Gloucestershire Waste Local Plan 2002-2012

Adopted October 2004

GLOUCESTERSHIRE WASTE LOCAL PLAN 2002 - 2012

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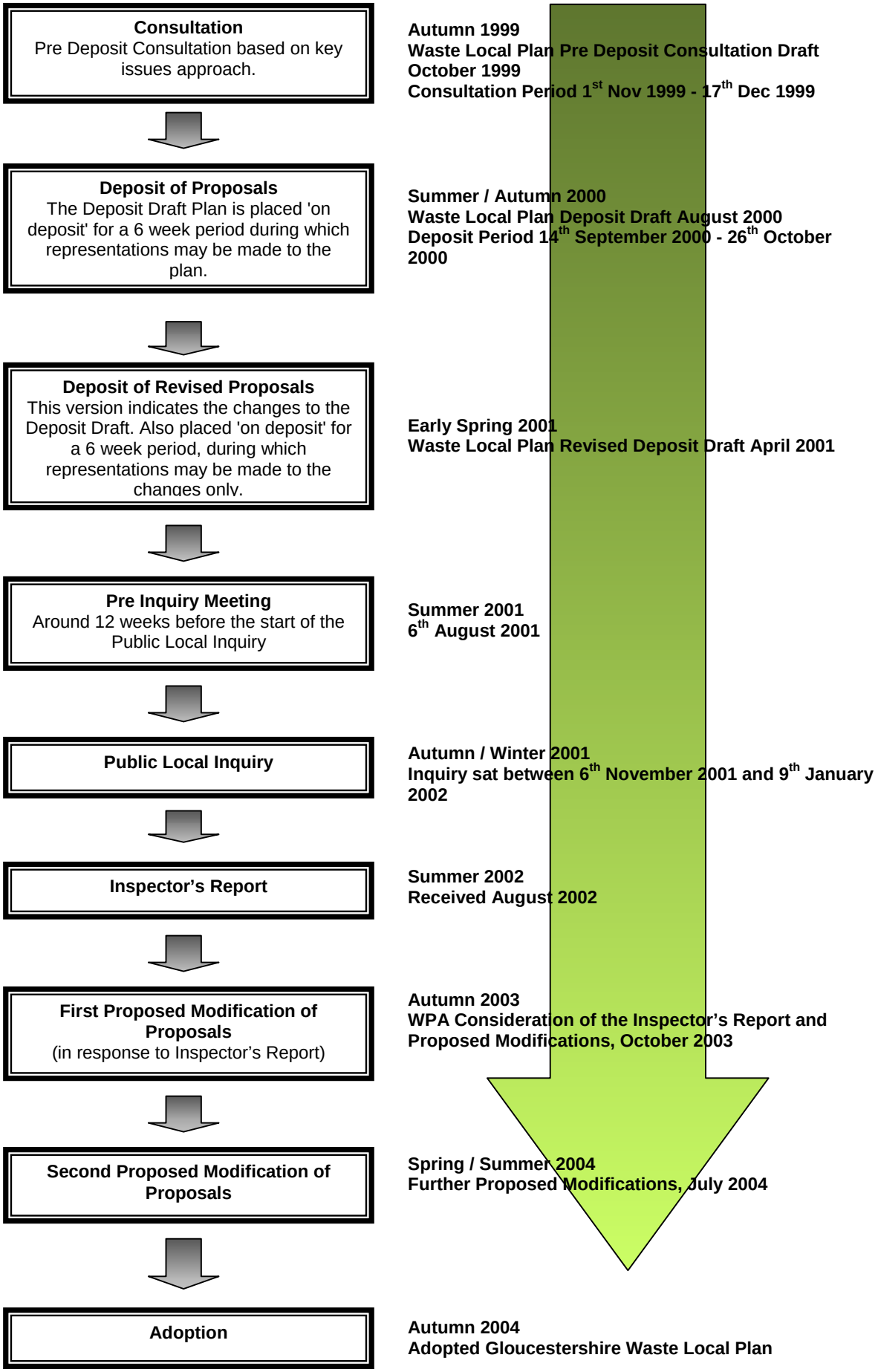
TIMETABLE AND ADOPTION PROCESS FOR THE GLOUCESTERSHIRE WASTE LOCAL PLAN

Town & Country Planning [Development Plan] Regulations 1999



FOREWORD

There are over half a million waste managers in Gloucestershire. This equals the population of the County. We all generate and manage waste. But the majority of our waste produced at home and at work is disposed of in landfill or landraising sites that form quite literally a mountain of waste. A small proportion is recycled, composted and recovered. More of our waste must be considered as a resource rather than a problem. We cannot continue to dispose of our waste to landraising sites because it is unsustainable. It is a missed opportunity to reclaim resources and energy and results in environmental, social and economic costs.

The Waste Local Plan is a statutory Local Plan, which is required to cover all land use planning aspects of waste management in the County for the next ten years with a review after five years.

This is the first Waste Local Plan produced for Gloucestershire. This County, like many others, acknowledges that it has been necessary to progress quickly to reach a point where, based on all the information available, the Plan is capable of guidance to the public, the waste industry and future development.

The Plan has been produced at a time when waste technology is changing rapidly and when the data on waste is incomplete and needs to be improved. Guidance and information on the subject of waste from both national government and the European Union is also progressively emerging, though the full environmental, social or economic costs of waste management are not entirely clear. Nevertheless, it is important that the Waste Local Plan is produced using the best information available.

The aim of the Plan has therefore been very clearly defined to guide policy and site identification. This will allow the development of a waste management industry in the County, which promotes the concept of sustainability and facilitates achievement of the national government's targets for the direction of waste away from landfill towards recycling/recovery. To do this the County Council has quite deliberately framed the Plan in such a way as to be non-exclusive in terms of the means of achieving national government targets.

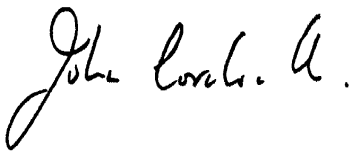
The Plan clearly allows for different technologies to be used in the management of waste provided they meet the aim of sustainable waste management. This stems from the belief that no one type of waste management facility will resolve all of Gloucestershire's waste problems. Some re-use, some composting, some recycling, some incineration, and some landfilling already occurs side by side in the County. The waste generated within the County varies from inert soils to clinical wastes and they can all vary in terms of their requirements for treatment methodologies.

The Plan does not mean to exclude the possibility of industry bringing forward other sites or methodologies, which can then be assessed to see if they achieve the principles of sustainability, whilst not giving rise to excessive cost for the Gloucestershire community or compromising the amenity of the County. Indeed, whilst the Plan is generated to provide an overall strategy, local solutions to local problems are encouraged where they can provide a more sustainable option.

By keeping this Plan flexible it is expected to be able, at least up until the five years' review, to stay relevant to changing circumstances in waste streams and to the changing economics of the situation with increases in Landfill Tax and fluctuations in returns on recycled materials.

It should also be clear that nothing in this Plan is intended to preclude innovative solutions, if they clearly demonstrate both sustainability and realism. We are also aware of the impact waste handling has on the County's highways infrastructure and the traffic reduction targets we have set ourselves. Nothing in this Plan should be read to imply a slackening of those targets.

Signed by



Dr. John Cordwell
Portfolio Holder – Strategic Planning and Transport

THE VISION STATEMENT

Gloucestershire's vision for the period 2002 – 2012 through the Waste Local Plan is to:

- ***minimise, whenever possible, waste generation;***
- ***treat waste arisings as a valuable resource;***
- ***maximise, the potential for waste to bring benefit to the community through re-use, recycling and recovery; and***
- ***reduce the loss of amenities to Gloucestershire caused by waste management development, especially via the transportation of waste by road.***

These are to be implemented in accordance with the social, economic and environmental principles of Best Practicable Environmental Option.

In Gloucestershire we want to look at every waste stream as a resource. As a resource it costs us and, if we throw it away it will cost us even more and give nothing in return. To be efficient we need to firstly find ways of wasting less of our resource. That is, we need to minimise the amount of waste we produce in the first place. The County Council and District Councils encourage everyone to reduce the waste they create or, more importantly, reduce seeking to just discard it. Currently the Local Authorities, the Environment Agency and Environmental Groups are working with the business community to make the best use of the waste we produce.

For Gloucestershire, the County Council would like the concept of waste being "throwaway" to change to one where waste is considered to be a potentially valuable resource. Waste, can only be a resource when we have decided it is valuable to reprocess, recycle or re-use it. Everything we use to keep our society the way it is either grows on the earth or is taken from it. By landfilling potential composting material we throw away nutrients and replace them with chemical fertilisers or with peats, for example, which must be dug from the ground. Every piece of non-organic matter we throw away has had to be dug from the ground and processed with environmental consequences. If we just throw it away, those environmental consequences must be repeated to replace it. Landfilling can be a beneficial use of waste only in limited circumstances.

The re-use of materials in the home and business makes economic sense to the individual and the community. However, where the process of re-use or recycling is too big a task for an individual, the County Council will seek, through the policies of the Waste Local Plan to encourage a framework where all waste is investigated for alternative beneficial uses as close to where they arise as possible, in the most environmentally friendly and economic method possible. With this in mind the Waste Local Plan will encourage operators in the waste industry to look at the waste through Best Practicable Environmental Option (BPEO). The concept of BPEO is, simply put, that you should consider all the options for a final use for your waste and you should try to estimate which will have the least costs overall, financially, socially and to the environment. For example, it would probably not be the BPEO to transport a few kilograms of paper from a rural part of the county to a recycling centre in Gloucester, because the cost to the environment from the car's exhaust fumes would be far greater than simply burning the paper where it was. Part of the BPEO answer then would be to have collection points close enough so that everyone's paper could be bulked and transported in one go.

The Waste Local Plan must, however, be realistic in its vision. As a community we cannot move from a situation where we dispose of the majority of our waste to landfill, to a situation where we produce no waste within the 10-year period of this Plan. How fast we move forward depends on every individual in our community, and depends on investment and vision by the waste industry to accompany the vision of the County Council. All parties must begin to realise that what was waste yesterday, is a resource today and tomorrow.

New legislation and regulations from the European and Westminster parliaments will make it imperative that we move in this direction. We should welcome the changes as they lead to a cleaner environment, generate new industry, economic growth and stimulate new solutions.

The Waste Management Strategy (1997), the Municipal Waste Management Strategy (2002), and this, the Waste Local Plan, are important first steps in Gloucestershire. The Plan has been written recognising that there is a long way to go and much still to be learnt and it will be reviewed in 5 years time. The Plan has deliberately not chosen to identify only one route towards the ideal because to do so would preclude cheaper and more environmentally friendly alternatives, which may come forward in the future. The Plan does not however, avoid the difficult questions associated with waste as a resource. It addresses the possibility that new waste to energy incineration plants meeting modern regulatory standards may be the most cost effective and least environmentally damaging option for Gloucestershire in certain circumstances compared to other methods of disposal. Such incineration plants would run on all the materials, which cannot be recycled. They would provide cheap heating to adjacent premises, contribute power to the national grid, re-use most resulting ash to make building materials and could be served by sustainable transport links, such as canal or rail, rather than road.

Industry, commerce and developers all need to think of waste as part of their first steps towards the future. Gloucestershire as a whole has choices it can make now, that will affect its long-term future. There may be a time when we no longer have those choices. These choices will impact on us all financially, socially and environmentally. There are many different views on the future of waste management in the County and it is intended that this document will help crystallise the debate. Above all we should remind ourselves that doing what we did yesterday and leaving things as they are now, is not an option.

If this vision is to move forward it needs to be endorsed as the vision, not of just the County Council but of the community of Gloucestershire. Dealing effectively with the County's waste in a sustainable manner requires the support and involvement of everyone. It is our collective problem to resolve, we will work together to overcome the present challenges and those of the future.

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ABBREVIATIONS

Abbreviations Commonly Used in the Waste Industry

BATNEEC	Best Available Technique Not Entailing Excessive Cost
BPEO	Best Practical Environmental Option
CATNIP	Cheapest Available Technique Not Involving Prosecution
DETR	Department of Environment, Transport and Regions
DoE	Department of Environment
EA, The	Environment Agency
EIA	Environmental Impact Assessment
EN	English Nature
EPA	Environmental Protection Act
GCC	Gloucestershire County Council
GOSWR	Government Office for the South West Region
ha	Hectares
Kg	Kilogram
m^2	Square metre
m^3	Cubic metre
MAFF	Ministry of Agriculture, Fisheries and Food
MBT	Mechanical Biological Treatment
Mcm Mm^3	Million cubic metres
MLP	Minerals Local Plan
MRF	Material Recovery Facilities
Mt	Million tonnes
NERI	Non Energy Recovery Incineration
PPG	Planning Policy Guidance
RTABs	Regional Technical Advisory Bodies
t	Tonnes
tt	Thousand tonnes
WCA	Waste Collection Authority
WDA	Waste Disposal Authority
WLP	Waste Local Plan (TCPA section 38,1990)
WPA	Waste Planning Authority
WRA	Waste Regulation Authority (Now EA)
WRP	Waste Recycling Plan (EPA section 49, 1990)
WTER	Waste To Energy Recovery
WTS	Waste Transfer Station

EXECUTIVE SUMMARY

GLOUCESTERSHIRE'S WASTE

There are over half a million waste managers in Gloucestershire. This equals the population of the County. We all generate and manage waste. But the majority of our waste produced at home and at work is disposed of in landfill or landraising sites that form quite literally a mountain of waste. A small proportion is recycled, composted and recovered. More of our waste must be considered as a resource rather than a problem. We cannot continue to dispose of our waste to landraising sites because it is unsustainable. It is a missed opportunity to reclaim resources and energy and results in environmental, social and economic costs.

The best way of reducing the impact of waste management in Gloucestershire would be to not produce the waste in the first place. Therefore, the primary objective for authorities, industry, commerce and the public in Gloucestershire must be to minimise the amount of waste they produce. We then need to make the best use of the waste that is produced and recycle and compost as much as we can before recovering energy from waste and finally disposing of it safely.

GLOUCESTERSHIRE'S WASTE LOCAL PLAN

In order to increase the value that we can recover from waste there needs to be further development of waste management facilities. In the County we have several hundred waste management sites which deal with many types of waste such as household, industrial, commercial, construction and demolition, special, hazardous and sewage wastes. But to recycle, compost and recover energy from the majority of our waste, we need the waste industry to develop more facilities.

Planning permission is required before waste facilities can be developed. In order to ensure that development occurs in suitable locations and to protect sensitive areas from inappropriate development, planning decisions will be made by the County Council, as Waste Planning Authority, in accordance with the policies and proposals contained in the Waste Local Plan. The Gloucestershire Waste Local Plan will help to guide the land use planning aspects of managing our waste for the next 10 years. It is a statutory requirement of the Town and Country Planning Act 1990 (as amended) for County Councils to produce a Waste Local Plan for their area.

TOWARDS SUSTAINABLE WASTE MANAGEMENT IN GLOUCESTERSHIRE

The aim of the Waste Local Plan is to implement the concept of sustainable, integrated waste management in Gloucestershire. This involves maximising the recycling, composting and recovery of energy from waste. The Waste Local Plan makes provision, through policies and site identification, for waste management facilities that can increase the recovery of waste and therefore minimise waste disposal. The Plan has 12 key objectives, which translate the aim of the Plan into specific points.

No.	Key Objective
1	To reduce the amount of waste produced in Gloucestershire.
2	To make the best use of the waste produced within Gloucestershire through increased re-use and recovery.
3	To encourage sensitive waste management practices within Gloucestershire in order to preserve or enhance the overall quality of the environment and avoid risks to human health.
4	To achieve a more sustainable waste management system by using the Best Practicable Environmental Option methodology in decision making, and taking into account the guiding principles of the Waste Hierarchy, Proximity Principle and Regional Self Sufficiency.
5	To assist in creating economic prosperity and employment for Gloucestershire by encouraging competitiveness, meeting the needs of business, and in considering what new waste management enterprises will be required.
6	To ensure that waste management issues are properly considered and opportunities are incorporated into new development proposals.
7	To minimise adverse environmental impacts resulting from the handling, processing, transport and disposal of waste.
8	To protect public amenity from the adverse impact of waste management and have regard to the need to protect areas of designated landscape and nature conservation value from inappropriate development.

9	To make the most efficient use of land by re-using appropriate brownfield land, industrial land and existing waste management sites in preference to undesignated green field sites.
10	To minimise the environmental impacts of transporting waste by applying the proximity principle, and encouraging more sustainable means of transport for the re-use, recovery and disposal of waste.
11	To provide clear guidance on the locational criteria that must be met before planning permission can be granted, and set out policies on planning conditions, planning obligations, monitoring and enforcement.
12	To safeguard sites suitable for the location of waste management facilities from other proposed development.

The Strategy of the Plan sets out how the key objectives and aim will be achieved. It consists of two parts:

1. The Guiding Principles - these principles establish the idea of sustainable waste development. They demonstrate what is considered important and why. The principles are Best Practicable Environment Option, the Proximity Principle, Regional Self Sufficiency and the Waste Hierarchy.

2. The Geographic Statement - this brings the key objectives into a land use context. It takes into account the Guiding Principles and explains how they will be applied in land use terms.

The Waste Local Plan identifies a need for a small number of appropriately located larger scale waste management facilities with capacity in excess of 50,000 tonnes per year that are strategic to the County and a network of smaller facilities (less than 50,000 tonnes per year) that will be more local in nature. The designation of any waste facilities to serve our region awaits receipt of the regional waste management strategy. The South West Regional Assembly are co-ordinating the production of the regional waste management strategy, with input from the Regional Technical Advisory Body.

LOCATING WASTE MANAGEMENT FACILITIES

A range of different waste management facilities are required to re-use, recycle, compost and recover energy from our waste. No one type of waste management facility will resolve all our waste management options.

The Waste Local Plan has identified specific preferred sites and areas of search for the development of waste management facilities. The size and scale of the facilities will depend upon the potential of a given site and the integrated approach to waste management proposed by a developer. Any proposal for these sites will still be subject to a planning application, probable environment impact assessment and public consultation. Inclusion in the Plan does not infer that a planning permission will automatically be granted nor that other sites i.e. those not included in the plan, will automatically be excluded.

The potential waste management sites were selected to avoid affecting greenfield sites, which were not designated for industrial and employment uses.

