information related to the handling of MSW waste and LATs targets can be found in the *Joint Municipal Waste Management Strategy 2007-2010* [available from *http://www.recycleforgloucestershire.com/joint_strategy/]*.

To secure Gloucestershire's LATS targets up to the annual period 2020/2021, minimum provisional waste management capacity must be in place for the following to treat MSW waste.–

- 18,000t of windrow*;
- 71,000t of in-vessel composting*;
- 149,000t of recycling;
- 150,000 – 270,000t of residual treatment;
- 71,000t transfer; and
- 3.1million m^3 of landfill capacity.

** It is important to consider these minimum capacity targets together in that the development of In-vessel composting will lead to the diversion of compostable waste away from more traditional windrow techniques. For more information on this matter, please refer to the Waste Core Strategy Technical Evidence Paper WCS-A Waste Data.*

To ensure the provisional capacity for recycling, reusing and / or recovering 83% of all managed commercial and industrial waste in Gloucestershire by 2020 – *in accordance with RWMS policies p.74-75.*

To ensure the provisional capacity for recycling, reusing and / or recovering 180,000 tonnes per annum of all managed inert construction and demolition waste in Gloucestershire by 2020 – *in accordance with RWMS appendix C table.*

Discussion and Commentary

249. Only two applications for new waste facilities were permitted throughout the monitoring period. This provided an extra 19070m³ of capacity. This data has been collated for a new core indicator; therefore we will not be able to make comparisons until the next years AMR.

250. During the monitoring period the total amount of MSW managed decreased by 15, 557 tonnes compared to the previous monitoring period. Alongside this the proportion of MSW that was composted or recycled (including inert and reuse) increased and the remaining sent to landfill decreased. This shows a positive progression towards the diversion of waste away from landfill.

251. One key factor in the data included above is the increase in the amount of composting (windrow and in vessel). This has already met the LATS targets.

252. As a consequence, this AMR seeks to signpost the Waste Core Strategy Technical Evidence Paper WCS-A *Waste Data* for a more in-depth review of the consequences for future waste policy as a result of existing capacity and projected managed wastes. It is anticipated that future updates of this evidence paper will be able to inform subsequent AMRs.

Link to Minerals & Waste Local Plans

253. The most relevant Minerals Local Plan (MLP) policies, which cover AMR Objective 14, are SE1 and SE2 that focus on safeguarding and the efficient use of resources.

254. In terms of the Waste Local Plan (WLP), Policy 36 for waste minimisation; 4, 5, 6, 7 covering site allocation matters; and 8 through to 22 regarding waste management facilities types are most applicable in relation to AMR objective 14.

AMR Objective 15: "To reduce contributions to and to adapt to Climate Change."

255. Reducing climate change impacts represents a relatively new spatial challenge, although in part, much of its delivery is already covered under the umbrella of *'sustainable development'*.

256. In the context of minerals and waste planning, seeking to reduce climate change impacts can be observed through policy commitments to reduce green house gas emissions by improving efficiency in processing, reducing transportation, and diverting waste away from landfill. Many of these aspects have already been looked at in detail within this report under a number of other AMR objectives.

257. Nevertheless, while landfill still remains a major part of the county's waste management system, a number of short-term measures can be looked at to support climate change reductions. The most significant of these is the application of landfill gas as a potential energy source, which uncontrolled can produce significant amounts of greenhouse gas *(i.e. methane)*.

258. The collecting of methane gas as a form of energy is also classified as a renewable process. This offers a further positive in terms of reducing climate change impacts as it can contribute towards reducing our dependence on fossil fuels.

259. For the purposes of the AMR, monitoring of AMR Objective 15 is focused upon the capture and usage of landfill gas in energy production.

Core Output Indicator

260. There are no core output indicators for this AMR objective.

Local Output Indicator

Energy capacity in mega watts from landfill and the % this represents of total renewable energy capacity from Gloucestershire.

261. As at the end of the monitoring period at March 2009, capacity for 10.24 Mega Watts of renewable energy was present in Gloucestershire. A total of 8.25MW of capacity was derived from landfill sources and 1.21MW from sewage gas. This equates to almost 92% of the county's renewable energy capacity.

Targets

262. There were no targets set for this AMR objective.

Discussion and Commentary

263. The production of landfill gas is dependent upon a replenishing supply of biodegradable waste that is disposed of to landfill. However, evolving waste policy actively seeks to reduce the volume of biodegradable waste sent to landfill, which in turn, should reduce the amount of gases being generated.

264. Whilst following the *'waste agenda'* of landfill reduction appears to result in reduction in one of the current sources of renewable energy – landfill gas, the wider sustainability gains should be

borne in mind. The sole aim of reducing waste to landfill is to ensure that it is utilised more as a direct resource and that its production is ultimately minimised. Future opportunities may arise to replace the renewable energy generated by landfill gas with renewable energy generated from other waste technologies including anaerobic digestion which is already been used in a number of sewage treatment facilities in Gloucestershire.

Link to Minerals & Waste Local Plans

265. The most appropriate Minerals Local Plan (MLP) policies associated with AMR objective 15 are – E19, E20 and E21 covering transport.

266. For the Waste Local Plan (WLP), Policies 39 and 40 for transport; and those relating to sustainable waste management *(4 to 22)* and waste reduction measures *(36)* are deemed most appropriate for AMR Objective 15.