Preferred sites / Areas of Search for the potential development of Waste Management Facilities

Site No	Strategic Sites	Site No	Local Sites
1	Wingmoor Farm West, Bishops Cleeve	7	Gloucester Business Park, Brockworth
2	Wingmoor Farm East, Bishops Cleeve	8	Moreton in Marsh, North Cotswolds
3	Sudmeadow, Hempsted	9	Phoenix House, Elmstone Hardwicke
4	Industrial Estate, former Moreton Valence Airfield	10	Land to rear of Dowty, Staverton
		11	The Railway Triangle, Gloucester
5	Sharpness Docks	12	Land adjacent to Sudmeadow, Hempsted
6	Reclaimed canal land, Netheridge (as an ancillary facility to Site 5)	13	Forest Vale Industrial Estate, Cinderford
		14	Canal Works, Lydney
		15	Lydney Industrial Estate, Sites A and B, Lydney
		16	Wilderness Quarry, Mitcheldean
		17	Wingmoor Farm South East, Bishops Cleeve
		18	Foss Cross Industrial Estate, Calmsden
		19	Old Airfield, Moreton Valence
		20	Site Adjacent to Gasworks, Bristol Road, Gloucester
		21	Netherhills Pit, Frampton-on-Severn

PLANNING POLICIES

The policies in the Waste Local Plan provide a detailed framework to help decision making on planning applications for waste development in the County. The policies help to fulfil the key objectives of the Plan and apply the Guiding Principles to the decision making process. The County Council has sought to be pro-active in the Plan by guiding development to where it should take place, as well as safeguarding areas which are judged to be inappropriate for development.

General Policies – These ensure planning permission is only granted when the application is considered to form the Best Practical Environmental Option (BPEO).

Waste Management Facilities and Operations – These policies set out the County Council's position regarding different waste management facilities and operations such as landfill and waste to energy recovery. They also control the location and siting of the various types of waste recovery and disposal facilities.

Environmental Constraints and Issues – These policies protect nature conservation, landscape, archaeology, historic environment, agricultural and water interests from the adverse impact of waste development.

Development Considerations – These policies provide guidance on detailed development control issues. They will ensure that appropriate planning controls and safeguards are attached to any planning consent. The policies cover various issues such as proximity to sensitive land uses, sustainable transport, traffic, noise, odour, hours of operation and planning obligations. Waste minimisation will also be promoted as a major principle to be considered in any development proposals. An Environment Impact Assessment will usually be required for Waste development.

CHAPTER ONE: INTRODUCTION

Waste in Gloucestershire

1.0 Approximately 1.1 million tonnes of waste is handled in Gloucestershire each year, with the majority currently being driven straight for disposal by landfill and landraising. This equates to a line of 55,000 lorries running from Gloucester to Glasgow [550km (340 miles)]. Reducing the length of this line of lorries and the amount of waste it carries is the objective of sustainable waste management.

1.1 Future waste management must acknowledge that there needs to be a change from the general attitude of waste being useless to being a valuable raw material. It is necessary that this "waste problem" in Gloucestershire is owned by local authorities, industry, commerce and the public. General presumptions that all waste is taken to some remote place and disposed of must change. Waste needs to be managed closer to where it arises. Undoubtedly this will result in a greater awareness of waste management facilities closer to the whole community. Clearly the best way of reducing the impact of waste management is not to produce as much waste in the first place. Therefore, the primary objective of a future waste management strategy must be for everyone to minimise the amount of waste they produce and the second objective will be to make the best use of it. Waste management standards must also improve to achieve better public acceptability and sustainability.

Roles and Responsibilities

1.2 There are over 550,000 waste managers and waste producers within the county. Coincidentally the population of Gloucestershire is over 550,000. Both at work and at home we all have a part to play in implementing a more sustainable waste management system. Whilst we all have responsibilities for waste, certain specific tasks are required to be carried out by specific organisations. Table 1.1 outlines the roles and responsibilities of the County Council and other authorities and agencies involved in waste management and regulation in Gloucestershire.

Table 1.1: The role and responsibilities of the various authorities involved in the management of waste.

Authority	Function
County Council (As Waste Planning Authority)	♦ Prepares the strategic waste policies for the Gloucestershire Structure Plan. ♦ Prepares the Waste Local Plan for Gloucestershire. ♦ Carries out Development Control: - determines planning applications; monitors and enforces planning controls.
(As Waste Disposal Authority)	♦ Lets contracts for the management of waste collected by WCAs (see below). ♦ Provides facilities for management of bulky household waste and recycling. ♦ Undertakes 'Closed Site' management for sites previously operated by the County Council. ♦ Prepares Municipal Waste Strategy
District Councils (As Waste Collection Authorities)	♦ Collect household waste and transport to waste management facilities. ♦ Prepare recycling plans. ♦ Run recycling facilities. ♦ Collect (at a charge) business and commercial waste.
Environment Agency (As Waste Regulation Authority)	♦ Regulates management of waste from production to disposal through a licensing system. ♦ Provides data on waste arisings. ♦ Has responsibility for protecting and improving rivers and groundwater. ♦ Advises on National Waste Strategy and its implementation. ♦ Provides advice on individual planning applications as a Statutory Consultee.

THE WASTE LOCAL PLAN: ITS CONTEXT

1.3 It is the function of the Waste Local Plan to set out the "land use" requirements necessary for waste management in Gloucestershire. This can include the infrastructure required to transport waste by rail, road or canal, or the specific sites for facilities for storage, treatment or disposal. The guidance that the Waste Local Plan gives is not just for dealing with the waste of here and now, but will also provide the framework for dealing with waste in the future.

1.4 The Gloucestershire Waste Local Plan provides policies and proposals which incorporate relevant European, National, Regional and Strategic legislation and guidance. Appendix 1 contains a bibliography of relevant guidance.

International and European Legislation and Policy

1.5 Concern over the increasing production of greenhouse gases and global warming, has lead to an increase in the awareness of climate change and future sustainable development. Nature conservation is also an important factor, particularly in the Severn Estuary. A number of relevant European Directives are listed at Appendix 1 to this Plan that are likely to influence the siting and operation of waste management facilities.

National Legislation and Policy

1.6 The National Waste Strategy, [Waste Strategy 2000 (May 2000)] is a waste management plan for England and Wales produced under the EC Waste Framework Directive, the EC Hazardous Waste Directive and the EC Packaging Waste Directive implemented by Section 44A of the Environmental Protection Act 1990 (as amended). It is also a Strategy for dealing with waste diverted from landfill in England and Wales, as required by Article 5 of the Landfill Directive. Importantly, statutory targets are set, and periodically reviewed, for the reduction of waste to landfill, recycling, composting and recovery. This strategy is supported by the Best Value Framework enforced by the Audit Commission.

1.7 In addition to this, Planning Policy Guidance Note 10 (PPG10) "Planning and Waste Management" was issued in September 1999. This replaces the parts of Planning Policy Guidance Note 23 (PPG23) "Planning and Pollution Control", which dealt specifically with waste management. It now provides a planning framework and criteria for the provision of waste management facilities for the Waste Local Plan. PPG10 also advocates setting-up Regional Technical Advisory Bodies (RTABs) to advise the existing Regional Planning Bodies.

Regional Policy

1.8 Regional Planning Guidance (RPG) prepared by the Regional Planning Bodies (RPBs) has a key role to play in waste management, since waste arisings, and opportunities for storage, treatment or disposal, do not occur uniformly across regions. In producing their Guidance, the Regions should be guided by the RTAB, which will assemble regional waste data and advise on options and strategies for dealing with the waste within each region. Gloucestershire County Council as a Waste Planning Authority is required to take account of its existing RPG for the South West and also Planning Policy Guidance Note 11 (PPG11) "Regional Planning Guidance" in producing its Waste Local Plan.

1.9 'Regional Planning Guidance for the South West' (RPG10) was published in 2001. RPG 10 includes the Government's targets and policies, and the projected implications of future legislation. It advocates policies to reduce the amount of waste generated and to increase waste recovery, including waste to energy potential. The emerging RPG was considered as part of Gloucestershire's Structure Plan and Waste Management Strategy.

Local Policy

1.10 The Waste Local Plan forms part of the Statutory Development Plan for Gloucestershire. It should be read in conjunction with the Adopted Gloucestershire Structure Plan Second Review, November 1999 (the 'Structure Plan'), the forthcoming Minerals Local Plan and the relevant District Local Plans. The Structure Plan contains the countywide framework for planning and development, with policies setting out the overall planning strategy for waste management. District Local Plans do not set policies for waste planning, but affect the land-use provisions of the Waste Local Plan. Appendix 2 lists the strategic and local plans that form the Development Plan for Gloucestershire, whilst the Structure Plan policies on waste are contained in Appendix 3.

1.11 The Waste Local Plan has been prepared in accordance with the strategic land-use planning policies for waste related development in the County, set out in the adopted Gloucestershire Structure Plan (paragraph 6.1 of PPG 12 – Development Plans). A Waste Local Plan cannot be put on initial draft deposit or revised deposit until the Waste Planning Authority has sent a copy of the Local Plan to the Strategic Planning Authority, who must supply the Waste Planning Authority with a statement that the Local Plan is, or is not, in general conformity with the Structure Plan. The Gloucestershire Waste Local Plan has been issued with a Statement of Conformity at both the Deposit Draft and Revised Deposit stages, therefore is in general conformity with the Structure Plan.

1.13 In June 1997, the County Council adopted the Waste Management Strategy for Gloucestershire. This is a 'non-statutory' document, but provides guidance for improving waste management practice and priorities in the County. It is the basis for the Waste Local Plan and sets out an holistic approach to waste management across the County.

1.14 The Gloucestershire Waste Local Plan ('Waste Local Plan' or 'the Plan') is a statutory plan, providing a detailed land-use policy framework for waste management development in Gloucestershire, required by the Town and Country Planning Act 1990 (as amended by the Planning and Compensation Act 1991). The aim of the Waste Local Plan is to progress the County towards more sustainable waste management practices.

1.15 The Waste Local Plan applies to the administrative County of Gloucestershire. The statutory plan period is ten years from adoption; estimated to be 2002-2012. The Plan will be reviewed at least every 5 years, or more frequently should the Waste Planning Authority consider it necessary.

1.16 Figure 1.1 shows how the statutory and non-statutory plans and strategies prepared by the various Authorities and Agencies fit together. It shows the inter-relationships between the documents, and highlights the key role of the Waste Management Strategy for Gloucestershire in achieving a framework for sustainable waste management across the County.

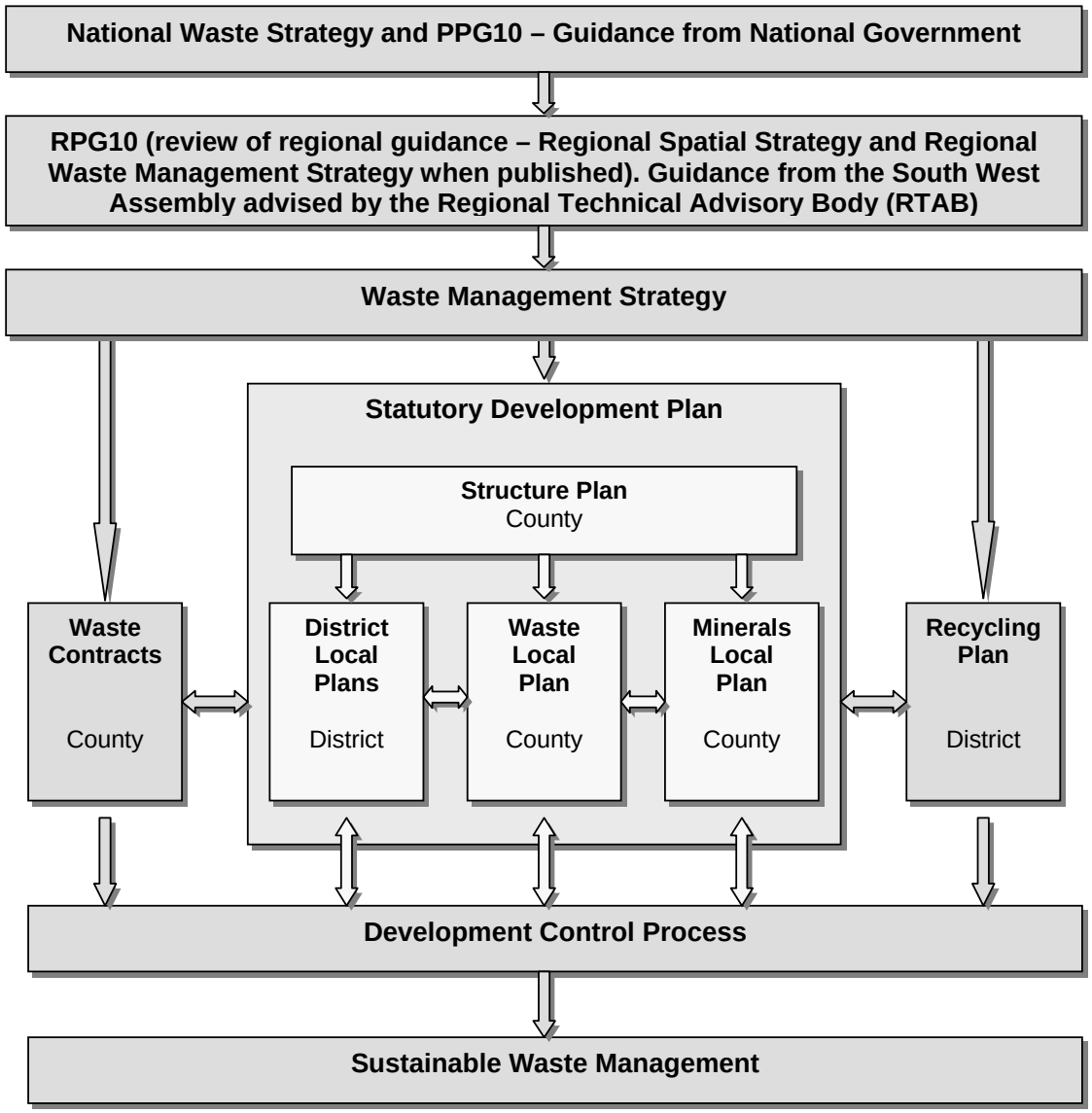
Planning Reforms

1.17 The Government is proposing fundamental reforms to the planning system in the Planning and Compulsory Purchase Act, whereby there will be a new structure for plan making. The new structure will encompass two tiers: a tier of strategic plan making, which will be at the regional level; and a tier of local decision making, at the district and unitary council level.

1.18 Statutory "Regional Spatial Strategies" will replace Regional Planning Guidance (with the abolition of county Structure Plans) and "Local Development Frameworks" will replace Local Plans and Unitary Development Plans. Minerals and Waste Local Plans will be replaced by "Minerals and Waste Development Frameworks" and will be prepared by County Councils.

1.19 The Gloucestershire Waste Local Plan will be saved for at least 3 years following the enactment of the Act, or for 3 years from the date of the Plan's adoption (whichever is the most recent). Future reviews of the Gloucestershire Waste Local Plan will be consistent with the new arrangements set out in the Act and eventually a Gloucestershire Minerals and Waste Development Framework will replace the Gloucestershire Waste Local Plan.

Figure 1.1 The Context of the Waste Local Plan



CHAPTER TWO: AIM, OBJECTIVES AND STRATEGY

GLOUCESTERSHIRE KEY ISSUES

2.0 What do we do with our waste now?

- Much of the waste in Gloucestershire is now disposed of in landraising sites. Quite literally it forms mountains of waste that can change the landscape of the County. An important proportion of waste is recycled and recovered, including some waste that is composted and returned to the land. Some selected wastes are exported for use in manufacturing industries in the UK and abroad. It is clear that an increasing proportion of Gloucestershire's waste is now being considered as a resource.

2.1 Why do we need to change?

- The European Union Landfill Directive (Council Directive 1999/31/EC) has set strict mandatory targets for reducing the amount of waste going to landraising or landfill. The National Waste Strategy introduces aspirational targets for reducing industrial and commercial wastes, and for the recycling, composting and recovery of municipal wastes. The imposition of legislation on packaging waste, electronic goods and household hazardous waste must lead to changes in the way we deal with waste in the future.

- The heavy reliance on disposal to landraising or landfill as the principal method of waste management in Gloucestershire is unsustainable. It is a missed opportunity to reclaim resources and energy, and results in economic, social and environmental costs. In future, waste must be considered as a resource rather than a problem and residues for disposal minimised.

2.2 What should we have instead?

- We need to find alternatives to landraising and landfill. The best solution is to reduce the amount of waste produced in the first place; and to re-use as much as possible any waste that is generated, through an integrated network of waste management facilities. These should provide a range of recycling opportunities as well as composting and energy recovery.

2.3 Where should these facilities be located?

- The location of these facilities is the function of this Waste Local Plan. The Plan will guide the development control process on the appropriate siting of waste management facilities through its policies and proposals, when the County Council considers future planning applications.

AIM

2.4 The aim of the Waste Local Plan is to help put in place a sustainable waste management system for Gloucestershire. The Waste Management Strategy for Gloucestershire, published in June 1997 states:

"Gloucestershire County Council is committed to the concept of sustainable, integrated waste management. The County Council's objective for sustainable waste management is to seek to achieve appropriate implementation of the concept in

Gloucestershire having regard to the best practicable environmental option for a particular waste stream."

2.5 Through the Waste Management Strategy, Gloucestershire's six District Local Authorities have endorsed this aim, and it is also fully supported by the Environment Agency.

2.6 Sustainable waste management is fundamental to the aim of this Waste Local Plan. Essentially it involves applying the broad concept of 'Sustainable Development' to the management of waste.

2.7 Sustainable Development demands the close integration of policies and decisions relating to the environment, natural resources and social and economic issues. These are identified in the Government's sustainable development strategy "A Better Quality of Life" (May 1999). The concept of sustainable development seeks economic and social development and the good management of our natural environment in a way that will secure a better quality of life for the residents of this County, now and into the future.

2.8 Improved waste management is an essential part of this drive towards sustainability. The real priority must be to raise waste awareness to help reduce the amount of waste produced in the first place, and promote greater waste re-use and recovery. Too much waste is currently disposed of in Gloucestershire, and of this, a very substantial proportion is currently disposed of as landfill and landraising. This is unsustainable in the long term. It is not only damaging to our environment and leaves an unwanted legacy for future generations, but waste as a resource for reuse and recovery is being neglected. For example, recycled aggregates as building materials would help to conserve both energy and natural resources.

2.9 This Waste Local Plan provides a policy framework that should help developers, the waste management industry and other stakeholders to make better integrated waste management decisions which:

- reduce the amount of waste produced; and then
- put the waste that is produced to good use through increased re-use, recycling, or perhaps a facility for composting or recovery of energy if that is more appropriate in the circumstances.