Appendix A - Key Monitoring Stakeholders

The following organisations have been categorised as key monitoring stakeholders for the purposes of the AMR. A draft copy of the AMR was made available to each of these organisations for consultation during late 2007. Information that has been collected and / or will be collected in the future, is likely to be dependant upon continued close working and partnership between each of these organisations and Gloucestershire County Council : -

- Cheltenham Borough Council
- Cotswold District Council
- Environment Agency
- English Heritage
- Forest of Dean District Council
- Gloucester City Council
- Government Office for the South West (GOSW)
- Highways Agency
- Natural England
- South West Regional Assembly (SWRA)
- Stroud District Council
- Tewkesbury Borough Council
- Gloucestershire Waste Disposal Authority

Appendix B - Preferred Areas for Minerals and Waste from the MLP and WLP and MCA from the MLP

Minerals Local Plan Preferred Areas

1. Stowhill/Clearwell
2. Drybrook
3. Stowfield
4. Daglingworth
5. Huntsmans
6. Dryleaze Farm
7. Cerney Wick
8. Horcott/Lady Lamb Farm
9. Kempsford/Whelford

[14]Waste Local Plan Preferred Areas

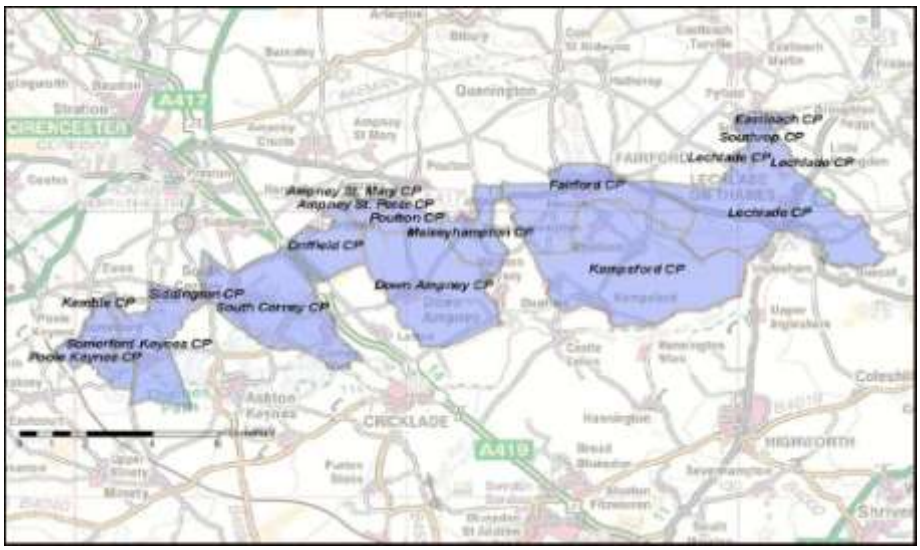
Strategic Sites

1. Wingmoor Farm West, Bishop's Cleeve
2. Wingmoor Farm East, Bishop's Cleeve
3. Sudmeadow, Hempsted
4. Ind. Estate, Former Moreton Valence Airfield
5. Sharpness Docks, Sharpness
6. Reclaimed Canal Land, Netheridge

Local Sites

7. Gloucester Business Park
8. Moreton-in-Marsh, Cotswolds
9. Phoenix House, Elmstone Hardwick
10. Land Rear of Dowty, Staverton
11. Railway Triangle Site, Gloucester
12. Land Adjacent to Sudmeadow, Hempsted
13. Forest Vale Industrial Estate, Cinderford
14. Canal Works, Lydney
15. Lydney Industrial Estate, Lydney
16. Wilderness Quarry, Mitcheldean
17. Wingmoor Farm South East, Bishop's Cleeve
18. Fosse Cross Industrial Estate, Calmsden
19. Old Airfield, Moreton Valence
20. Land Adj. To Gasworks, Gloucester
21. Netherhills Pit, Frampton-on-Severn

The Upper Thames Valley Mineral Consultation Area (MCA)



[1] *See footnote 13, Objective 2.*

Appendix C - Schedule of Policies Saved

GOVERNMENT OFFICE
FOR THE SOUTH WEST

SCHEDULE

POLICIES CONTAINED IN THE GLOUCESTERSHIRE WASTE LOCAL PLAN 2002-2012

Policy No.	Name
8	Anaerobic digestion
9	Composing
10	Household waste recycling centres
11	Waste Collection Facilities
12	Inert recovery and recycling
15	Waste to energy recovery
16	Special waste facilities
17	Mining of waste
19	Sewage and water treatment
22	Land-spreading
24	Locally designated sites for nature conservation
25	Nature Conservation outside designated sites
28	Sites of National Archaeological Importance
29	Sites of Local Archaeological Importance
31	Historic heritage
33	Water resources – pollution control
36	Waste minimisation
37	Proximity to other land uses
38	Hours of operation
39	Transport
40	Traffic
41	Public Rights of Way
42	Reinstatement
43	After use
45	Planning Obligations

DC2	Ancillary Mineral Development
DC3	Importation of Materials
DC4	Aerodrome Safeguarding