2.10 The Plan provides for the development of a range of waste recovery facilities in the County. A network of facilities located around the County's main population centres should reduce the social, economic and environmental costs of transporting waste, provide better access to waste recovery facilities and help natural resources be conserved. In respect of Municipal waste, 'Recover' means to obtain value from wastes through recycling, composting, other forms of material recovery (such as anaerobic digestion) and energy recovery (combustion with direct or indirect use of the energy produced, manufacture of refuse derived fuel, gasification, pyrolysis, or other technologies). The Government believes that recovery of energy from waste, through using it as a fuel, has an important role to play alongside recycling and composting in a system of sustainable waste management.

2.11 The aim of the Waste Local Plan will be implemented through the Key Objectives and the Waste Local Plan's Strategy (see next sections). The Plan provides a starting point for more sustainable waste development patterns; but changing the way the population of Gloucestershire thinks about waste and deals with it in the long term may go beyond the scope and life span of this Waste Local Plan.

KEY OBJECTIVES

2.12 The following key objectives provide the framework for developing the policies of the Waste Local Plan. They incorporate the strategic objectives set out in the Waste Management Strategy and in the Structure Plan. The key objectives are:

1. To reduce the amount of waste produced in Gloucestershire;

2. To make the best use of the waste produced within Gloucestershire through increased re-use and recovery;

3. To encourage sensitive waste management practices within Gloucestershire in order to preserve or enhance the overall quality of the environment and avoid risks to human health.

4. To achieve a more sustainable waste management system by using the Best Practicable Environmental Option methodology in decision making, and taking into account the guiding principles of the Waste Hierarchy, Proximity Principle and Regional Self Sufficiency (see next section for a guide to these principles);

5. To assist in creating economic prosperity and employment for Gloucestershire by encouraging competitiveness, meeting the needs of business, and in considering what new waste management enterprises will be required;

6. To ensure that waste management issues are properly considered and opportunities are incorporated into new development proposals.

7. To minimise adverse environmental impacts resulting from the handling, processing, transport and disposal of waste.

8. To protect public amenity from the adverse impact of waste management and to have regard to the need to protect areas of designated landscape and nature conservation value from inappropriate development.

9. To make the most efficient use of land by re-using appropriate brownfield land, industrial land, quarry voids and existing waste management sites in preference to undesignated green field sites;

10. To minimise the environmental impacts of transporting waste by applying the proximity principle, and encouraging more sustainable means of transport for the re-use, recovery and disposal of waste;

11. To provide clear guidance on the locational criteria that must be met before planning permission can be granted, and set out policies on planning conditions, planning obligations, monitoring and enforcement; and

12. To safeguard sites suitable for the location of waste management facilities from other proposed development.

THE WASTE LOCAL PLAN STRATEGY

2.13 The Waste Local Plan Strategy sets out how the Aim and the Key Objectives of the Waste Local Plan will be delivered. The Strategy is in two parts:

1. The Guiding Principles – these establish the concept of sustainable waste management and demonstrate the key criteria for decision-making.

2. The Geographic Statement – which takes into account the Guiding Principles, and explains how they will be applied in land-use terms.

THE GUIDING PRINCIPLES

2.14 Four principles will be used to guide land use decision-making in Gloucestershire, these help to promote the Key Objectives, and the application of these principles is an integral element of the Strategy of this Waste Local Plan. The Guiding Principles are:

- The Best Practicable Environmental Option (BPEO)
- The Proximity Principle
- The Principle of Regional Self Sufficiency
- The Waste Hierarchy

2.15 These principles have been identified by the Structure Plan Second Review (1999) and the emerging Structure Plan Third Review, and are derived from national planning policy and guidance. The National Waste Strategy advocates BPEO methodology for waste management, and includes the other principles as key considerations to augment the decision making process.

Best Practicable Environmental Option

2.16 Best Practicable Environmental Option (BPEO) is a procedure which helps determine the most appropriate waste management option for a particular situation. BPEO is defined as the option that provides the most benefits or the least damage to the environment as a whole, at acceptable cost, in the long term as well as the short term. The BPEO will vary from area to area and over time for each particular type of waste being managed. The BPEO for a particular type of waste is likely to be a mix of different waste management methods. To apply the methodology in a planning context, it must take into account the relevant Key Objectives of the Plan, economic and social considerations, land use implications, as well as environmental and resource impacts.

2.17 To assist in evaluating the BPEO, the other three Guiding Principles must also be taken into account. These are the Waste Hierarchy, Regional Self Sufficiency, and the Proximity Principle. Considering environmental, social and economic costs of transporting waste are also an essential part of the BPEO criteria.

2.18 Various tools and techniques are being developed to assist in assessing BPEO. The Environment Agency has developed a 'Life Cycle Analysis' software tool called WISARD, to model waste management options flows and impacts. The Waste Local Plan process goes as far as it can to establish the BPEO on behalf of the County but the process is limited in how far it can identify sites and waste management options. Technology, arisings and predictions may change and new sites may come forward unexpectedly. Where there are likely to be seriously harmful consequences of waste

proposals, including being in conflict with the Plan's "guiding principles", the need for the development will have to be established.

2.19 Gloucestershire County Council is committed to using BPEO as a tool in land-use planning, and particularly in waste planning, to ensure that, as far as is practicable, new development is sustainable.

The Proximity Principle

2.20 The Proximity Principle tries to reduce the distance involved in the transportation of waste. In essence waste management should take place as close as possible to its point of origin. It influences the BPEO for waste management, and is a factor in considering Regional Self Sufficiency (see below).

2.21 The proximity principle, as identified by Waste Strategy 2000, can make the link between the waste hierarchy and BPEO. Where the BPEO for a waste stream is towards the lower end of the waste hierarchy, this can often be because the environmental impact or cost of transport to a distant reprocessing facility or market outweighs the benefit of recovering the waste. The mode of transport and not just the distance should be considered; a longer journey by river or rail may be environmentally preferable to a shorter road journey.

2.22 The application of the Proximity Principle will help limit the environmental impact caused by transporting waste, help reduce the environmental costs of waste on communities that are not responsible for creating it, and also help raise awareness in local communities to take a more responsible and sustainable approach to managing the waste that they produce.

2.23 The distance waste travels will vary according to circumstance. For example, it is possible to process household waste close to its origin whereas special (hazardous) wastes require access to a limited number of more specialised facilities in the UK, which may justify transportation over longer distances. The Proximity Principle therefore has a local, sub-regional, regional and national dimension. 'Local' in the Waste Local Plan context is the area covered by the Waste Planning Authority, which is the administrative County of Gloucestershire.

Regional Self Sufficiency

2.24 Regional Self Sufficiency aims to provide sufficient waste management facilities to treat or dispose of all the waste produced in each region. Gloucestershire has a complex regional situation for land use planning. It lies within the South West region, but also adjoins the West Midlands and the South East regions and Wales. The Regional Planning Body for each region is responsible for preparing regional guidance for planning and waste issues, and is advised by its Regional Technical Advisory Body which provides specialist advice on options and strategies for waste management.

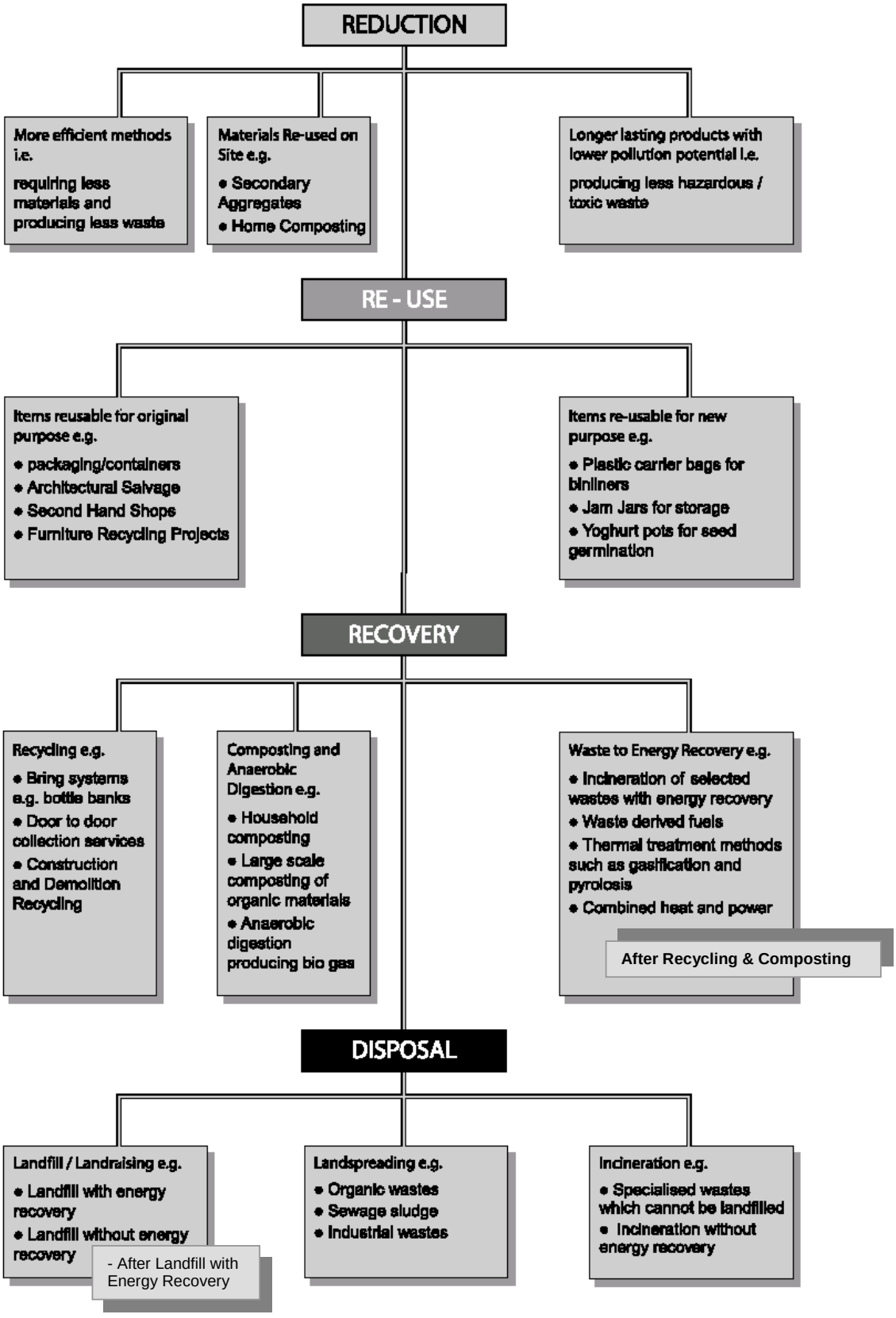
2.25 Regional Self Sufficiency for waste management should be reflected in the Development Plans of the region; Gloucestershire's Waste Local Plan forms part of this. Managing waste originating in adjoining regions would only be acceptable where it represented the Best Practicable Environmental Option. This could occur where waste management facilities are situated close to regional boundaries. But in general the Proximity Principle should reduce the need to transport waste across regional boundaries, and therefore most waste should be managed within its region of origin.

Waste Hierarchy

2.26 The Waste Hierarchy is a theoretical framework which acts as a guide to the waste management options that should be considered when assessing BPEO. The Structure Plan, in accordance with national planning policy, adopts a four-tier waste management hierarchy: Reduction; Re-use; Recovery and Disposal. Each tier is ranked according to its degree of sustainability, and provides a framework for decision making as varying proportions of all options in the hierarchy have a role in future sustainable waste management. Figure 2.1 provides an illustration of the relationship between the waste hierarchy and different waste management options.

2.27 Reducing the amount of waste produced in the first place is the primary and most sustainable aim of all waste management. Re-use is the second tier and presupposes little processing. Recovery implies some separation and re-engineering of materials in some way to produce new products e.g. glass, compost and energy. Waste to energy plants will be considered after recycling and composting. The balance, after all sustainable options have been applied would go to safe disposal.

Figure 2.1 the waste hierarchy and waste management options.



GEOGRAPHIC STATEMENT

2.28 The Geographic Statement expresses, in spatial terms, how the Aim and Key Objectives of the Waste Local Plan are to be achieved. It also informs the policies of the Waste Local Plan that have a geographic component. It is set out in Table 2.1.

Table 2.1: Geographic Statement

Ref	The Aim & Key Objectives of the Waste Local Plan will be achieved by	Chapter
A	Adopting a site-specific approach, where possible, for the development of waste management facilities.	4
B	Identifying and evaluating the existing network of waste management facilities, and identify sites with spare capacity for potential future use.	3 & 4
C	Identifying new or extended sites sufficient to make adequate future provision for new and/or replacement waste management facilities.	4
D	Identify, where possible, sites that need to be safeguarded for future waste management use.	4 & 5
E	Identifying areas of search within which particular waste facilities might be acceptable on planning grounds (where specific site identification is not possible).	4 & 5
F	Identifying appropriate locational criteria against which the development of waste management facilities can be considered.	4 & 5
G	Locating facilities on existing appropriate brownfield sites, appropriate industrial land and appropriately located existing waste management sites.	4 & 5
H	Providing integrated recovery and disposal facilities close to areas where a high degree of self-containment in waste management can be achieved.	4 & 5
I	Locating major waste management facilities near to major concentrations of waste arisings, principally associated with the Cheltenham and Gloucester urban areas; the Forest of Dean; Stroud and Cirencester.	4 & 5
J	Minimising the transportation of waste from the source of its arising and, where some transportation is necessary, encourage alternative modes of transport to road.	4 & 5
K	Identifying areas that are judged inappropriate for waste management facilities due to environmental and other development constraints.	5

CHAPTER THREE: GLOUCESTERSHIRE'S WASTE - ANALYSIS AND REQUIREMENTS

WASTE DATA AND CATEGORIES

3.0 There is an expression used by the waste industry "if you can't measure it, how can you manage it". Good information is essential for the development of sound waste management policies and sustainable waste management.

3.1 The Environment Agency supplies information on the quantities of Gloucestershire's waste from licensed sites. Some caution needs to be exercised with waste data generally as, for example, they are incomplete because data are not readily available from unlicensed sites. This problem is recognised and improvements in availability of data will be sought. One such improvement is requiring full production of data when planning permission is sought.

3.2 One of the limitations of the Environment Agency data is that it only includes the data on licensed waste sites. Licensed sites comprise waste management facilities that are required to obtain a Waste Management Licence under the Waste Management Licensing Regulations 1994 (SI 1056) issued by the Environment Agency. Sites that meet the requirements of Schedule 3 of the Waste Management Licensing Regulations 1994 and the 'relevant objectives' described in the legislation may be classed as 'exempt'. Such sites often handle lower volumes or less hazardous waste often with a view to recycling. Sites that do not require a licence, but still manage waste, are called 'exempt sites'. Exempt sites do not have to send waste data to the Environment Agency but do have to be registered with them. Such sites may also need planning permission. Usually exempt sites either deal with small quantities of waste, or waste that is considered to be inert. For example an exempt site might be a dental practice only producing 0.05 tonnes of medical waste a year, or it might be an "agricultural improvement" with a capacity to recover 50,000 tonnes of inert waste. The sum total of these exempt sites adds considerably to the available capacity for waste management within the County. The Waste Planning Authority will review waste data on a yearly basis as part of its monitoring and review process which will measure the effectiveness of the Plan.

3.3 The data indicates that for the last three years there has been a relatively constant amount of waste processed in Gloucestershire. The only clear trend is that over the last three years there has been a reduction in waste disposal to landfill and landraising. The apparent reduction in disposal is due to the diversion of inert wastes to transfer stations, recycling facilities and sites that claim exemption from Waste Management Licensing Regulations. There has also been some localised unlawful fly-tipping. The imposition of the Landfill Tax is believed to have influenced these trends.

3.4 A further limitation to the Environment Agency's data is that there is an element of double counting, particularly where waste is managed by a transfer or treatment operation with the residue going for final disposal. This double counting is not easily resolved: hence it cannot be claimed that approximately a third of all the County's waste is recovered.

3.5 From a planning viewpoint, most of the waste management facilities deal with the recovery and disposal stage. Waste can be divided into three basic categories. These are:

- **Special (or Hazardous) waste:** Special wastes are the most dangerous wastes and include hazardous or toxic wastes. They are listed in the Special Waste Regulations 1996 (SI 1996 No.972). Wastes are not Special if the hazardous properties set out in the Regulations are absent for any reason.
  Types of material include acids; alkaline solutions; asbestos; batteries; oil; fly ash; industrial solvents; oily sludges; pesticides; pharmaceutical compounds; photographic chemicals; waste oils; wood preservatives.

- **Inert waste:** Waste which will not biodegrade or decompose (or, will only do so at a very slow rate).
  Types of materials include uncontaminated subsoil; clay; sand; brickwork; some concrete; stone; silica; and glass.

- **Degradable (or Non-Hazardous) waste:** Waste, which will quickly or slowly biodegrade or decompose, releasing environmental pollutants.
  Types of material include topsoil; wood and wood products; paper; plasterboard; ash; plastic; leather; rubber; textiles; cardboard; vegetable matter; food processing wastes; sewage sludge; metals and chemical combinations thereof; coke; coal; mica; diatomaceous earth; slag; boilerscale; soap; cellulose; floor sweepings; sacks; electrical fittings; and appliances; machinery; cosmetic products; tarred materials; carbon; ebonite; pottery; china; enamels; abrasives; trees; bushes; grass; flowers and other vegetation.

3.6 Whilst this describes wastes once they have been collected, wastes are also defined at their collection point. Household “waste arisings” is the waste that is collected from the weekly collection rounds from houses.

3.7 Waste streams are the regular flow of waste materials from the point of arising to the waste management facilities. Figure 3.1 provides an overall picture of waste management and illustrates some of its key principles by using the analogy of a “river system”. In such a system as the rate of rainfall increases so do the levels of water in the rivers and streams. Eventually this will lead to flooding downstream. To prevent this, either defences such as dams and weirs are built to control the flow, or in some cases, the course of the river/stream is diverted. In this analogy, the amount of flow in the waste streams is governed by the amount of waste produced and managed within the County. As waste production increases so does the size of the waste stream, and consequently more facilities are required downstream to control and divert the flow of waste.

3.8 Likewise, the waste streams flow from the mountains of “waste arisings” towards the seas of disposal. In the past the flow of these waste streams went largely unchecked. However, the objective of the Waste Local Plan is to reduce this flow of waste to a trickle. In the context of the diagram, the main focus for the land use planning system is on the ‘plain of recovery’. It does this by making provision for the strategic location of appropriate waste management facilities to divert waste away from disposal. The diagram illustrates the linkages between waste reduction, waste arisings, waste recovery, waste disposal, and the waste hierarchy. To a lesser extent it also illustrates the proximity principle.

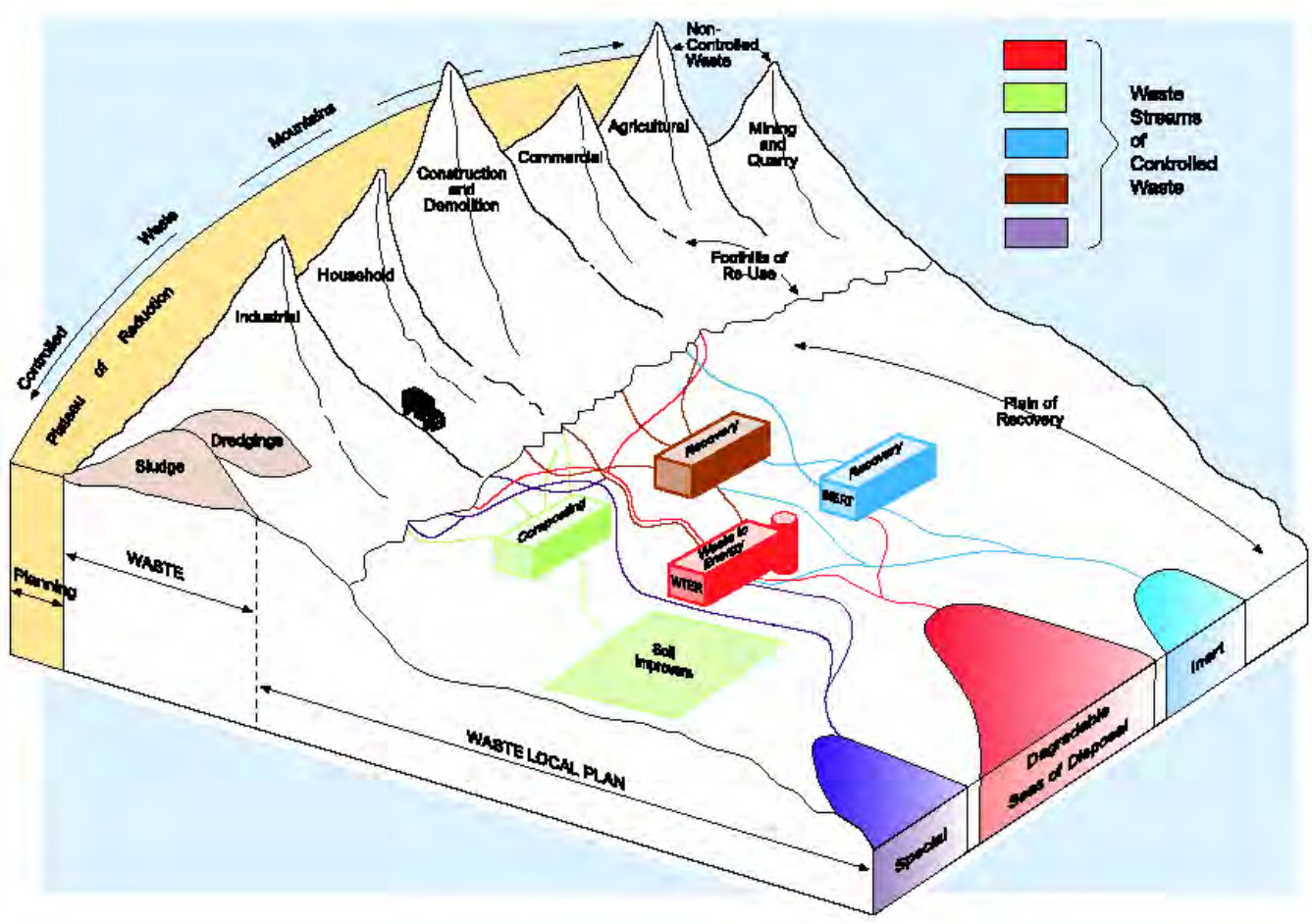
3.9 The waste hierarchy for this analogy has to be imagined lying on its side. It runs from the "plateau of reduction" to the "seas of disposal". The further upstream, facilities are built, the higher up the waste hierarchy they are considered as being. For the proximity

principle, the analogy is represented by the closeness of the waste management facilities to the point of origin to the waste arisings.

3.10 The issue of waste reduction is not just a consideration of the Waste Local Plan but a matter for all land-use planning proposals to address. Sustainable waste management begins at the same time as any scheme is being drawn up. It needs to be considered as part of both the construction phase and the operational life of any development. This applies as much to residential, industrial or commercial development as it does for waste management proposals.

3.11 The Waste Local Plan deals with the three categories of waste, in paragraph 3.6. There are, however, some specific wastes, which are not covered by planning legislation and therefore not covered by the Waste Local Plan. These wastes are Mining and Quarry waste, and Agricultural waste. Wastes from these sources are usually dealt with where they originate and are not classed as ‘controlled’.

Figure 3.1: SID Diagram



GLOUCESTERSHIRE'S WASTE

3.12 There are 101 licensed facilities, of which 75 are currently operational, and a further 447 registered exempt sites in Gloucestershire. But what is usually forgotten is that there are over 550,000 individual "waste managers" in Gloucestershire, namely the residents of Gloucestershire. Using their influence it should be possible to control and reduce the waste we produce; but in reality the amount of waste managed in Gloucestershire remains relatively constant. The starting point of good waste management is education, awareness and not producing the waste in the first place (reduction and minimisation).

3.13 Based on 2000/01 information supplied by the Environment Agency, approximately 1.1 million tonnes of waste is processed, treated, disposed of or exported from Gloucestershire every year. Approximately 788,000 tonnes per annum is disposed of by landfill or landraising, leaving about 330,000 tonnes being either treated, recycled or exported from the County. The breakdown of these figures is set out in the table below:

Table 3.1

Waste Managed in Gloucestershire in 2000/01					
MSW	**C&I**	**Metals**	**C&D**	**Special**	**Total**
268,502	370,552	154,320	278,982	45,892	**1,118,248**

3.14 Detailed waste data and projections are to be found at Appendix 8 to this Plan. The WPA will endeavour to review and publish an update of these data annually.

MUNICIPAL AND HOUSEHOLD WASTE

3.15 The County's Waste Collection Authorities (WCA) and Waste Disposal Authorities (WDA) processed about 260,000 tonnes of household waste (268,500 tonnes of MSW) in 2000/01. MSW comprises household waste with a small amount of trade waste collected by the WCAs (around 8,500 tonnes per annum). Of this waste, approximately 36,000 tonnes is recycled or composted. By the end of the Plan period (2012), with projections based on a variable percentage change , Local Authorities will be dealing with approximately 361,000 tonnes of MSW a year. The variable rate forecast offers a prudent balance between the 3% growth illustrated by arisings over the last nine financial years, and the introduction of strategies for minimising waste. The projected figures and local targets for household waste include, allowances for population increases, waste composition, increased waste production, non-statutory and statutory targets, and relevant guidance.

Table 3.2

The Effect of the Variable Percentage Forecast for MSW		
Year	**Variable Rate Change**	**Tonnage**
2000/01	3%	268,502
2001/02	3%	276,557
2002/03	3%	284,854
2003/04	3%	293,399
2004/05	3%	302,201
2005/06	3%	311,267
2006/07	3%	320,605
2007/08	3%	330,223
2008/09	2%	336,828
2009/10	2%	343,564
2010/11	2%	350,436
2011/12	2%	357,445
2012/13	1%	361,019
Total		**4,136,901**

3.16 In Gloucestershire there is currently a downward trend in the amount of total waste going to licensed landfill sites. However, wastes originating from households destined for landfill have shown an increase of 2% overall since 1996, whereas there has been an 8% increase in the recycling of municipal waste. This compares with a national average of 3% waste growth per year for household waste (National Waste Strategy for England and Wales – May 2000). A key objective of the Plan is that waste growth should be minimised and to achieve this national and local targets and restrictions have been set for household wastes in the Government's "Waste Strategy 2000". The Audit Commission, as part of the "Best Value" programme is setting recycling and composting targets for household waste at a local level. Each District waste collection authority (WCA) and County waste disposal authority (WDA) will have its own targets to meet. The targets relevant to the lifetime of the Plan are set out in the table below:

Table 3.3

Municipal and Household Waste Targets			
Year	**Recycling & Composting**	**Recovery**	**Landfill Reductions on Biological content**
2003/04	24%	-	
2005/06	36%	40%	
2010	36%	45%	75% of 1995 level
2013	36%	45%	50% of 1995 level
2015	36%	67%	

3.17 The following table sets out the tonnages of MSW, based on meeting the above targets, at the start and end of the Plan period:

Table 3.4

Impact of Targets on Municipal Waste Management			
Year	**Municipal Solid Waste Arising**	**MSW to be Diverted**	**MSW to be Disposed**
2003/04	293,399	68,179	225,220
2012/13	361,019	183,220	177,799
Total Up To 2012/13	**4,136,901**	**1,473,657**	**2,663,244**

3.18 Given the targets that need to be met, there must be a significant reduction in the level of municipal solid waste going to landfilling and landraising over the plan period. It is also currently predicted that, by 2012, waste management facilities in Gloucestershire will be required to recycle and compost 125,838 tonnes of household waste and recover 162,459 tonnes of municipal solid wastes as a minimum annually (it is anticipated that the former will constitute the majority of the latter), with no more than 177,799 tonnes annually being allowed to landfill. This latter figure is less than the total of municipal solid wastes disposed of by landfilling and landraising in the County today. The Waste Local Plan should, therefore, make provision for a range of waste management facilities to deal with different types of waste, other than disposal by landfill or landraising. Over provision of disposal facilities could undermine national and local sustainable waste management policies, and not allow Gloucestershire to meet statutory and non-statutory targets.

INDUSTRIAL AND COMMERCIAL

3.19 In "Waste Strategy 2000" there is a single non-statutory target set for commercial and industrial waste. This target requests that: by 2005 the amount of industrial and commercial waste going to landfill should be reduced to 85% of the 1998 level. It is estimated that, in Gloucestershire, this will mean that diversion will rise from the 40,781 tonnes of this waste that was diverted in 2000/01 through re-use, recycling, composting and recovery, to 45,449 tonnes in 2005/06 through to 2012/13. Added to this is the 154,320 tonnes of metal waste that is handled each year, though as this is a largely self-contained waste stream it has not been added to the C&I recycled total.

CONSTRUCTION AND DEMOLITION

3.20 Despite the reduction of this waste as a result of imposition of the Landfill Tax, in 2000/01 over 187,000 tonnes of inert wastes were disposed of at landfill or landraise sites. This excludes wastes going to sites that are agricultural improvements. This waste stream is linked to construction and demolition schemes and so is open to fluctuations in quantity. However, provided that the Landfill Tax remains in place, there is good reason to suppose that the downward trend will continue. The Plan's predictions assume no change to arisings over the plan period. This means that there is clearly a need for facilities that recover inert materials rather than to dispose of them by landfill or landraise. However, there may be a substantial element of benefit in some landfill projects and some inert waste will be required for capping, cover and site engineering.

3.21 The National Waste Strategy publishes an aspirational target for the increased use of inert waste as a secondary raw material. National targets are set to increase the amount of recovery of this material to 40 million tonnes per annum by 2001 and by 55 million tonnes

per annum by 2006. These figures were based upon the generation of 70 million tonnes of this waste in 1998 in UK. Relating these targets to Gloucestershire results in the requirement to recover 57% of inert wastes per annum by 2001 (179,786 tonnes), and 79% by 2006 (247,206 tonnes). Through the revised national and regional guidelines for aggregates provision in England, 2001-2016, (published by the ODPM in June 2003) the Government has introduced a further national target for the use of 60 million tonnes of secondary/recycled materials (in England) by 2011.

LANDFILL POSITION

3.22 Currently it is estimated that over 17 million cubic metres of permitted and licensed landfill and landraising void space exists in Gloucestershire. In 2002 operators are required to declare the void space to be devoted to hazardous or non-hazardous waste. The Environment Agency estimates that 13 million cubic metres could be assigned to non-hazardous, which includes municipal waste. At Appendix 8 of the Plan calculations are made on the basis of certain assumptions (for example waste growth rates, biodegradable content, targets being met, the amount of treated/transferred waste that is landfilled etc) that result in there being more than sufficient void space in the County for the Plan period. These data will be kept under annual review, adjusted as necessary and published. There will always be a role for landfill as the final method of disposal in any sustainable waste management system, but the objective will be to reduce its role to a minimum.

TOTAL REQUIREMENTS OF THE PLAN

3.23 The aim of the Plan, as explained in Chapter 2, is to steer Gloucestershire towards a more sustainable waste management system. In order to achieve this, an alternative approach to the current unsustainable landfill dependent system needs to be developed. Such a system makes the best use of the waste produced, by reuse and recovery, and minimising the amount of waste requiring final, safe disposal.

3.24 In order to meet targets for diversion from landfill to recovery, recycling or composting (see Appendix 8), there is a minimum requirement up to 2012 to provide capacity for about 1,473,657 tonnes of MSW, 2,582,954 tonnes of C&I waste (of which 2,006,160 tonnes is metal waste), 2,809,163 tonnes of inert C&D waste and 103,175 tonnes of special wastes. These figures are based upon the best available data.

3.25 The 1.1 million tonnes of waste the County deals with each year needs to be reduced and the amount that cannot be reduced needs to be diverted as far as possible from landfill/landraise to more sustainable options. By the end of the Plan period the 788,000 tonnes per year that now goes to landfill/landraise must be reduced to 573,000 tonnes per year from all sources, and the 330,000 tonnes per year now treated, recycled or diverted increased to 638,000 tonnes per year. These figures incorporate growth estimates and reduction and diversion targets. These figures, and the assumptions at Appendix 8, form the basis for the number and type of waste management facilities in Chapter 4. These facilities will be required in appropriate locations during the Plan period and each type of facility will need to be the best practicable environmental option at the time that planning permission is considered for it.

CHAPTER FOUR: FACILITIES AND PREFERRED SITES

WASTE MANAGEMENT FACILITIES

4.0 In order to meet the required capacity targets (Chapter 3), a number of suitable sites have been identified in this Chapter of the Plan. The Plan allocates specific sites, or small areas of search, together with a range of potentially acceptable waste management options. The objective is to achieve a range of waste management facilities that are the best practicable environmental options in Gloucestershire by encouraging, and allowing for, future improvements in technology. No one process can deliver an integrated waste management system for Gloucestershire. A combination of facilities and sites will be required to meet the demands for sustainable waste management in the County.

4.1 The following information sheets provide a guide to the various waste management options currently available. This however is not an exclusive list, merely an indication of potential options. The County Council will welcome new proven sustainable technologies as they come forward. The type of processes required now and in the future will depend upon the type of waste that needs to be dealt with. In order to simplify matters, the waste processes have been grouped as:

- Physical Waste Management Processes
- Biological Waste Management Processes
- Physio-Chemical Waste Management Processes

4.2 The potential contribution from alternative waste technologies has been recognised and the Plan has a flexible approach towards new technological developments, in accordance with guidance. The Plan will treat such proposals in accordance with the policies of the Development Plan.

4.3 There are a number of planning issues and considerations that are common to the development of all types of facility. These are dealt with in detail in Chapter 5 but the following should be borne in mind:

- There may be an element of double handling to separate wastes into useful commodities for markets.
- An Environmental Statement may be required to accompany planning proposals depending on size, scale and sensitivity of the site. It will be required for facilities on 'Strategic Sites'.
- Environmental impacts, such as traffic, noise, odour and dust can be controlled through planning conditions.
- The potentials for using alternative modes of transport to road need to be considered, i.e. water and rail.
- Landscape treatment and planting can be designed in to site development to reduce visual impact by screening, and bunding.
- The development of strategic sites is important if an effective network of facilities is to be established.
- Location needs to balance factors such as the industrial nature of waste management, with the need to reduce the cost of transporting and to be close to the markets for using the products and outputs.

4.4 The sites are divided into two groups, ‘Strategic’ and ‘Local', according to their capacity and the area they are likely to serve. A benchmark capacity of 50,000 tonnes per annum, based upon the likely requirement for Environmental Impact Assessment (EIA) when planning permission is sought, is used to distinguish between “Strategic” (50,000 tonnes and above) and “District” (or “Local”) (below

50,000 tonnes) sites. EIA is explained further at paragraphs 5.115-6 of the Plan. Some sites will have just one waste management facility but larger ones could have a range of them. This will depend upon the potential of a given site and the integrated approach to waste management proposed by a developer. Where appropriate the County Council will encourage associated markets for the recovered wastes to exist side by side with waste treatment facilities. This is to reduce transport across the County and encourage the re-use of resources within the County. The Waste Planning Authority acknowledges that some of the sites identified are in proximity to residential and other sensitive land uses. There is a public perception of harm from certain waste management processes. All development will have some environmental impact. Full consideration of the details of the environmental impact of any development is a matter for the planning application stage.

4.5 The Waste Local Plan makes provision for the development of waste management facilities, by developing planning policies and site-specific proposals to promote new facilities. The Structure Plan makes provision for a network of primary and secondary waste management facilities in the County including energy from waste facilities in or near to the Gloucester/Cheltenham area. These facilities will be subject to the provisions of this Plan, including the need to demonstrate BPEO and, for waste to energy plant proposals, prior consideration of recycling and composting options. It is important to develop a combination of different types of waste management facilities, as successful waste treatments depend upon the composition of the waste produced. As waste management becomes more sustainable, the composition of the waste will change. The demand for different types of waste management practices will therefore also change over time. The policies in the Plan dealing with the waste to energy process do not preclude other waste management options.

4.6 It is therefore important to retain flexibility to promote new technologies and proposals through the policies of the Waste Local Plan as a more sustainable waste management system evolves for Gloucestershire.

PHYSICAL WASTE MANAGEMENT PROCESSES

Household Waste Recycling Centres (also known as Civic Amenity Sites)

Special, Degradable and Inert Waste

These sites provide a facility for the delivery and sorting of household waste by the public. There is often scope for ancillary recycling activities on the site to recover materials such as metals, paper, glass and engine oil. The centres are also a source of organic wastes for composting. Wastes collected could easily be fed into a materials recovery facility to be assimilated with waste from other sources.

Advantages:

- Household waste recycling centres can be a valuable supply of source separated wastes.
- Provides the public with the opportunity to recycle their household waste.

Disadvantages:

- Impacts on the immediate locality.
- Increased traffic movements close to site, due to public access.