GOVERNMENT OFFICE
FOR THE SOUTH WEST

SCHEDULE

POLICIES CONTAINED IN GLOUCESTERSHIRE MINERALS LOCAL PLAN 1997 - 2006

Policy No.	Name
E2	Areas of Outstanding Natural Beauty
E4	Nationally important archaeological remains
E6	Registered historic parks/gardens and battlefields
E8	Regional and local designations
E9	Green Belt
E10	Biodiversity
E11	Water Environment - Pollution control
E13	Buffer zones for river corridors
E14	Impact on sensitive land-uses
E15	Settlement Protection Boundaries
E16	Social and Economic Well-being
E17	Public Rights of Way
E18	Opportunities for Access
E19	Transport Appraisal
E20	Highway suitability, site access and amenity
NE1	Building Stone
NE2	Clay
EM1	Open cast coal extraction
EM2	Underground Coal Extraction
EM3	Disposal of Colliery Spoil
EM4	Landscape impact of colliery spoil heaps
EM5	Re-working of colliery spoil heaps
R1	Restoration Scheme
R2	After-Use
R3	Progressive Restoration
R4	Reclamation of worked out mineral sites
DC1	Pollution Control
DC2	Ancillary Mineral Development
DC3	Importation of Materials
DC4	Aerodrome Safeguarding

DC5	Planning Obligations
DC6	Planning Obligations for Spine Road
DC7	Borrow Pits
A1	Aggregate Apportionment
A2	Land bank
A3	Working in preferred areas
A4	Working outside of preferred areas
A5	Crushed rock preferred areas (FoD)
A6	Crushed rock preferred areas (C'wolds)
A7	Sand and Gravel preferred areas
Ch. 10	Inset maps and proposals

Appendix D - Minerals and Waste Decisions during the Monitoring Period

Application Reference	District Ref	District	Site Location	Proposal	Decision Issued	Decision	Waste/ Mineral
08/0005/TWMAJW	08/00152/CM	Tewkesbury	Winchcombe Sewage Treatment Works Broadway Road Winchcombe	Walk-in kiosk to house electrical control gear for an odour control unit	16/04/08	Consent	Waste
07/0055/CWMINM	CT.1595/1/T	Cotswold	Claydon Pike Quarry Claydon Pike Lechlade GL7 3DT	Erection, in a revised location, of a concrete batching plant to replace existing	22/04/08	Consent	Mineral
07/0056/STMAJW	S.07/1847	Stroud	Sharpness Sewage Treatment Works Sanigar Lane Berkeley GL13 9NH	Change of use for new tankered waste imports, erection of motor control centre kiosk and sludge thickening kiosk, engineering and access road improvements	22/05/08	Consent	Waste
08/0011/FDMAJW	P0306/08/CPC	Forest of Dean	Unit 1 Hollyhill Wood Industrial Estate Valley Road Cinderford GL14 2PP	Change of Use to an asbestos Waste Transfer Station comprising two fully sealed asbestos skips	27/05/08	Consent	Waste
08/0017/STMAJW	S.08/1152/CM	Stroud	Sheepcots Farm Tinkley Lane Nympsfield Stonehouse GL10 3UH	To continue the development of agricultural improvement by infilling of depression without complying with conditions 2, 3, 12, 14 and 17 of Planning Permission S.07/1665/CM	19/06/08	Consent	Waste
08/0027/FDMAJM	P0563/08/CPC	Forest of Dean	Clearwell Quarry Stowe Green St Briavels Lydney GL15 6QJ	Variation of conditions 3 and 8 of planning permission DF.2238/1/A to allow the importation of high polished stone value ("PSV") aggregates for the production of coated roadstone products	23/06/08	Consent	Mineral
07/0061/GLMAJW	07/01139/DCC	Gloucester	Hempsted Landfill Site Hempsted Lane Gloucester	Transfer station for the temporary storage of biodegradable garden waste	30/06/08	Consent	Waste

Application Reference	District Ref	District	Site Location	Proposal	Decision Issued	Decision	Waste/ Mineral
08/0019/CWMAJW	08/01109/CPO	Cotswold	Agricultural Supply Co Ltd Welsh Way Sunhill GL7 5SY	Variation of condition 1: planning permission CT.2584/J. Continuation of green waste processing to form compost without complying with time limit for operations	28/07/08	Consent	Waste
08/0029/CWARM	08/01318/CPO	Cotswold	Farmington QuarryFarmington Natural StoneNorthleach RoadCheltenham GL54 3NZ	Replacement of the existing office/showroom with associated car parking and access - Reserved Matters	28/07/08	Consent	Mineral
07/0081/GLMAJW	07/01505/DCC	Gloucester	Allstone House Myers Road Gloucester GL1 3QD	Variation of condition 7 of planning permission 05/01126/FUL to allow the door on the east elevation to be used in association with the Waste Transfer Station	30/07/08	Consent	Waste
08/0020/TWMAJW	08/00597/CM	Tewkesbury	Overton Farm Main Road Maisemore Gloucester GL2 8HP	Recycling facility for inert waste with associated storage and ancillary development	31/07/08	Consent	Waste
08/0036/CWMAJM	08/01909/CPO	Cotswold	Land To The East Of Nayles Barn Cutsdean	Extraction of stone slates and ancillary development with progressive restoration to woodland and nature conservation	05/09/08	Consent	Mineral
08/0031/CWMAJM	08/02150/CPO	Cotswold	Dryleaze Farm Ashton Road Siddington Cirencester GL7 6DB	Development of land without complying with conditions 4 and 28 of planning permission CT/2150/F and the variation of these conditions to reduce the buffer zones between mineral extraction and the watercourses and to construct a water vole refuge on the re	10/10/08	Consent	Mineral
08/0044/TWMAJW	08/01425/CM	Tewkesbury	Land To The East Of 1 Ten Acre Cottages Lincoln Green Lane Tewkesbury	Construction of a Sewage Treatment Works and new access road from Lincoln Green Lane	27/10/08	Consent	Waste