Site Requirements:

The facilities are generally small scale dealing with householders waste. Facilities may be ancillary and provide 'front end' recycling to an existing waste management operation. Facilities need to be located near to centres of population to maximise accessibility and ensure usage, often on edge of town locations. It needs an area of hardstanding to site recycling bins. Sites should be carefully designed to ensure that maximum recycling / recovery is achieved, and have good access with space for manoeuvring vehicles. The facilities could be either fully or partially enclosed, and be on an impermeable surface if they are likely to cater for oils, or similar polluting liquids. Surface water drainage needs careful design, and should be routed by an interceptor.

Inert Recovery & Recycling

Inert Waste

Inert Recovery and Recycling facilities re-use, recycle and transfer inert waste. They include construction and demolition wastes, the recycling of secondary aggregates at centralised processing facilities or on site. Facilities can be mobile, for example this would be appropriate for large scale demolition operations thus enabling waste to be recycled close to where it arises. A range of materials such as crushed concrete, road planings, minerals wastes and some industrial wastes can be recycled and utilised as substitutes for primary aggregates. Waste collected is delivered by skip or bulk vehicle for crushing, screening and grading for re-use. Unusable residues are used in landfill engineering.

Advantages:

- Reduces the amount of waste landfilled.
- Reduces the need for quarrying primary minerals.
- Mobile facilities enables on site recycling, which reduces double handling and unnecessary transport journeys.

Disadvantages:

- Recycled material may not be of high enough quality and specification to meet certain uses, thus reducing its market potential.
- Noise, dust and visual intrusion can be a problem.
- Storage of materials may be unsightly.
- May generate large goods vehicle movements.
- Removal of inert materials from the waste stream can delay restoration of mineral workings.

Site Requirements:

Hardstanding is required for stockpiles of material; and locating crushing, screening and grading machinery. Some elements of the operation and storage may be enclosed, but it is mostly undertaken in the open air. Suitable locations may be found in appropriate industrial areas, brownfield land, or associated with operational quarries or landfill sites. Facilities should be located away from residential areas.

Materials Recovery Facilities

Special, Degradable and Inert Waste

A Materials Recovery Facility [MRF] includes multi stream separation facilities, recycling treatment facilities and community recycling schemes. Such a facility receives sorted or unsorted waste, which is then separated into recyclable and non-recyclable components. Facilities that receive unsorted wastes are sometimes referred to as 'dirty MRFs'. A MRF may store waste waiting to be processed. Useful materials are processed into new products and non-recoverable materials go for further treatment or final disposal. Smaller facilities may deal with just one specific type of waste, larger facilities may sort over 30 different types of material.

Advantages:

- Can operate at various scales.
- A network of facilities is required if recycling is to make a significant impact on reclaiming materials from the waste stream.
- It will ensure that collected materials are sorted and supplied to the reprocessing industry.
- Can be added to existing waste operations.

Disadvantages:

- May increase local vehicular movements.
- Impacts on the locality similar to any other industrial process.

Site Requirements:

Industrial buildings and a storage area (possibly in the open) would be required. A facility can range from a small-scale local recycling operation to a strategic large scale facility dealing with 5,000 to 100,000 tonnes per annum and sites of 1-1.5 hectares could be appropriate. A building of sufficient size to accommodate a large tipping hall to deposit and load materials would be required. It would also need to accommodate equipment to wash, sort, grade, crush and bale materials, as well as storage and loading facilities for recovered materials. The facility should retain flexibility so that different materials from different sources can be sorted at different times to meet the variations of recyclables markets. Suitable urban locations would include industrial estates or warehouses or on appropriate brownfield land. There may be benefits in reduced traffic movements if located adjacent or close to a Household Waste Recycling Centre (Civic Amenity Site), or other waste management facility.

Metals Recycling Facilities

Inert and Special Waste

Metal recycling facilities is used as a generic term to cover traditional scrapyards, car breakers, vehicle dismantlers, metal recycling sites and sites used for the storage of abandoned vehicles. Car breakers or vehicle dismantlers contribute to metal recycling and the re-use of car parts, which avoid the waste stream altogether. Traditional metal recycling sites are recovery and bulking up facilities which concentrate on providing metals as high quality input to the smelting industry.

Advantages:

- Allows for the efficient recovery of metals for recycling
- Bulking up can reduce the overall number of vehicular movements

Disadvantages:

- Traditionally viewed as 'bad neighbour' development
- May increase vehicular movements locally
- Impacts on the locality including dust, noise, ground pollution and adverse visual impact where outside storage is involved.

Site Requirements:

Facilities can vary in size from small to large-scale operations. Due to their noisy, unsightly and industrial character, they will require careful siting in appropriate industrial areas. Modern facilities require industrial buildings able to accommodate workshops and storage space in addition to metal processing and sorting equipment. Small facilities could be accommodated as part of a larger waste management facility. Where possible, enclosing operations will help reduce environmental impacts. Facilities will need a suitable impermeable hard standing and to route surface water drainage via an interceptor to meet Environment Agency requirements.

Waste Transfer Station

Special, Degradable and Inert Waste

A Waste Transfer Station is a depot where waste from collection vehicles is stored temporarily prior to transportation in bulk to be recycled, composted or to other treatment and disposal facilities. Waste Transfer Station is a generic term which is used to cover operations that deal with all types of wastes, including special waste, clinical waste, inert waste, household/industrial/commercial waste and construction waste; and also includes different methods of transfer e.g. skip transfer, road to water and road to rail. Some stations may handle only one waste type; others may handle more, and may also include some small scale recycling.

Advantages:

- Appropriately located transfer stations provide a bulking up facility which can supply other waste management centres and industries.
- Reduces transport by allowing larger vehicles and different transport systems to be used to transport waste over larger distances if required.
- Network of facilities will ensure that collected materials are sorted and supplied to the reprocessing industries.
- Reduces the overall number of vehicular movements.

Disadvantages:

- May increase vehicular movements locally.
- May have environmental impacts on the immediate locality.

Site Requirements:

A Transfer Station can be a small facility serving the local community, or deal with between 5,000 to 50,000 tonnes per annum. An industrial style building would normally be required. The sites should be of sufficient size for sorting the waste and having good accessibility to receive delivery of collected waste and to transfer it in bulk by road, rail or water to other waste management facilities. Transfer facilities are needed in both rural and urban areas to provide an integrated network across the County. Locations could be on appropriate industrial or brownfield sites. Facilities will need a suitable impermeable hard standing and to route surface water drainage via an interceptor to meet Environment Agency requirements.

BIOLOGICAL WASTE MANAGEMENT PROCESSES

Anaerobic Digestion

Degradable Waste

Anaerobic Digestion is the biological degradation of organic wastes in the absence of oxygen. It produces methane gas, which can be used to generate electricity; therefore, it is also classed as a waste to energy technology; it has been used successfully for many years to treat sewage sludges, and the residue is suitable for use as a soil improver.

Advantages:

- It can produce a useful soil improver that can be used in land reclamation.
- It is a process that allows good control including containment of potential pollutants.
- The process traps methane, a greenhouse gas, which can be used as a renewable energy source.

Disadvantages:

- Requires a high degree of waste segregation to produce a marketable residue.
- It may not be economic due to the large capital investment required.
- There is a possibility of pollution from liquid effluent and other emissions/material.

Site Requirements:

Facilities can stand-alone or be part of a larger waste management site. It is industrial by nature, and would probably require an input of up to 50,000 tonnes of waste per year. A large industrial building and a large upright vessel would be required, with areas for sorting the different types of organic wastes. Buildings would also be needed to store ancillary equipment. Locations could be on appropriate industrial or brownfield land, near to the main source of waste to reduce transport costs.

Composting

Degradable Waste

Composting is the aerobic decomposition of organic waste to form a compost or soil improver, using windrows on a hardstanding or composting in large containers. Facilities can be centrally run sites and community or farm operations. Community operations combine groups of households whose organic wastes are combined to create larger volumes of compost. Home composting has long been undertaken by private households but wormeries [containers for a colony of worms] are also now being used to break down organic material into a fertile compost. The Environment Agency have a presumption against composting processes within 250m of a workplace or the boundary of a dwelling, unless it can be demonstrated via a site-specific risk assessment, that the bioaerosol levels are and can be maintained at appropriate levels.

Advantages:

- Removes a significant element of the waste stream as a useful material.
- Reduces the need for peat as humus in horticulture and land restoration.
- If the standard is high enough, compost can be used in agriculture and horticulture. There is potential for a large and reliable market for the compost with a wide geographical spread.
- Composting schemes can be farm based, thus assisting farmers to diversify their operations.
- Heat generated offers opportunities for horticultural heating schemes.
- Low cost to get established, and is suitable for small-scale production.
- Home composting reduces the volume of waste, and reduces transport.
- In-vessel composting gives better control over the process and emissions.

Disadvantages:

- Residues may be contaminated with heavy metals, residual glass, plastics & other materials. Quality is an issue.
- Without careful management the windrow method can produce odours, and emissions which can be a health hazard.
- Liquid effluent is produced which is potentially polluting.
- In vessel composting has a relatively high cost.

Site Requirements:

Composting can be carried out in the open in linear heaps (windrows) or as a semi-industrial process in a building (in-vessel composting). The scale of operations can vary considerably from small community schemes to large-scale centralised commercial facilities, which would have an impact on the appropriate siting. Small facilities may only require an area of hardstanding and drainage for composting; a covered area for screening and storing materials; and a small building for equipment storage. The compost is usually stored in the open. It could be located at existing landfill sites, quarries, appropriate industrial sites, brownfield land or in "redundant" buildings. Facilities will need a suitable impermeable hard standing and to route surface water drainage via an interceptor to meet Environment Agency requirements.

Fermentation

Agricultural wastes and clean biodegradable wastes (Green waste and segregated kitchen waste)

Fermentation treatment is confined mainly to agricultural wastes, but can be extended to pre-treated municipal solid waste to produce liquid fuel (ethanol, methanol). Waste fermentation uses organisms in the absence of oxygen to break waste down into a liquid fuel and a stable solid residue, followed by distillation. The process is similar to beer and wine making. This process is classed as waste to energy recovery technology.

There are two main bio-fuels produced, bio-ethanol and bio-diesel, which can be used as substitutes for petrol and diesel, or blended with them to reduce air emissions.

Advantages:

- Helps to reduce the consumption of non-renewable fossil fuels by producing a renewable (bio) fuel (ethanol) offering carbon dioxide neutral combustion (i.e. carbon dioxide emitted during combustion is offset by that absorbed during plant growth).
- Produces a cleaner less toxic fuel than oil-based fuels that can be used in road vehicles and in existing hydrocarbon infrastructure (e.g. internal combustion engine).

Disadvantages:

- The process is still being developed and tested.
- Financial costs are likely to be higher than composting but the process is less capitally intensive than incineration.
- There are some environmental concerns surrounding increased use of ethanol, which could cause increased emissions of nitrogen oxides and volatile organic compounds and an increase in smog.

Site Requirements:

Industrial buildings. Suitable urban locations would include industrial estates or warehouses or on appropriate brownfield land. Where treatment is restricted to agricultural wastes a rural location proximate to agricultural waste arisings may be appropriate in order to minimise the distance that waste is transported.

Mechanical Biological Treatment (MBT)

Residual Household, Commercial and Industrial Waste

MBT is a generic term used to describe hybrid technologies that use a combination of biological and mechanical steps to process waste. They are designed to process the residual fraction of MSW or C&I waste ie the fraction that remains after separate collection of materials has been carried out. These processes can use aerobic or anaerobic processes for biological processing; the mechanical step is designed to separate materials so that greater value can be achieved from the waste and/or allow the biological process to work effectively. Mechanical processing can take place before and/or after the biological process.

The design of these plants is determined by the anticipated end-use of the processed materials; many were originally designed to biologically stabilise waste prior to landfilling. Other output options include low-grade composted materials, production of solid recovered fuels or biogas. In most cases it is normal to remove materials that have economic value such as glass, stones and metals (typically up to 10% - 15% wt). Biological processing will naturally produce carbon dioxide and water vapour and will divert biodegradable waste from landfill. The weight loss from drying can be up to 25% wt.

If landfilled, the stabilised waste can have substantially less biodegradable content than raw waste. If composted the waste is considered to be "stabilised waste" and has limited and prescribed applications. If used as a fuel, it is still considered to be waste but is upgraded to have higher energy content and less pollution burden than raw MSW or C&I waste. Additionally, it has high renewable power content and produces less carbon dioxide per unit of energy than coal. Biogas can be created if the bio-fraction is anaerobically digested. The resulting gas can be burnt to create renewable electricity.

Advantages:

- Reduces the mass of waste inputted.
- Based upon a combination of existing proven techniques for treating residual fraction of MSW.
- Permits further recycling from the residual fraction.
- Enables energy content of waste to be recovered / can increase calorific value where drying takes place.
- Will divert high levels of biodegradable municipal waste and C&I waste.
- Lower environmental and visual impact than thermal processes.
- Can be modular, easy to add incremental capacity.
- Highly flexible, can convert to make different products and/or accept different feeds, eg separately collected biowaste. There can be designed to be part of an integrated system.

Disadvantages:

- Needs secure end markets to be available to deliver highest landfill diversion performance.
- Economics driven by security of end markets.
- No UK plant experience (yet), although some under construction.
- Traffic movements needed for input and output flows.
- Still produces a residue which may require further treatment.

Site Requirements:

Can be part of larger integrated waste facility. Buildings look like industrial units. Minimum throughput typically 20,000 tpa (although can be designed for much higher throughputs). Land take dictated by residence time; eg 85,000 tpa plant needs >1ha; any height constraints will also increase footprint.

PHYSIO-CHEMICAL WASTE MANAGEMENT PROCESSES

Waste To Energy Recovery Technologies

Special and Degradable Waste

Waste to Energy Recovery involves recovering value from waste in the form of energy – direct heat and/or electricity. It includes a potentially wide range of facilities. Technological development in this area is fast moving. There are technologies that have been well developed for waste management. Some technologies have been developed but still require full scale testing and other technologies are at the design and early development stage. Where waste to energy recovery forms part of an integrated waste strategy, the potential for including Combined Heat & Power (CHP) technology should be considered to maximise energy recovery. The types of Waste to Energy Recovery facilities available in the future is likely to expand, but at present it includes the following techniques:

- **Anaerobic Digestion with energy recovery** (Biological Process)
- **Feedstock Substitutes** (Physio-Chemical Process)
- **Feedstock Recycling** (Physio-Chemical Process)
- **Fermentation** (Biological Process)
- **Fuel Substitutes** (Physio-Chemical Process)
- **Gasification** (Physio-Chemical Process)
- **Incineration with energy recovery** (Physio-Chemical Process)
- **Plasma Arc** (Physio-Chemical Process)
- **Pyrolysis** (Physio-Chemical Process)

Of the above, those technologies that are considered fully developed and tested at a reasonable scale, and therefore represent proven technology, are currently Incineration with Energy Recovery, and Anaerobic Digestion.

Advantages:

- After recycling and composting, waste to energy plants provide the opportunity to recover value in the form of energy from the waste stream.
- Waste to energy is a form of renewable energy and helps reduce the use of fossil fuels and cut greenhouse gas emissions.

Disadvantages:

- Waste to energy technology suffers from the less stringent controls and pollution that occurred up to the early 1990's. Public perception seems often prejudiced by this historic technology and a fear of harmful emissions of dioxins, furans and heavy metals.
- There is a range of waste to energy technology, but many are still being developed and tested.

Feedstock Recycling

Mixed plastic waste

Feedstock recycling is a process whereby different types of plastic wastes are put through a chemical process (known as polymer cracking process) to create petroleum feedstocks or raw materials that can be used in refineries and petrochemical plants for making new products.

Mixed plastics are initially processed to produce agglomerate. The agglomerate subsequently feeds depolymerisation, cracking, separation and distillation processes to yield ethylene and propylene. These chemical feedstocks may then be used to produce fibres, plastics, detergents and adhesives. In the case of PVC-rich feedstocks, the polymer is decomposed at high temperatures from which hydrochloric acid is the main component recovered for subsequent re-use in the PVC production process as a raw material.

Advantages:

- This process would contribute to the plastics recovery rate.
- The process helps to increase the variety of plastics that are recycled into new and useful products.

Disadvantages:

- The low-density feedstock demands co-location between petrochemicals facilities and collection and bulking operations for mixed waste, which restricts the availability of potential locations for a facility.
- Impacts on the locality similar to any other industrial process.

Site Requirements:

Industrial buildings and a storage area would be required. A building of sufficient size to accommodate a large tipping hall to deposit and load materials would be required. Suitable urban locations would include industrial estates or warehouses or on appropriate brownfield land. Ideally the facility should be sited adjacent to existing petrochemicals facilities and collection/bulking operations for mixed plastic waste.

Feedstock Substitutes

Mixed plastic waste

Feedstock substitution is a process whereby mixed plastic waste is used as a substitute feedstock in blast furnaces in the iron and steel making process. Mixed plastic waste is used as a substitute source of carbon to coal, oil or natural gas. The carbon in the plastic waste acts as a reagent to reduce iron ore to the metal. The process has been adopted by the iron and steel industry in Germany. This process is classed as waste to energy recovery technology.

Advantages:

- This process would contribute to the plastics recovery rate.
- Helps to reduce the consumption of non-renewable fossil fuels.

Disadvantages:

- Impacts on the locality similar to any other industrial process.
- The process is still being developed and tested.

Site Requirements:

The process is connected to the iron and steel industry.

Fuel Substitutes

Municipal solid waste, tyres and spent solvents

This process involves the use high calorific value waste as a substitute to conventional fuels in industrial processes and power plants.

Wastes that can be burned in these industrial processes include municipal solid waste, tyres and spent solvents. Solid wastes are usually shredded. Examples of fuel substitutes include scrap tyres and solvent wastes used as a substitute for coal and petcoke in cement and lime kilns and packaging waste paper, biofuels and plastics used as substitute fuel in cement kilns.

Municipal solid waste can be used as a substitute for coal and to fuel incineration to achieve a more efficient burn, with less ash and emissions. This process is classed as waste to energy recovery technology.

Advantages:

- This process would contribute to the municipal solid waste recovery rate.
- Helps to reduce the consumption of non-renewable fossil fuels.

Disadvantages:

- The process is still being developed and tested.
- Environmental pressure groups have expressed concerns about releases of toxic pollution from the incineration of waste.

Site Requirements:

The process is connected to industrial processes and power plants.

Gasification

All combustible wastes, including wood, paper, plastics and some putrescibles not used for recycling

Gasification is a thermo-chemical process involving the conversion of waste into a gas via partial oxidation (using oxygen-rich air or oxygen) under the application of heat. The majority of the waste is converted into carbon fuel-rich gases with the remaining ash residue being virtually inert.