Application Reference	District Ref	District	Site Location	Proposal	Decision Issued	Decision	Waste/ Mineral
08/0043/CWMAJW	08/02395/CPO	Cotswold	Waste Transfer Station Elliott Road Cirencester	Extension to the existing waste transfer station building	07/11/08	Consent	Waste
08/0052/FDMAJW	P1322/08/CPC	Forest of Dean	Land Adjoining Broadmoor House Broadmoor Road Cinderford GL14 3JA	Erection of new storage building with ancillary works	16/12/08	Consent	Waste
08/0053/FDMAJW	P1394/08/CPC	Forest of Dean	Sewage Pumping StationSwan HillAlvingtonLydney GL15 6AB	Erection of one new control kiosk (1.25m high x 1.2m wide x 0.4m deep)	18/12/08	Consent	Waste
08/0033/CWMAJM	08/02048/CPO	Cotswold	Claydon Pike Works Claydon Pike Lechlade GL7 3DT	Extraction of sand & gravel for use on adjacent construction site.	19/12/08	Consent	Mineral
08/0034/STMAJW	S.08/2344/CM	Stroud	Smiths Resource Recovery Centre The Old Airfield Moreton Valence GL2 7NY	Erection of Washing Plant	29/01/09	Consent	Waste
06/0044/STFUL	S.06/1479/LO	Stroud	Field North Of Brownshill House Brownshill Stroud GL6 8AS	Retrospective application for the deposition of inert waste on land at Brownshill House	03/02/09	Consent	Waste
06/0003/CWFUL	CT.2648/3/	Cotswold	Cerney Wick Farm Quarry Cerney Wick GL7 5QH	Variation of conditions 4 and 10 of planning permission CT.2648/3/A to enable dry working	05/02/09	Consent	Mineral
08/0067/CWMAJW	08/03618/CPO	Cotswold	The Garden Yard Foss Cross Industrial Estate Foss Cross Cirencester	Variation of Condition 17 (Hours of Working) of Planning Permission CT.6437/E	10/02/09	Consent	Waste

Application Reference	District Ref	District	Site Location	Proposal	Decision Issued	Decision	Waste/ Mineral
08/0051/CWMAJM	08/02846/CPO	Cotswold	Brockhill Quarry Naunton GL54 3BA	Restoration of Quarry (revised scheme)	16/02/09	Consent	Mineral
08/0070/STMAJW	S.09/0009/LA	Stroud	Bioganix Plc Former Plasmega Site Sharpness Docks Berkeley	Retrospective planning application for the regularisation of a minor amendment to the constructed building footprint to the rear of the in-vessel composting facility	19/03/09	Consent	Waste
08/0054/STMAJW	S.08/2500/CM	Stroud	Stroud & District Sewage Works Stanley DowntonStonehouse GL10 3QX	The erection of a new control kiosk measuring 8m x 3.7m x 3.5m high.	24/02/09	Consent	Waste
08/0001/FDMAJW	P0067/08/FUL	Forest of Dean	Land Adjacent To Bury Court Ledbury Road Redmarley GL19 3JY	Inert recycling facility, including landraising	05/03/09	Consent	Waste
06/0103/FDMRVW		Forest of Dean	Drybrook Quarry Drybrook	Periodic Review of Mineral Planning Permission APP/T1600/A/90/155527 dated 27 January 1992	20/03/09	Consent	Mineral
08/0008/TWMAJW	08/00373/FUL	Tewkesbury	Wingmoor Farm Landfill Stoke Orchard Road Bishops Cleeve Cheltenham	Temporary Transfer Station for garden and kitchen wastes for onward transit to composting/treatment facilities	30/05/08	Refusal	Waste
08/0013/TWMAJW	P0209/08/CPC	Forest of Dean	Land At Orchard Court Ruddle Newnham-on-Severn GL14 1DS	Alterations and extension to an existing building and use in association with the storage of animal carcasses allied to an established slaughterman's business (part retrospective)	06/08/08	Refusal	Waste
08/0038/CWCERT	08/01844/CPO	Cotswold	Land At Sandpit Bridge Stratford Road Moreton-In-Marsh	Certificate of Lawfulness of Existing Use for temporary storage of inert waste pending transfer to licensed waste sites. Sorting of waste (inert). Stockpiles of waste not exceeding 3 metres in height, stockpiled materials comprising inert builders	11/09/08	Refusal	Waste