Feedstock waste requires pre-treatment to remove bulky or inert items and crushing and shredding to reduce particle size. This can provide opportunity to add recovery of recyclate at this stage. The waste is then fed into the heated reactor and is degraded by the heat to give a mixture of gases. The gas can be cooled and refined to produce a fuel product, some of which may be used to drive the process and the remainder sold for heat or power generation. The process is classed as waste to energy recovery technology.

Advantages:

- Because the process takes place in low oxygen conditions, the volume of process flue gas produced is significantly less than from incineration.
- Generally gasification plants are smaller than incineration with energy from waste plants (e.g. Grate and Furnace), and so would not inhibit recycling initiatives.
- Due to their energy value, the products have a relatively high value. There is potential for conversion of the products to higher value materials.

Disadvantages:
- Although using gasification as a means of dealing with municipal solid waste has commenced in some countries, the process has yet to prove itself as an economically viable and reliable.
- Potential for production of polluting gaseous emissions.

Site Requirements:

Gasification facilities are usually totally enclosed within an industrial style building and tend to be medium scale (circa 30,000 tonnes per annum and up) to make up for the high up front investment costs. Where there is a desire to have a front end MRF, the minimum area required would be in the order of 4 to 5 ha.

Incineration with Energy Recovery

Degradable and Special Waste

A variety of combustion systems have been developed from boiler plant technology and there are more novel techniques such as molten salt and fluidised bed incinerators. The incineration process involves waste being burnt to generate heat which is used to generate high-pressure steam which in turn generates electricity. Some of the electricity can be used for the operation of the plant and the remainder exported to the national grid. The surplus heat from the turbines can be used for local industrial and domestic heating schemes. Using Combined Heat and Power (CHP) technology helps maximise energy recovery but is dependent on purpose designed development or industrial processes nearby. Recyclable materials are extracted from the waste before being burnt. The ash from incineration can be used in the plastics industry and in the manufacture of building blocks. The remaining residues are finally disposed to landfill. Incineration without energy recovery would normally be unacceptable, except in specialised cases such as the destruction of clinical waste.

Advantages:
- Waste incineration has become a highly technical waste management option, capable of handling the volumes of waste which will remain after re-use, recycling and composting.
- It potentially provides a renewable source of energy until it begins to prejudice recycling, composting or other measures higher up the waste hierarchy.
- It is among the most strictly regulated waste management options, and the proposed Waste Incineration Directive will apply stringent emission limits to virtually all types of waste incinerator.
- There is potential for the recovery and industrial use of residues from incineration process.

Disadvantages:
- It is perceived as a more polluting technology than other methods.
- Incinerators might divert some waste away from recycling initiatives.
- Large plants are expensive and future choice may be restricted.
- Potential environmental and visual impact of a major site is substantial.
- Some ash requires landfilling especially that which is toxic.

Site Requirements:

Incinerators can range from small-scale plants to large installations. Some burn systems achieve economies of scale which can lead to facilities taking 200,000 tonnes per year. Modular burn systems are smaller, taking 20,000 - 90,000 tonnes per year and are designed for local communities. For a strategic facility, a site of around 3-5 hectares would be required. The operations tend to be totally enclosed, but sites should also be able to accommodate a range of integrated waste management facilities dealing with household waste recycling, composting and materials recovery. These could be located on appropriate industrial areas, brownfield land and existing waste management facilities, and should be located near to major waste arisings to reduce transport costs. To enable surplus heat to be used for community heating schemes, the plant needs to be near suitable industrial or residential development.

Plasma Arc

Mixed wastes (Municipal Solid Waste, hazardous and industrial waste with a high organic content)

Plasma Arc is an alternative heat combustion system for mixed wastes that is being developed from processes already operating in the metal refining industry. The system uses plasma arc heating (energy released by an electrical discharge in an inert atmosphere) which raises the temperature of the waste to anything between 3,000-10,000^{o}c.

The process is very different to combustion (incineration) in that it uses energy from the plasma to thermally convert organic waste from a solid (or liquid) to gas through a process called “controlled pyrolysis” or “controlled gasification” and avoids the need for large volumes of air to support combustion.

The process converts organic material into hydrogen rich gas and non-combustibles to an inert slag. The gas is

suitable for generating electricity. The slag can be used as an aggregate in the construction, packaging and insulation industries.

Advantages:
- The volume of gases discharged is generally less than 10% of that generated by incinerators with the same waste processing capacity.
- Where electricity is generated it can be can be used remote from the location of the facility.
- Since there is no oxygen available there is no oxidation phase, as a result the formation of furans, dioxins, fumes and ashes is prevented.

Disadvantages:
- The process is still being developed and tested.
- Capital intensive.

Site Requirements:

Industrial buildings and a storage area would be required. A building of sufficient size to accommodate a large tipping hall to deposit and load materials would be required. Suitable urban locations would include industrial estates or warehouses or on appropriate brownfield land.

Pyrolysis

Organic waste

Pyrolysis involves the heating of organic waste in the absence of air (anaerobic conditions) to produce a mixture of gaseous and liquid fuels and a solid inert residue. Pyrolysis requires a consistent waste stream such as tyres or plastics to produce a usable fuel product. Feedstock waste requires pre-treatment to remove bulky or inert items, and crushing and shredding to reduce particle size. The waste is then fed into the heated reactor. The waste is degraded by the heat to give a mixture of gases.

The products gas, burnable liquid and solids can be cooled and refined to produce a fuel product, some of which may be used to provide the heat for the process and the remainder sold. Alternatively the fuel can be used on-site for power generation. Pyrolysis is typically used as a way of managing specific waste streams such as plastics and tyres, however technologies are advancing to manage more mixed waste streams such as MSW.

Advantages:
- Because these processes take place in low oxygen conditions, the volume of process flue gas produced is significantly less than from incineration. Hence, gas cleaning can be more efficient.
- Generally pyrolysis plants will be smaller than incineration with energy from waste plants (e.g. Grate and Furnace), and so will not inhibit recycling initiatives.
- More effective energy recovery than Anaerobic Digestion or landfill gas utilisation

Disadvantages:
- Although using pyrolysis as a means of dealing with municipal waste has commenced in some countries, the process has yet to prove itself as an economically viable and reliable means for dealing with such waste.
- Prefers a homogeneous feedstock.
- Potential for production of polluting gaseous emissions.
- Changes in calorific value of waste can cause changes in operating costs.

Site Requirements:

Pyrolysis facilities tend to be medium scale (circa 30,000 tonnes per annum) to make up for the high, up front investment costs. Where there is a desire to have a front end MRF, the minimum area required would be in the order of 4 to 5 ha. Pyrolysis facilities tend to be accommodated within an industrial style building.

SITE SELECTION

4.7 Government Guidance states that the identification of specific sites for development is the best way the planning system can make provision for future waste management facilities.

4.8 The Plan identifies a number of 'Preferred Sites', that might be appropriate to locate waste management facilities. The preferred sites are the cornerstone of the Plan's provision, and a principle mechanism for guiding waste management development.

4.9 The selection of sites commenced with an investigation of those locations that already suffer, or are allocated in local plans to suffer, some environmental degradation. These sites may already have waste management facilities or be previously developed, have redundant or derelict buildings, or be allocated for industrial uses. Waste facilities would generally integrate better into these types of location. Other factors such as transport infrastructure and environmental designations and sensitivities were also considered in the sifting process. National guidance, such as that in PPG 10 ("Planning and Waste Management"), was applied.

4.10 Some 30 sites were assessed by desktop surveys, expert consultation, visual site appraisal, and through scrutiny by some environmental groups and elected members of District and the County Councils. During the assessment process some sites were removed because of obvious unsuitability or because there were better sites nearby. Some sites were added. A number of waste management options have been identified at certain sites to allow flexibility as technology and other circumstances change.

4.11 The preferred sites are set out in Schedule One of this Chapter as "Strategic" sites, or in Schedule Two of this Chapter, as "Other" sites. Schedule One contains a list of sites, with an indication of the type of operation that might be suitable and a site profile with a location plan. Schedule Two contains a list of sites with an indication of the type of operation that might be suitable and a site profile with location plan. General Criteria for Development, which any development proposal should demonstrate, are set out at the beginning of the Schedule, with Site Specific Criteria for Development relevant to each individual site set out in its site profile.

4.12 The Plan seeks to give an indication of what might be acceptable on the preferred sites by way of waste management options, capacity and any amelioration expected. In applying the proximity principle, especially to residential and commercial areas, care has been taken to try to select processes that could be compatible with their surroundings. This includes waste to energy plants that the Government does view as acceptable in principle (Waste Strategy 2000 Part 1 paragraph 2.23). As technology advances, sustainability in waste practices improves, and as facilities and locations are reviewed, preferred management options and preferred site locations may change. Linkages between waste management options, and particularly re-use and recycling, are of particular advantage if transportation requirements are reduced.

4.13 Any waste development on these sites will still be subject to the normal planning process and inclusion in the list does not imply that a planning permission will automatically be granted or that other sites will be excluded. The normal consultation will take place at which members of the public, any interested bodies or organisations and statutory consultees may submit views for consideration. Any site brought forward which is not in the Plan will be assessed against the policies of the Plan. Policies set out in Chapter 5, provide both the steering mechanisms to guide development towards these sites, and the criteria to be used when considering

planning proposals. Policy 6 also helps to develop a network of facilities across the County on sites not identified as being "preferred sites". Policies 4, 5 and 6 encourage additional waste management proposals on sites in locations that are on designated industrial land (employment), derelict despoiled and brownfield land, former or existing mineral workings and waste management facilities, existing or redundant buildings, suitable sites located to rail or water transport. The development of an integrated network of these waste management facilities will enable Gloucestershire to progress towards a more sustainable waste management system over the Plan period.

SCHEDULE ONE

List of Strategic Sites

Not all of the potential uses listed against each area would necessarily be developed on a particular site.

Development on all sites will be subject to planning permission and will be considered against the policies of the Development Plan.

		Waste to Energy Recovery (WtE)	WtE (Not including incineration)	Materials Recovery Facility	Inert Recovery and Recycling	Metals Recycling	Household Waste Recycling Centre	Anaerobic Digestion	Waste Transfer Station	Composting	Inert Landfill only	Landfill/ Landfill with Energy Recovery
Site 1	Wingmoor Farm West, Bishops Cleeve	❍		❍	❍	❍	●	❍	●	❍		●
Site 2	Wingmoor Farm East, Bishops Cleeve	❍		❍	❍	❍		❍	❍	❍		●
Site 3	Sudmeadow, Cory Environmental, Hempsted			❍	●	❍	●		●	●		●
Site 4	Industrial Estate, former Moreton Valence Airfield	❍		❍	❍	❍	❍	❍	❍	❍		
Site 5	Sharpness Docks, Sharpness		❍	❍	❍	❍	❍	❍	❍	❍		
Site 6	Reclaimed Canal Land, Netheridge (as an ancillary facility to Site 5)						❍		❍			

Key:

● : Waste Management Option Currently Undertaken at Site

❍ : Potential for Waste Management Option at Site

● : Waste Management Option Currently Undertaken at Site & has further potential for this Waste Management Option

Note: The term "landfill" should also be taken to mean landraise. The Key to environmental and other constraints & features on the Inset Maps is at Page 40. Please see the information sheets on pages 44 to 94 for a brief review of the waste management options.

GENERAL DEVELOPMENT CRITERIA FOR 'STRATEGIC SITES'

4.14 An Environmental Statement may (as required by the Environmental Impact Assessment Regulations 1999) be required to accompany any planning application for a waste management facility. It should adequately cover all relevant environmental impacts of the proposed development, including air pollution. Permission will not be granted for waste processing development unless the Waste Planning Authority is satisfied that unacceptable impact would not be caused.

4.15 Planning applications for waste management development should also address the following:

- An evaluation should be carried out of the potential environmental impact of development, including noise, dust, fumes, smell and traffic, on the surrounding area and highway network. Appropriate measures would be required to ensure that there would be no unacceptable impact on the local community or the wider area.

- Any new plant should be a good quality design having regard to the location of the site.

- The potential impact on watercourses and groundwater should be assessed and, where appropriate, measures taken to prevent any pollution. A hydrogeological survey may be required. Measures should be taken to contain any pollution arising within the site, in accordance with the requirements of the Environment Agency.

- Any application should include details of the destination of recycled and recovered materials from the site, and the destination and disposal methods for residues from waste processing.

- A transport assessment will be required to address the traffic generation of the proposed development and its impact on the local road network.

- Identify where a facility on a strategic site may work in conjunction with the existing network of waste management facilities and potential markets for the recovered materials.

- Show that alternative sites have been considered, and indicate why the particular site chosen is preferential for the proposed development.

SCHEDULE TWO

List of Local Sites

Not all of the potential uses listed against each area would necessarily be developed on a particular site.

Development on all sites will be subject to planning permission and will be considered against the policies of the Development Plan.

		Waste to Energy Recovery (WtE)	WtE (Not including incineration)	Materials Recovery Facility	Inert Recovery and Recycling	Metals Recycling	Household Waste Recycling Centre	Anaerobic Digestion	Waste Transfer Station	Composting	Inert Landfill only	Landfill/ Landfill with Energy Recovery
Site 7	Gloucester Business Park	❍		❍		❍	❍	❍	❍	❍		
Site 8	Moreton in Marsh						❍					
Site 9	Phoenix House, Elmstone Hardwicke		❍	●				❍	❍	❍		
Site 10	Land Rear of Dowty, Staverton	❍		❍			❍	❍	❍	❍		
Site 11	Railway Triangle Site, Gloucester	❍		❍	❍	❍		❍	❍	❍		
Site 12	Land Adjacent to Sudmeadow, Hempsted	❍		❍		❍	❍	❍	❍	❍		
Site 13	Forest Vale Industrial Estate, Cinderford		❍	❍		◍	❍		❍			
Site 14	Canal Works, Lydney			❍		●	❍	❍	●			
Site 15	Lydney Industrial Estate, Sites A, B and C, Lydney	❍		❍	❍	❍	❍	❍	❍	❍	●	
Site 16	Wilderness Quarry, Mitcheldean		❍	❍	❍	❍	❍	❍	◍	❍		
Site 17	Wingmoor Farm South East, Bishops Cleeve			❍	❍			❍	❍	❍		●
Site 18	Foss Cross Industrial Estate, Calmsden						●			❍		
Site 19	Old Airfield, Moreton Valence				◍							
Site 20	Site Adjacent to Gasworks, Bristol Road, Gloucester	❍		❍	❍		❍	❍	❍	❍		
Site 21	Netherhills Pit, Frampton-on-Severn				❍							

Key: ● : Waste Management Option Currently Undertaken at Site ❍ : Potential for Waste Management Option at Site
◍ : Waste Management Option Currently Undertaken at Site & has further potential for this Waste Management Option

Note: The term "landfill" should also be taken to mean landraise. The Key to environmental and Other Constraints & Features on the Inset Maps is at Page 40. Please see the information sheets on pages 44 to 94 for a brief review of the waste management options.

GENERAL DEVELOPMENT CRITERIA FOR 'LOCAL SITES'

4.16 An Environmental Statement may be required to accompany a planning application for waste management facilities. It should adequately cover all relevant environmental impacts of the proposed development, including air pollution. Permission will not be granted for waste processing development unless the Waste Planning Authority is satisfied that unacceptable impact would not be caused.

4.17 Any application for waste management development should also address the following:

- An evaluation should be carried out of the potential environmental impact of development, including noise, dust, fumes, smell and traffic, on the surrounding area and highway network. Appropriate measures would be required to ensure that there would be no unacceptable impact on the local community or the wider area.

- Any new plant should be a good quality design having regard to the location of the site.

- The potential impact on the watercourses and groundwater should be assessed and, where appropriate, measures taken to prevent any pollution. A hydrogeological survey may be required. Measures should be taken to contain any pollution arising within the site, in accordance with the requirements of the Environment Agency.

- Any application should include details of the destination of recycled and recovered materials from the site, and the destination and disposal methods for residues from waste processing.

- A transport assessment will be required to address the traffic generation of the proposed development and its impact on the local road network.

- Identify how a facility on a 'local' site may work in conjunction with the existing network of waste management facilities and potential markets for the recovered materials.

- Show that alternative sites have been considered, and indicate why the particular site chosen is preferential for the proposed development.

KEY TO FOLLOWING INSET MAPS

GLOUCESTERSHIRE WASTE LOCAL PLAN
ENVIRONMENTAL AND OTHER CONSTRAINTS

ENVIRONMENTAL CONSTRAINTS

SCHEDULED ANCIENT MONUMENT

SEVERN ESTUARY SSSI, RAMSAR, SPA, pSAC, KEY WILDLIFE SITE

AREA OF OUTSTANDING NATURAL BEAUTY (AONB)

SITE OF SPECIAL SCIENTIFIC INTEREST (SSSI)

GREEN BELT

PROPOSED AREA OF HIGH QUALITY LANDSCAPE (ESTUARINE/WATERCOURSE)

SPECIAL LANDSCAPE AREA (SLA)

KEY WILDLIFE SITE

LANDSCAPE CONSERVATION AREA

CONSERVATION AREA

BOUNDARY BETWEEN DEVELOPED/UNDEVELOPED COASTAL ZONE

HIGHWAYS

LAND SAFEGUARDED FOR HIGHWAY

PUBLIC RIGHTS OF WAY

PUBLIC FOOTPATH

PUBLIC BRIDLEWAY

ROAD USED AS A PUBLIC PATH

BYWAY OPEN TO ALL TRAFFIC

OTHER CONSTRAINTS

LAND ALLOCATED FOR HOUSING

NOTE: the list of environmental constraints is not exhaustive and must be viewed in conjunction with the individual proposals and other policies of this Plan.