Application Reference	District Ref	District	Site Location	Proposal	Decision Issued	Decision	Waste/ Mineral
				waste and scrap metals and not exceeding one motor car intended to be scrapped at any one time. The area covered by stockpiles and materials not exceeding 50 square metres at any time but areas vary from time to time. Materials stockpiled not exceeding 30 tonnes in weight at any time and materials stored in up to 5 skips in addition to stockpiled materials.			
08/0056/GLMAJW	08/01395/DCC	Gloucester	Brick House Sudmeadow Road Gloucester Hempsted GL2 5HS	Variation of condition 8 of planning permission 07/01274/COU (dated 25.01.08 for change of use of site from permitted skip storage use and repair/servicing and maintenance of motor vehicles to a waste transfer station) to allow a maximum of 50 skip vehicl	28/01/09	Refusal	Waste
07/0084/CWMAJW	08/00063/SCR	Cotswold	Adlestrop Hill Barns Adlestrop Moreton-In-Marsh GL56 0YN	Change of use of former agricultural buildings and yard to an inert waste recycling facility with associated storage	09/05/08	Withdrawn	Waste
08/0016/CWMAJM	08/01178/CPO	Cotswold	Land East Of Spratsgate Lane And Adjacent To Keynes Country ParkShorncote	Progressive extraction and processing of sand, gravel and stone with restoration using imported inert fill to a mix of wetland, grassland and recreational use, together with replacement visitor parking and access for the Keynes Country Park	19/12/08	Withdrawn	Mineral

Appendix E - Glossary and Acronyms

Listed below are a few frequently-used terms or acronyms within this document. A more detailed joint minerals and waste glossary has been prepared as part of the *Technical Evidence Library* for the *Core Strategies*. This evidence paper (*Joint Technical Evidence Paper WCS-MCS-8 Glossary & List of Acronyms and Abbreviations)* along with any others mentioned within this report can be downloaded from the following links:
http://www.gloucestershire.gov.uk/index.cfm?articleid=18017
http://www.gloucestershire.gov.uk/index.cfm?articleid=18014

AMR Annual Monitoring Report

AREA OF OUTSTANDING NATURAL BEAUTY (AONB) - A landscape area of high natural beauty, which has been designated under the National Parks and Access to the Countryside Act (1949). The primary purpose of an AONB is to conserve and enhance natural beauty.

BIOAEROSOLS - Airborne microorganisms.

BIODIVERSITY - Biodiversity is the variability among living organisms from all sources including inter alia, terrestrial, marine, and other aquatic ecosystems and ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems. Put simply it is every living thing we see around us in the natural world.

C&D Construction and demolition waste

C&I Commercial and industrial waste

CIVIC AMENITY SITE (CAs) – A facility where the public can dispose of household waste. They often also have recycling points. These sites are intended to reduce the incidence of fly tipping which is delivered by householders. See also **HOUSEHOLD RECYCLING CENTRES (HRC).**

CLG Department of Communities & Local Government

COMBINED HEAT AND POWER (CHP)- The combined production of heat (usually in the form of steam) and power (usually in the form of electricity). In waste-fired facilities, the heat would normally be used as hot water to serve a district-heating scheme.

COMBINED HEAT POWER SCHEME - a process whereby the heat from locally-centred electricity generation can be used to provide district heating. The process may utilise waste materials as a fuel source.

COMMERCIAL WASTE - Waste from premises used mainly for trade, business, sport, recreation or entertainment.

CONSTRUCTION AND DEMOLITION WASTE – Controlled waste arising from the construction, repair, maintenance and demolition of buildings and structures.

CONTAMINATED LAND – Land that has been polluted or harmed in some way making it unfit for safe development and usage unless cleaned.

CORE STRATEGY - Sets out the long-term spatial vision and strategy for the local planning authority area and provides the strategic locations, policies and proposals to deliver that vision and for future development opportunities.

CRUSHED ROCK – Generic term used to describe mechanically fragmented quarried rock which can then be graded for use as aggregate.

DEMOLITION WASTE - Masonry and rubble wastes arising from the demolition or reconstruction of buildings or other civil engineering structures.

DEPARTMENT FOR COMMUNITIES & LOCAL GOVERNMENT (CLG) - Government department with national responsibility for; housing, urban regeneration, local government, and planning. It Replaced ODPM in 2006.

DEPARTMENT FOR THE ENVIRONMENT FOOD & RURAL AFFAIRS (DEFRA) - Government department with national responsibility for sustainable waste management.

DEVELOPMENT CONTROL (DC) – Processing and decision- making in relation to planning applications together with enforcement of planning control under Town and Country Planning legislation.

DEVELOPMENT FRAMEWORK – A non-statutory term for describing the folder of documents, which includes all the local planning authority's local planning documents.

DEVELOPMENT PLAN – Sets out the policies and proposals for development and the use of land within the local planning authority area.

DEVELOPMENT PLAN DOCUMENT (DPDS) - These are spatial planning documents that are subject to independent examination. They will have 'development plan' status. See the definition of Minerals & Waste Development Plan Document below.

ENERGY FROM WASTE (EfW) - Includes a number of established and emerging technologies, though most energy recovery is through incineration technologies. Many wastes are combustible, with relatively high calorific values - this energy can be recovered through (for instance) incineration with electricity generation. Alternatively gas produced from waste can be burned and can be used for heating.

ENVIRONMENT AGENCY (EA) - Established in April 1996, combining the functions of former local waste regulation authorities, the National Rivers Authority and Her Majesty's Inspectorate of Pollution. Intended to promote a more integrated approach to waste management and consistency in waste regulation. The Agency also conducts national surveys of waste arising and waste facilities.

ENVIRONMENTAL IMPACT - The total effect of any operation on the surrounding environment.

EVIDENCE BASE – The information and data gathered by local authorities to justify the "soundness" of the policy approach set out in Local Development Plan documents, including physical, economic, and social characteristics of an area.

FLOOD PLAIN – Generally low-lying areas adjacent to a watercourse tidal lengths of a river or the sea, where water flows in times of flood or would flow but for the presence of flood defences.

GCC Gloucestershire County Council

GOVERNMENT OFFICE FOR THE SOUTH WEST (GOSW) - The Government's regional office. LPAs will use this office as a first point of contact for discussing the scope and content of Local Development Documents and procedural matters.

GREEN BELT - Areas of land defined in Regional Spatial Strategies, Structure Plans and district wide Local Plans that are rural in character and adjacent to urban areas, where permanent and strict planning controls apply in order to; check the unrestricted sprawl of built up areas; safeguard the surrounding countryside from further encroachment; prevent neighbouring towns from merging into one another; preserve the special character of historic towns and assist urban regeneration.

ha Hectares

HAZARDOUS WASTE - A waste that, by virtue of its composition, carries the risk of death, injury, or impairment of health, to humans or animals, the pollution of waters, or could have an unacceptable environmental impact if improperly handled, treated or disposed of. The term should not be used for waste that merely contains a hazardous material or materials. It should be used only to describe wastes that contain sufficient of these materials to render the waste as a whole hazardous within the definition given above.

HOUSEHOLD RECYCLING CENTRES (HRCs) - Sites to which the public can bring domestic waste, such as bottles, textiles, cans and paper for free disposal. HRCs may also accept bulky household waste and green waste. Where possible, the collected waste is recycled after sorting.

INERT WASTE - Waste which, when deposited into a waste disposal site, does not undergo any significant physical, chemical or biological transformations and which complies with the criteria set out in Annex 111 of the EC Directive on the Landfill of Waste. Types of materials include uncontaminated top soil; subsoil; clay; sand; brickwork; stone; silica and glass.

IN VESSEL COMPOSTING (IVC) – The composting of biodegradable material in a closed reactor where the composting process is accelerated by optimising air exchange, water content and temperature control.

JOINT MUNICIPAL WASTE MANAGEMENT STRATEGY (JMWMS) – The strategy sets out GCC's position, and the aims, objectives and future plans of the Gloucestershire Waste Partnership regarding waste management to 2020.

KEY WILDLIFE SITES (KWS) – Areas of local nature conservation value designated by the Gloucestershire wildlife trust.

LANDBANK - A stock of land with planning permissions for the winning and working of minerals. It is composed of the sum of all permitted reserves at active and inactive sites at a given point in time, and for a given area, but where development has yet to take place. Landbanks are commonly used for land, minerals, housing or any other use.

LANDFILL - The deposit of waste onto and into land in such a way that pollution or harm to the environment is prevented and, through restoration, to provide land which may be used for another purpose**.**

LANDFILL ALLOWANCE TRADING SCHEME (LATS) – A scheme devised by Government whereby disposal authorities have targets to divert biodegradable municipal waste from landfill to meet EU targets. The scheme can involve trading between English authorities and was implemented by the Waste and Emissions Trading Act 2003.

LANDFILL GAS - Gas generated by the breakdown of biodegradable waste under aerobic conditions within landfill sites. The gas consists primarily of methane and carbon dioxide. It is combustible and explosive in certain conditions.

LANDFILL TAX - A tax introduced in 1996 by HM Customs and Excise on waste deposited in licensed landfill sites, with the aim of encouraging more sustainable waste management methods and generating funds for local environmental projects. A revision to the landfill tax credit scheme in 2003 introduces the option of giving tax credits explicitly to biodiversity projects.

LISTED BUILDING - A building which is for the time-being included in a list compiled or approved by the Secretary of State under Section 1 of the Listed Buildings Act 1990; and for the purpose of this Act - a) any object or structure fixed to the building;
b) any object or structure within the curtilage of the building which, although not fixed to the building, forms part of the land and has done so since before July 1st 1948,shall be treated as part of the building.

LOCAL DEVELOPMENT FRAMEWORK (LDF) - Comprises a portfolio of local development documents that will provide the framework for delivering the spatial planning strategy for the area.

LOCAL DEVELOPMENT DOCUMENT (LDD) - A document that forms part of the Local Development Framework. Can either be a Development Plan Document or a Supplementary Planning Document.

LOCAL DEVELOPMENT SCHEME (LDS) - Sets out the programme for the preparation of the local development documents. Must be submitted to the Secretary of State for approval within six months of the commencement date of the Act regardless of where they are in terms of their current development plan.

LOCAL NATURE RESERVE (LNR) – Habitats of local significance, which contribute to both nature conservation and provide opportunities for the public to see, learn and enjoy wildlife. LNRs are designated by local authorities under Section 21 of the National Parks and Access to the Countryside Act 1949.

LPA Local Planning Authority

M&W Minerals and Waste

MATERIALS RECOVERY/RECYCLING FACILITY (MRF) - A site where recyclable waste, usually collected via kerbside collections or from Household Recycling Centres, is mechanically or manually separated, baled and stored prior to reprocessing.