GLOUCESTERSHIRE WASTE LOCAL PLAN PROPOSALS MAP PART A 'STRATEGIC SITES'

INSET MAPS

No.	Name of Site
1	WINGMOOR FARM WEST, SITES A & B, BISHOP'S CLEEVE
2	WINGMOOR FARM EAST, BISHOP'S CLEEVE
3	SUDMEADOW, HEMPSTED
4	INDUSTRIAL ESTATE, FORMER MORETON VALENCE AIRFIELD
5	SHARPNESS DOCKS, SHARPNESS
6	RECLAIMED CANAL LAND, NETHERIDGE

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ADOPTED GLOUCESTERSHIRE WASTE LOCAL PLAN 2002 - 2012

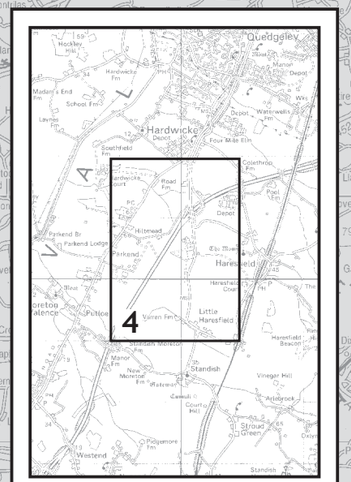
Inset Plan 1 & Inset Plan 2

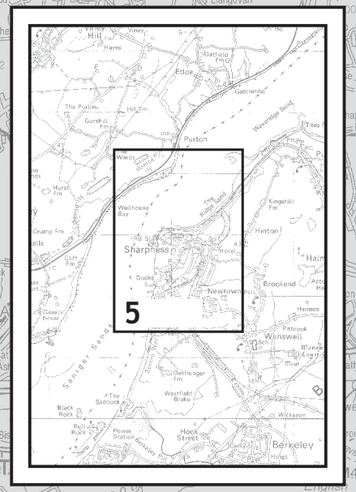
Inset Plan 3

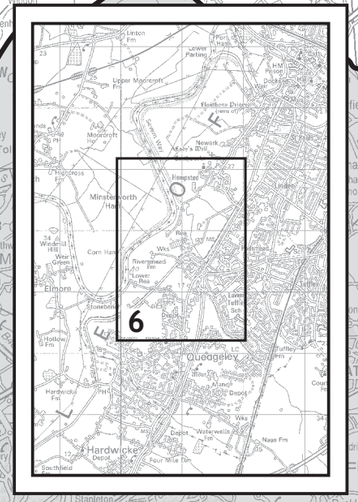
Inset Plan 6

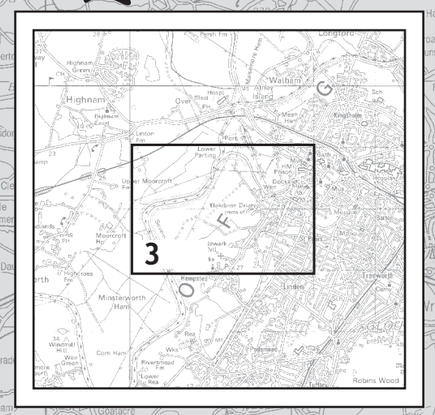
Inset Plan 4

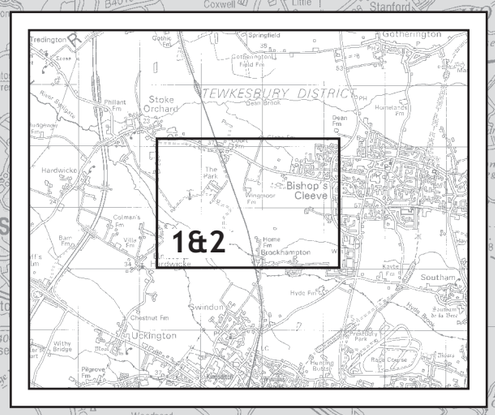
Inset Plan 5











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Scale: 1:250,000 and 1:100,000

GLOUCESTERSHIRE WASTE LOCAL PLAN PROPOSALS MAP PART B 'LOCAL SITES'

INSET MAPS

No.	Name of Site
7	GLOUCESTER BUSINESS PARK
8	MORETON-IN-MARSH, COTSWOLDS
9	PHOENIX HOUSE, ELMSTONE HARDWICKE
10	LAND AT 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

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Inset Plan 8

Inset Plan 9

Inset Plan 10

Inset Plan 11

Inset Plan 12

Inset Plan 7

Inset Plan 16

Inset Plan 13

Inset Plans 14 & 15

Scale: 1:250,000 and 1:100,000

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GLOUCESTERSHIRE WASTE LOCAL PLAN PROPOSALS MAP PART B cont'd 'LOCAL SITES'

INSET MAPS

No.	Name of Site
17	WINGMOOR FARM SOUTH EAST, BISHOP'S CLEEVE
18	FOSS CROSS INDUSTRIAL ESTATE, CALMSDEN
19	OLD AIRFIELD, MORETON VALENCE
20	LAND ADJACENT TO GASWORKS, BRISTOL ROAD, GLOUCESTER
21	NETHERHILS PIT, FRAMPTON-ON-SEVERN

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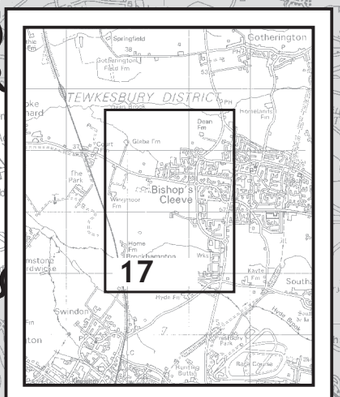
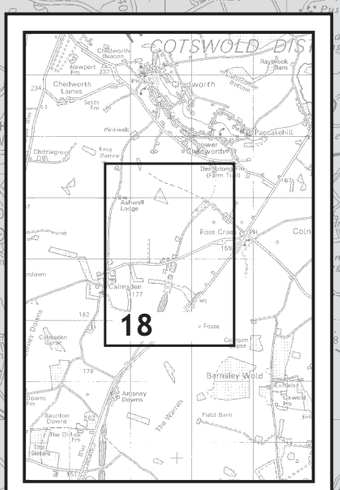
Inset Plan 17



Inset Plan 18



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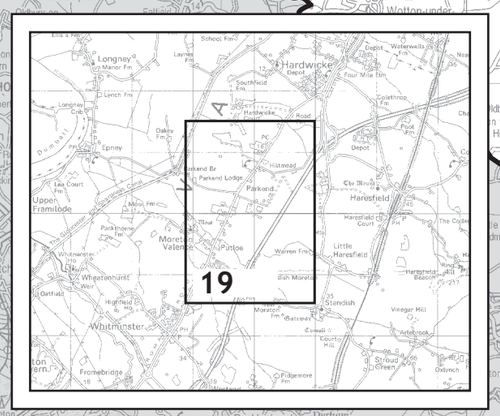

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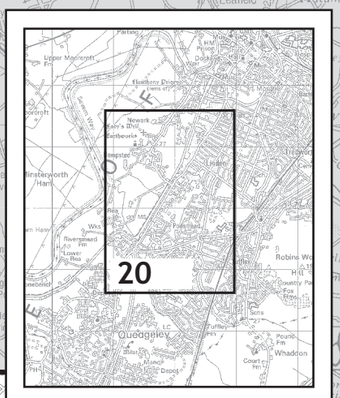
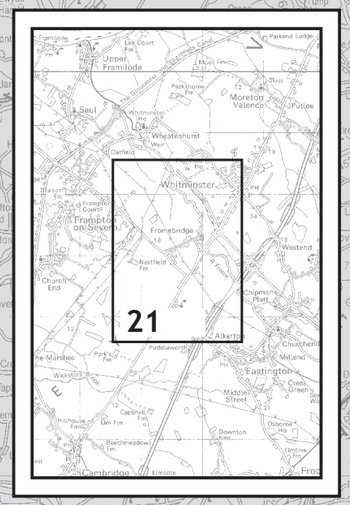


Inset Plan 21



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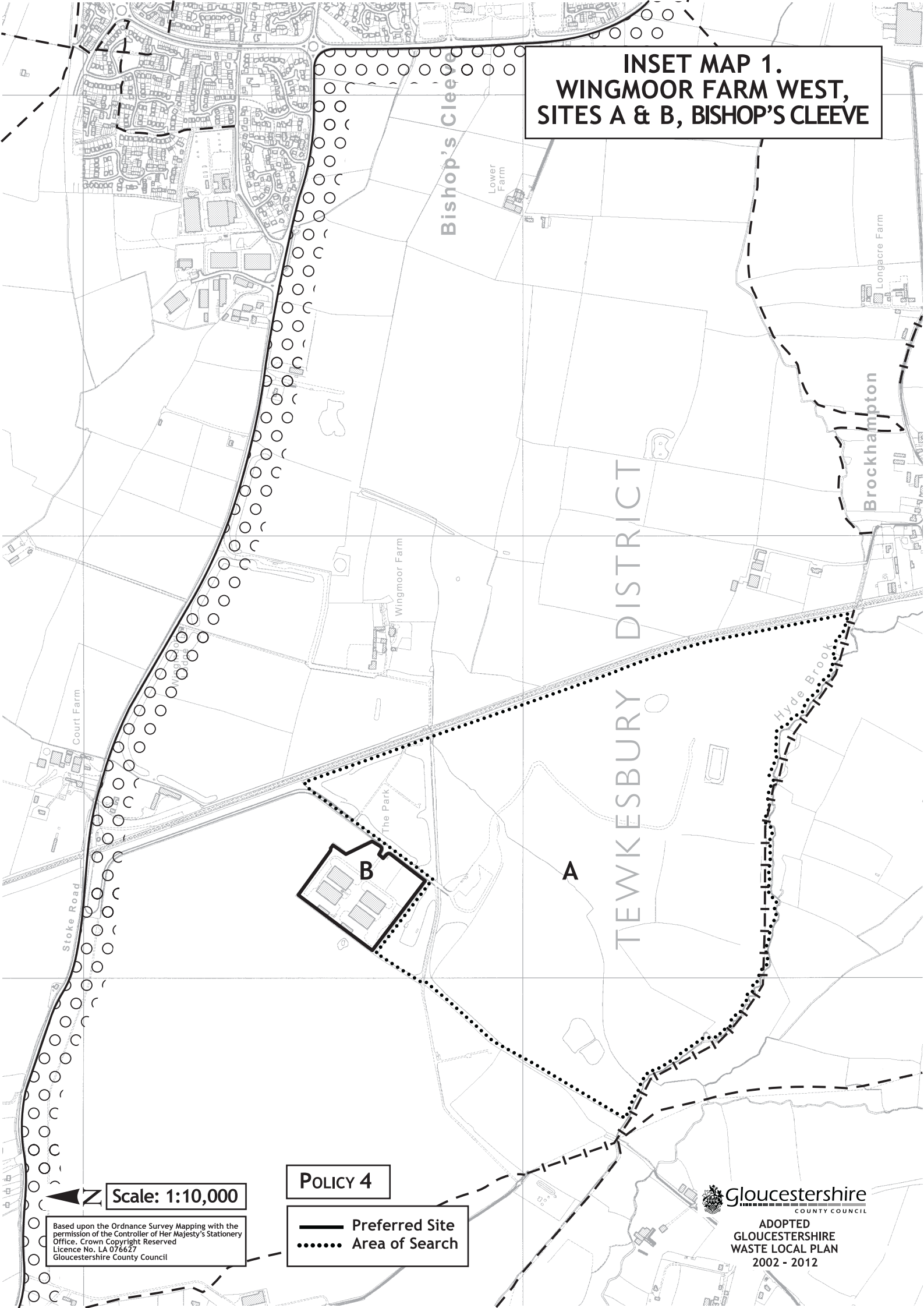
INSET MAP 1.
WINGMOOR FARM WEST,
SITES A & B, BISHOP'S CLEEVE
Bishop's Cleeve
Lower Farm
Longacre Farm
Brockhampton
TEWKESBURY DISTRICT
Wingmoor Farm
Court Farm
Stoke Road
The Park
Hyde Brook
B
A
Scale: 1:10,000
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Area of Search
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GLOUCESTERSHIRE
WASTE LOCAL PLAN
2002 - 2012

SITE PROFILE

Site Name: Wingmoor Farm West, Sites A & B, Bishop's Cleeve

Site No: 1

Site Area: 66.1 Hectares **District:** Tewkesbury Borough

Location: The sites are situated to the west of the residential area of Bishop's Cleeve and south east of the residential area of Stoke Orchard. A railway line bounds the site to the east and divides the site from the Wingmoor Farm East site (Site 2). The surrounding land uses are mainly agricultural and other waste management facilities.

Existing Operations: Landfill with Energy Recovery, a Transfer Station and a Household Waste Recycling Centre all exist on the site dealing with both household and commercial waste. Further Landfill and mineral extraction sites are in close proximity.

Further Information and History: The sites form a well-established waste management facility. Site A is a landfill site with energy recovery, and also includes a Household Waste Recycling Centre. Site B currently houses a waste transfer station in one of the existing buildings on the site. The owners have plans for re-development of the site and the replacement of existing buildings with modern commercial units for use classes B2 and B8. The sites lie almost in the centre of the County, in close proximity to Cheltenham and Bishops Cleeve and with access to Tewkesbury and Gloucester.

Constraints

Access: Main access to the site by road is from Stoke Road from the A435 to the east. Stoke Road to the west is restricted to vehicles passing through of less than 17 tonnes. HGVs use the existing highway network to reach the current landfill site. The adjacent railway line provides the opportunity for a potential on site rail connection.

Environmental: Within the Green Belt.
Visible from AONB.

Proximity to Dwellings: Approx 90m from several boundaries are individual farm units. The village of Brockhampton lies to the south of the site. Settlements of Bishop's Cleeve and Gotherington nearby to the north east, Brockhampton, Stoke Orchard and other small settlements around the south and west of the site.

Site Specific Criteria for Development

Any application for waste management development should in addition to the General Criteria also address the following:

- The site adjoins Hyde Brook. The potential impact on the watercourses should be assessed and, where appropriate, measures taken to prevent any pollution. A hydrogeological survey may be required. Measures should be taken to contain any pollution arising within the site, in accordance with the requirements of the Environment Agency.

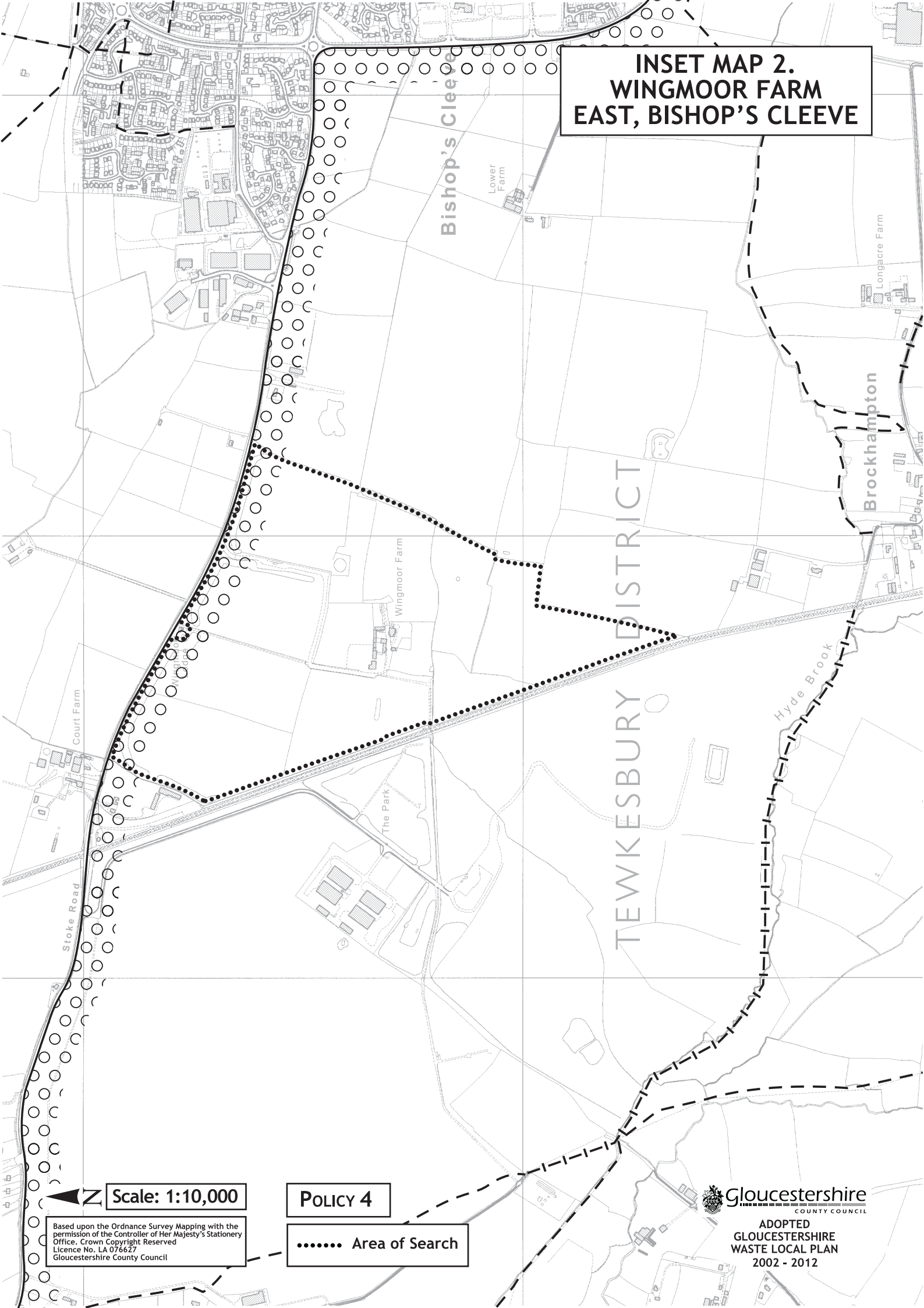
- New waste management facilities should be designed, and if necessary contained, to ensure that dust, odour, fumes, noise, litter and other effects do not have a materially adverse impact on nearby residents and businesses.

- Stoke Road requires improvement from the site to its junction with the A435 to make it more suitable for use by heavy lorries. Improvements are needed to Stoke Road to make it safer for pedestrians and cyclists from the A435 up to, and including, Stoke Orchard village. A Transport Assessment for any application for planning permission will be sought in accordance with Policy 39 assessing routes to connect with the M5, Cheltenham, Gloucester and Tewkesbury.

- The Green Belt status of the site may require demountable buildings to be provided on site A and their use limited to the duration of the landfill operations. Buildings on site B may need to be consolidated with those existing.[1]

- Where a Waste to Energy facility is proposed, applicants will need to outline the details of the energy recovery / and heating system proposed and should identify the envisaged energy clients.

[1] At the 5 year Review of this Plan the WPA will critically review the future waste management role of the site. The role of area A will be reviewed in particular, in the context of the expected timescale for future landfill and Green Belt policies.


INSET MAP 2.
WINGMOOR FARM
EAST, BISHOP'S CLEEVE
Bishop's Cleeve
Lower Farm
Longacre Farm
Brockhampton
TEWKESBURY DISTRICT
Wingmoor Farm
Court Farm
The Park
Hyde Brook
Stoke Road
N
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WASTE LOCAL PLAN
2002 - 2012

SITE PROFILE

Site Name: Wingmoor Farm East, Bishop's Cleeve

Site No: 2

Site Area: 48.7 hectares **District:** Tewkesbury Borough

Location: The site is situated to the west of the residential area of Bishop's Cleeve and south east of the residential area of Stoke Orchard. The railway line bounds the site to the west and forms the border with the Wingmoor Farm West Sites A & B (Site 1). The surrounding land uses consist mainly of agricultural land and other waste management facilities. The site also lies within the Green Belt defined in the District Local Plan.