MCS Minerals Core Strategy

MECHANICAL AND BIOLOGICAL TREATMENT (MBT) – MBT systems combine the mechanical sorting of materials for recycling and the biological treatment of the remaining waste that will have a high organic content. The bio treatment rapidly composts the waste in an enclosed facility. Anaerobic Digestion *(see above)* is part of the family of MBT technologies.

METHANE - (CH_4) A colourless, odourless, flammable gas, formed during the anaerobic decomposition of putrescible waste. It is the major constituent of landfill gas.

MINERAL CONSULTATION AREA (MCA) - An area identified in order to ensure consultation between the relevant minerals planning authority, local planning authority, the minerals industry and others before certain non-mineral planning applications made within the area are determined.

MINERAL DEVELOPMENT - Any activity related to the exploration for, or winning and working of, minerals, including tipping of spoil and ancillary operations such as the use of processing plants.

MINERALS & WASTE DEVELOPMENT PLAN DOCUMENT (M&WDPD) **-** Spatial minerals and waste related planning documents that are subject to independent examination. There will be a right for those making representations seeking change to be heard at an independent examination.

MINERALS & WASTE DEVELOPMENT SCHEME (M&WDS) - Sets out the programme for the preparation of the minerals and waste development documents. Must be submitted to the Secretary of State for approval within six months of the commencement date of the Act regardless of where they are in terms of their current development plan.

MINERALS & WASTE DEVELOPMENT FRAMEWORK (M&WDF) - Comprises a portfolio of minerals and waste development documents which will provide the framework for delivering the spatial minerals and waste planning strategy for the area.

MINERALS PLANNING AUTHORITY (MPA) - Any Local Authority with responsibility for planning control over mineral working. Outside Greater London, metropolitan areas and the Unitary Authorities, MPAs comprise County Councils and National Park authorities.

MINERAL PLANNING GUIDANCE NOTES (MPG) - Government policy statements exclusively for minerals that are material considerations in determining planning applications. MPGs provide practical information and advice about planning policies, best practice and the legislation relating to minerals planning in a simple and accessible form. The Department of the Environment will have regard to this guidance when dealing with development plans, appeals and planning applications and it is expected that local planning authorities will also have regard to it in the exercise of their planning functions, including the preparation of Structure and Local Plans. The contents of individual MPGs range from general planning and procedure guidance to advice on specific issues and proposals.

MINERAL POLICY STATEMENT (MPS) -Guidance documents which set out national mineral planning policy. They are being reviewed and updated and are replacing MPGs.

MLP Minerals Local Plan

MUNICIPAL SOLID WASTE (MSW)- Waste that is collected and disposed of by, or on behalf of, a local authority. It will generally consist of household waste, some commercial waste and waste taken to civic amenity waste collection/disposal sites by the general public. In addition, it may include road and pavement sweepings, gully emptying wastes, and some construction and demolition waste arising from local authority activities.

NATIONAL NATURE RESERVE (NNR) - Areas of national and some international nature conservation importance, managed primarily to safeguard such interest in accordance with English Nature's requirements. NNRs are designated under section 19 of the National Parks and Access to the Countryside Act 1949 or section 35 of the Wildlife and Countryside Act 1981.

PLANNING POLICY GUIDANCE NOTES (PPG) – Government policy statements on a variety of issues that are material considerations in determining planning applications.

PLANNING POLICY STATEMENT (PPS) - Guidance documents which set out national planning policy. They are being reviewed and updated and are replacing PPGs.

PREFERRED AREAS – (1) Area containing mineral resources, which can be identified with a high degree of certainty and where the principle of extraction has been established. These areas must be subject to extensive consultation before they are formally delineated. (2) Area within which waste management uses may be suitable in principle, subject to extensive consultation.

PROPOSALS MAP – A component of a Local Development Framework and an important part of the development plan, or a DPD itself. It illustrates the policies and proposals in the development plan documents and any saved policies that are included in the Local Development Framework and displays them on an Ordnance Survey base map.

PUBLIC RIGHTS OF WAY (PROW) - A path, road, track, bridleway or highway over which the public has the right to pass and re-pass.

RAMSAR SITE - An internationally designated area listed under the European Convention of Wetlands due to its importance for waterfowl habitats.

RECYCLED AGGREGATES - Aggregates produced from recycled construction waste such as crushed concrete, road planing's etc.

REGIONAL GUIDELINES – The regional breakdown of national supply for aggregate minerals. The current national guidelines are from 2001 to 2016.

REGIONAL AGGREGATE WORKING PARTY (RAWP) – A working group consisting of local authority officers, representatives of the aggregates industry and central government established to consider the supply and demand for aggregate minerals. It supports and advises on aggregate mineral options and strategies for the region. Also assists in the local apportionment exercise for the regional guidelines for aggregate provision.

REGIONALLY IMPORTANT GEOLOGICAL SITE (RIG) - A non-statutory regionally important geological or geo-morphological site (basically relating to rocks, the Earth's structure and landform).

REGIONAL SPATIAL STRATEGY (RSS) – The 20-year spatial strategy for the South West region. This document is being prepared by the SWRA and will replace the Regional Planning Guidance for the South West. It will have statutory development plan status. Its main purpose is to provide a long-term land use and transport planning framework for the Region (South West).

SCHEDULED ANCIENT MONUMENTS (SAM) – Sites and remains designated under the Ancient Monuments and Archaeological Areas Act 1979 to ensure protection from development.

SECONDARY AGGREGATES - Aggregates derived from by-products of the extractive industry, e.g. china clay waste, colliery spoil, blast furnace slag, pulverised fuel ash.

SITE OF SPECIAL SCIENTIFIC INTEREST (SSSI) – A site statutorily protected for its nature conservation , geological or scientific value. Designated by English Nature under the provision of the Wildlife and Countryside Act 1981 to protect flora, fauna, and geological or physiographical features. All sites of national or international nature conservation interest are notified as SSSIs.

SITES & MONUMENTS RECORD (SMR) – Information on archaeological sites and other features of the historic environment is held in the County Sites and Monuments Record, Environment Department Gloucestershire County Council. The SMR should be consulted at an early stage during the preparation of development proposals in order to obtain up to date information on archaeological constraints, and a preliminary indication as to whether archaeological evaluation of the site will be necessary.

SoS Secretary of State

SOUTH WEST REGIONAL ASSEMBLY (SWRA) - Body responsible for regional planning and mineral strategy matters in the South West.

SOUTH WEST REGIONAL AGGREGATE WORKING PARTY (SWRAWP) - One of ten Regional Aggregates Working Parties [RAWPs] in England and Wales that provide advice to the Secretary of State in relation to the supply of, and demand for, aggregate minerals. They were established in the early 1970s to identify and consider likely problems in the supply of aggregate minerals. Each RAWP is chaired by a County Planning Officer or the equivalent, and draws members from the MPAs, the aggregates industry [by representation from the trade federation, Quarry Products Association], and the Department of the Environment/Welsh Office, along with the Department's regional offices, other Government bodies, e.g. MAFF, and other appropriate interested parties [MPG6].

SOUTH WEST REGIONAL SPATIAL STRATEGY - See **REGIONAL SPATIAL STRATEGY (RSS)**

SPD Supplementary Planning Document

SPECIAL AREAS OF CONSERVATION (SAC) - Designation made under the Habitats Directive to ensure the restoration or maintenance of certain natural habitats and species some of which may be listed as 'priority' for protection at a favourable conservation status.

SPECIAL LANDSCAPE AREAS (SLA) – An Area recognised as being of county level landscape importance. A non-statutory landscape designation, SLAs frequently border AONBs, protecting the landscape settings of these statutorily designated areas.

SPECIAL PROTECTION AREA (SPA) - Designations made under the EC Directive 79/409 on bird conservation (The Birds Directive), the aim of which is to conserve the best examples of the habitats of certain threatened species of bird, the most important of which are included as priority species.

SPG Supplementary Planning Guidance

STERILISATION – When development or land use changes prevent possible mineral exploitation in the foreseeable future.

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) - LPAs must comply with EU Directive 2001/42/EC which requires a high level, strategic assessment of local development documents (DPDs and, where appropriate SPDs) and other programmes (e.g. Local Transport Plan and JMWMS) that are likely to have significant effects on the environment.

STATEMENT OF COMMUNITY INVOLVEMENT (SCI) - The County Council must produce a local development document, which sets out how and when the community can get involved in the preparation of DPDs. It should also set out the LPA's vision and strategy for community involvement, how this links to other initiatives such as

the community strategy, and how the results will feed into DPD preparation. The SCI will be subject to independent examination.

SUPPLEMENTARY PLANNING DOCUMENT (SPD) - Policy guidance to supplement the policies and proposals in development plan documents. They will not form part of the development plan or be subject to independent examination. (Formally known as Supplementary Planning Guidance)

SUSTAINABILITY APPRAISAL (SA) - LPAs are bound by legislation to appraise the degree to which their plans and policies contribute to the achievement of sustainable development. The process of SA is similar to SEA but is broader in context, examining the effects of plans and policies on a range of social, economic and environmental factors. To comply with Government policy, GCC is producing a Sustainability Appraisal that incorporates a SEA Assessment of its M&W Local Development Documents.

TRANSFER STATION - A depot where waste from collection vehicles is stored temporarily prior to carriage in bulk to a treatment or disposal site.

WASTE COLLECTION AUTHORITY (WCA) - Authority responsible for the collection of household waste and preparation of Waste Recycling Plans. (District Councils).

WASTE DISPOSAL AUTHORITY (WDA) - Authority responsible for the disposal of WCA collected waste, and the disposal of waste delivered to Civic Amenity Sites. (County Council).

WASTE HIERARCHY - Suggests that: the most effective environmental solution may often be to reduce the amount of waste generated – reduction. Where further reduction is not practicable, products and materials can sometimes be used again, either for the same or a different purpose – re-use. Failing that, value should be recovered from waste, through recycling, composting or energy recovery from waste. Only if none of the above offer an appropriate solution should waste be disposed.

WASTE MINIMISATION – The process of reducing the quantity of waste arising and requiring processing and/or disposal. Reducing the volume of waste that is produced at source is at the top of the **WASTE HIERARCHY**.

WASTE PLANNING AUTHORITY (WPA) – Authority responsible for the implementation of the provisions of the Town and Country Planning Act 1990 in respect of waste planning.

WCS Waste Core Strategy

WLP Waste Local Plan

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