Existing Operations: The site is used for the extraction of minerals and landfill/landraise of household, commercial and special wastes. Further landfill sites and a Waste Transfer Station are in close proximity.

Further Information and History: The site is a well-established waste management facility. It lies almost in the centre of the County, in close proximity to Cheltenham and Bishop's Cleeve and with access to both Tewkesbury and Gloucester.

Constraints

Access: Main access to the site by road is from Stoke Road from the A435 to the east. Stoke Road to the west is restricted to vehicles passing through of less than 17 tonnes. HGVs use the existing highway network to reach the existing landfill site. The adjacent railway line may provide the potential for an on site rail connection.

Environmental: Within Green Belt
Visible from AONB

Proximity to Dwellings: A farm lies to the north of the site. Settlements of Bishop's Cleeve and Gotherington nearby to the north east, Brockhampton, Stoke Orchard and other small settlements around the south and west of the site.

Site Specific Criteria for Development

Any application for waste management development should in addition to the General Criteria also address the following:

- The site adjoins Hyde Brook. The potential impact on the watercourses should be assessed and, where appropriate, measures taken to prevent any pollution. A hydrogeological survey may be required. Measures should be taken to contain any pollution arising within the site, in accordance with the requirements of the Environment Agency.

- New waste management facilities should be designed, and if necessary contained, to ensure that dust, odour, fumes, noise, litter and other effects do not have a materially adverse impact on nearby residents and businesses.

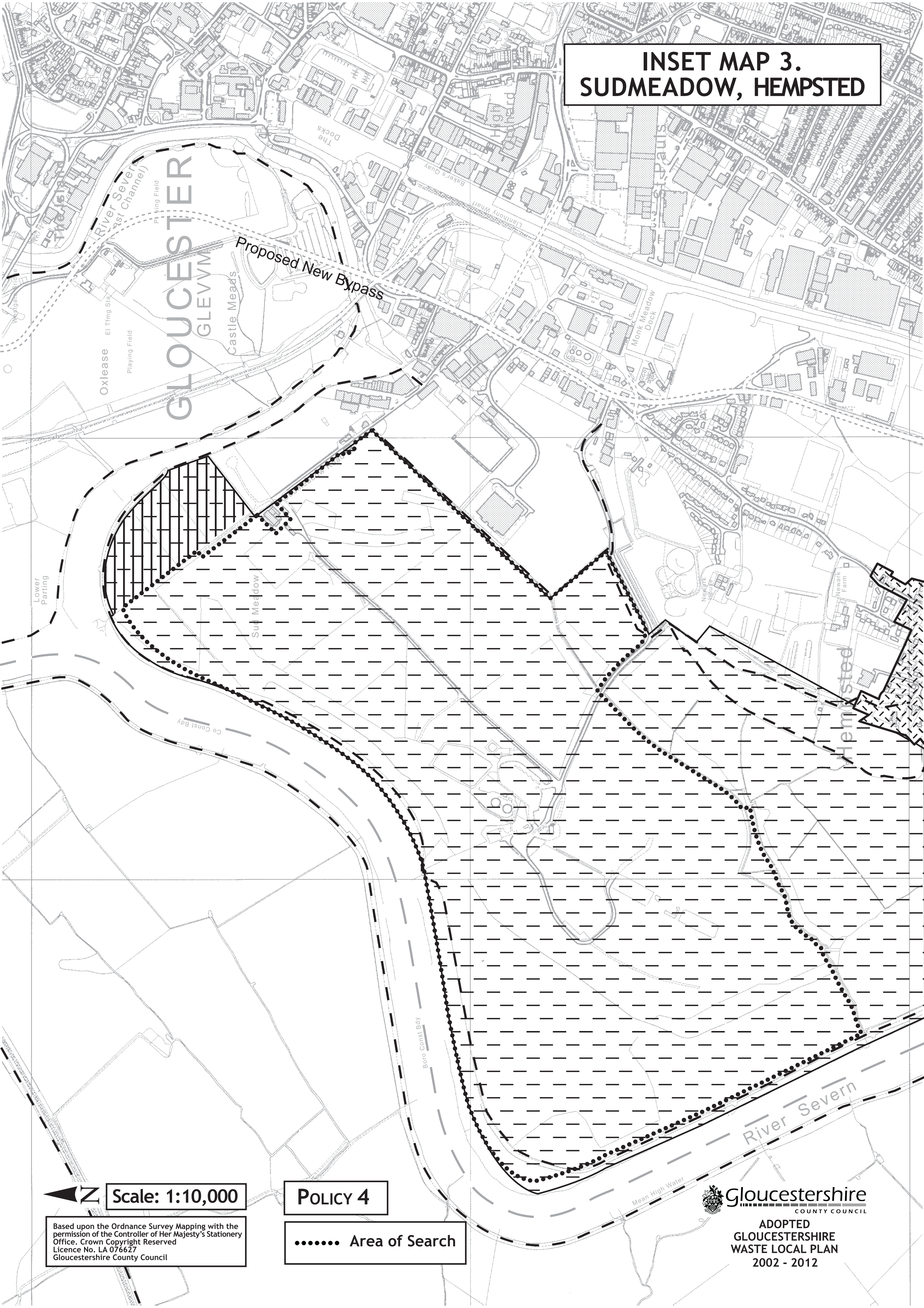
- Stoke Road requires improvement from the site to its junction with the A435 to make it more suitable for use by heavy lorries. Improvements are needed to Stoke Road to make it safer for pedestrians and cyclists from the A435 up to, and including, Stoke Orchard village. A Transport Assessment for any application for planning permission will be sought in accordance with Policy 39 assessing routes to connect with the M5, Cheltenham, Gloucester and Tewksbury.

- Where a Waste to Energy facility is proposed, applicants will need to outline the details of the energy recovery / and heating system proposed and should identify the envisaged energy clients.

- The Green Belt status of the site may require demountable buildings to be provided and their use limited to the duration of the minerals workings and landfill/landraise operations. [2]

[2] The future waste management role of the site will be reviewed in the context of the timescale of the existing landfill operations and Green Belt policies.

INSET MAP 3. SUDMEADOW, HEMPSTED



Scale: 1:10,000

POLICY 4

•••••••• Area of Search

Gloucestershire County Council

ADOPTED GLOUCESTERSHIRE WASTE LOCAL PLAN 2002 - 2012

SITE PROFILE

Site Name:	Sudmeadow, Hempsted.
Site No:	3
Site Area:	142 hectares **District:** Gloucester City
Location:	The site is situated on the western fringe of Gloucester, off Hempsted Lane. Bounded by the River Severn on two sides, part of the site lies in the flood plain. The residential area of Hempsted lies to the south-east. Surrounding land uses mainly consist of agricultural land, waterways, other waste management facilities, and industrial development.
Existing Operations:	Landfill with energy recovery, composting, recovery and recycling of inert material and a Household Waste Recycling Centre all exist on the site. Transfer stations, Materials Recovery Facilities, and metal recycling facilities are in close proximity.
Further Information and History:	The site is a well-established waste management facility. It lies in very close proximity to Gloucester and within reach of Cheltenham, Tewkesbury, Stroud and the Forest of Dean. The site meets the requirements of Structure Plan Policy and the Proximity Principle. However, Gloucester City Council maintained an objection to any expansion of the site at the Examination In Public of the Structure Plan. The site is not considered to be suitable for a large-scale waste to energy recovery operation in view of the impact upon the flood plain and the visual amenity of the approach to Gloucester City from the Forest of Dean.[3]

Constraints

Access:	Road access to the site is poor as the main access to the area is off Hempsted Lane, which in itself is only accessible at present by passing over a canal bridge. There may be a possibility of gaining access from the Gloucester South West by-pass when it is built, contributions to which may be sought. Whilst existing roads to the site are used by HGVs, a permanent Strategic facility would need a new access.
Environmental:	Within Flood Plain[4] - The site is within the 1947 floodplain. As such, some areas, with the greatest risk of flooding, may not be able to be used. The site is within a Landscape Conservation Area and adjoins a Key Wildlife Site.
Proximity to Dwellings:	Approx 100 houses lie around 180m from the South border of the site. Some adjacent land allocated for residential dwellings.

Site Specific Criteria for Development

Any application for waste management development should in addition to the General Criteria also address the following:

- The site adjoins the River Severn. The potential impact on watercourses should be assessed and,

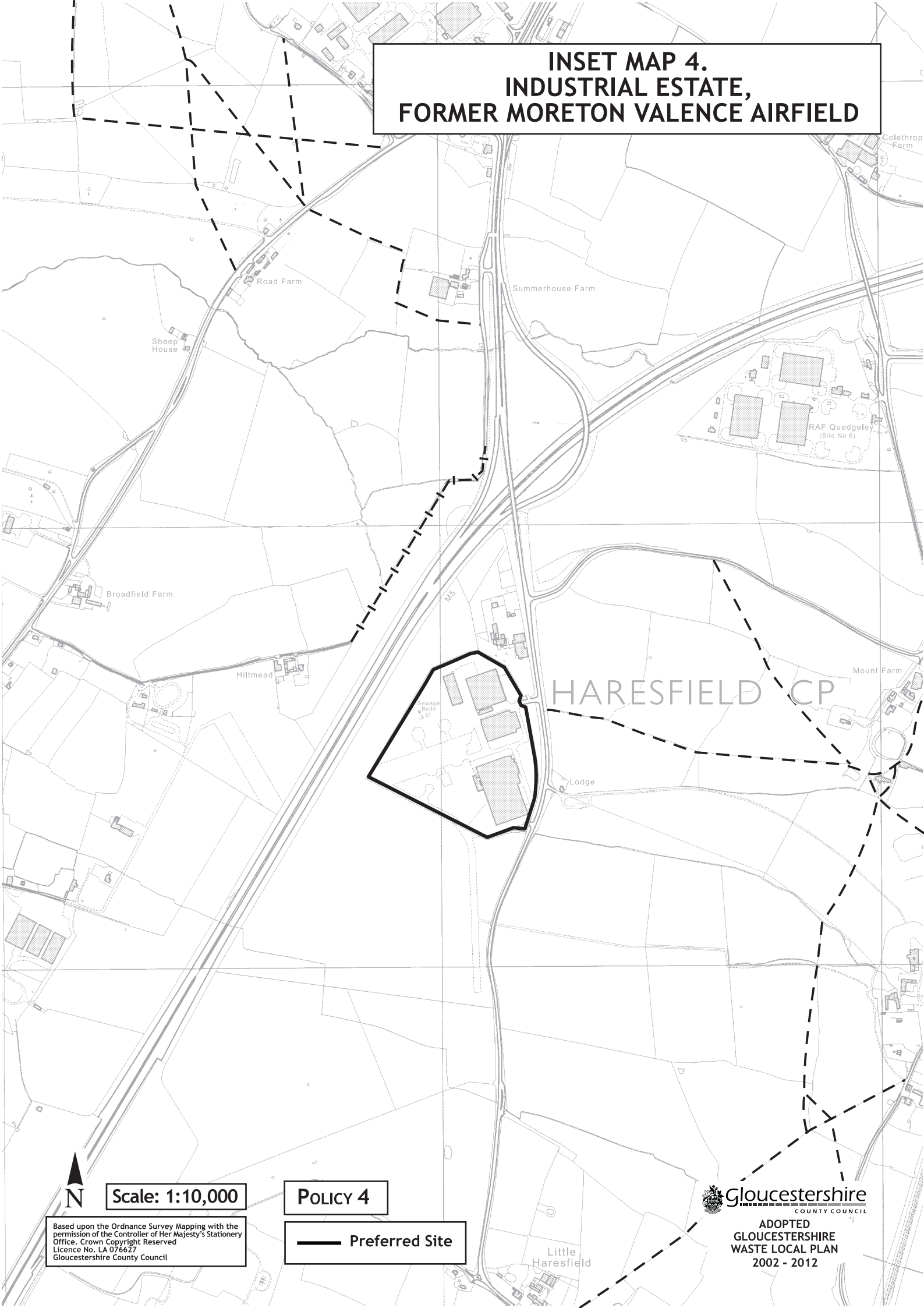
[3] *Upon review of the Plan the WPA will reconsider whether Sudmeadow should remain a strategic waste management site.*

[4] *On the basis of evidence submitted to the Public Inquiry, landfill/landraise is projected to end at this site by 2013. The long-term development of the area is constrained by its impact on views of the City and flooding. Consequently any new proposals for waste management should be linked directly to the life of the landfill/landraise. Any applications for any major waste management development should be accompanied by a full Environmental Impact Assessment including landscape and flood risk inputs.*

where appropriate, measures taken to prevent any pollution. A hydrogeological survey may be required. Measures should be taken to contain any pollution arising within the site, in accordance with the requirements of the Environment Agency.

- The risk and potential need for flood prevention and compensation measures should be considered as part of any proposal for development. Any proposals should satisfy the requirements of the Environment Agency in relation to flooding and the need to maintain flood capacity.

INSET MAP 4.
INDUSTRIAL ESTATE,
FORMER MORETON VALENCE AIRFIELD



N

Scale: 1:10,000

POLICY 4

Preferred Site

Gloucestershire COUNTY COUNCIL

ADOPTED
GLOUCESTERSHIRE
WASTE LOCAL PLAN
2002 - 2012

SITE PROFILE

Site Name:	Industrial Estate on the former Moreton Valence Airfield
Site No:	4
Site Area:	11.2 hectares **District:** Stroud District
Location:	The site is situated to the south of Gloucester along the B4008 towards Stonehouse. The site forms part of an industrial estate, which comprises of derelict land and large warehouse style buildings (ex hangers). The buildings are currently used for storage and distribution purposes.
Existing Operations:	To the South West of the site (on the other side of the motorway) there is a transfer station/material recycling facility which also takes limited quantities of cement bonded asbestos.
Further Information and History:	The site is designated as employment land in the District Local Plan. It has good road access and is fairly close to the main urban area of Gloucester. It could also serve the needs of Stonehouse and Stroud without the requirements of transfer stations in these areas. The site meets the requirements of Structure Plan Policy and the Proximity Principle.

Constraints

Access:	The main access to the site is from the B4008, which has access to the A38 and the motorway network. The point of access and egress will need some highway improvement. The site would benefit from the M5 Junction 12 upgrading proposal and its further development may only be suitable after its completion. Contributions may be required to A38 and M5 junction improvements depending on the intensity of any proposed use. A Transport Assessment for any application for planning permission will be sought in accordance with Policy 39 assessing routes to connect with the M5, Cheltenham, Gloucester and Stroud.
Environmental:	Visible from AONB
Proximity to Dwellings:	A single dwelling lies approx 247m from the boundary. Land nearby allocated for Mixed Use.

Site Specific Criteria for Development

Any application for waste management development should in addition to the General Criteria also address the following:

- Where a Waste to Energy facility is proposed, applicants will need to outline the details of the energy recovery / and heating system proposed and should identify the envisaged energy clients.

INSET MAP 5.
SHARPNESS DOCKS, SHARPNESS

N

Scale: 1:10,000

POLICY 4

Preferred Site

Gloucestershire COUNTY COUNCIL

ADOPTED
GLOUCESTERSHIRE
WASTE LOCAL PLAN
2002 - 2012

SITE PROFILE

Site Name: Sharpness Docks, Sharpness

Site No: 5

Site Area: Site A 17.2 hectares
Site B 8.4 hectares

District: Stroud District

Location: Sharpness is situated in the south west of the County adjacent to the River Severn. The dock area has historically been heavily industrialised with extensive dock development in the late 19th, early 20th Century. The Severn Estuary runs adjacent to the site.

Existing Operations: Several waste recycling companies are based in Sharpness handling plastics, office waste, metals and textiles. A company also holds a license for the re-use of incinerator ash.

Further Information and History: An existing industrialised area with several employment allocations in the District Local Plan, there is potential for the development of a Strategic waste management facility. The area suffers from unemployment, and needs new investment and regeneration. The sites can accommodate the expansion and development of associated industries adjacent to a Strategic waste facility.

The opportunity to make use of water and rail borne transport in relation to a waste management facility presents this area as a more sustainable option. Given the unique location of Sharpness in relation to sustainable transport opportunities, it may be considered as a possible option for the development of a regional scale facility. It was recommended at the Examination in Public for the Structure Plan for Gloucestershire, that the wider regional picture should be borne in mind. However, it is not the intention of the Plan that any waste imported into the County would be disposed of in the County. But imported waste could be processed here and the industrial benefits gained. The transportation of waste by road will have to be restricted to ensure the use of sustainable transport modes. Regional proposals would require much further detailed research and investigation

Constraints

Access: The area has a range of sustainable transport links. There is existing water borne transport infrastructure with access to the Gloucester – Sharpness Canal and Lydney Docks a short distance across the River Severn. Historically there have been good rail-links to the site, which could be reopened. Road access to the area is via the B4066 (which bypasses Berkeley) from the A38.

Environmental: Certain areas adjacent to / or within Conservation Area.
Part of Site A comprises a proposed Area of High Quality Estuarine Landscape (Estuarine/Watercourse).
Severn Estuary SSSI, RAMSAR, SPA, pSAC, and Key Wildlife Sites in close proximity.

Proximity to Dwellings: A small number of houses border one of the areas identified on the site

Site Specific Criteria for Development

Any application for waste management development should in addition to the General Criteria also

address the following:

- The site adjoins the River Severn, Docks and Canal network. The potential impact on the watercourses should be assessed and, where appropriate, measures taken to prevent any pollution. A hydrogeological survey may be required. Measures should be taken to contain any pollution arising within the site, in accordance with the requirements of the Environment Agency.

- A Transport Assessment will be required to address the traffic generation of the proposed development and its impact on the local road network. A weight restriction may be placed on the "old" docks entrance and contributions sought towards the construction of the A38 to Mobleys Link.

- The sites lie within the historic docks area. An archaeological evaluation would be required to determine the impact any development may have.

- In relation to site area B the prominence of parts of the site will require a low profile building of sympathetic design.

- The northern section of area A should not be encroached upon without cogent justification in relation to area B and the southern part of A. Any waste facility will require careful design and siting to ensure compatibility with the estuarine landscape and the Sharpness Old Dock Conservation Area.

- The Conservation (Natural Habitats, & c.) Regulations, 1994 (SI 1994 No. 2716) and the Conservation (Natural Habitats, & c.) (Amendment) (England) Regulations 2000 (SI 2000 No. 192) must be complied with.

- At this location the water and rail infrastructure are seen as crucial in any strategic waste management development. The WPA will actively discourage any proposals for waste management development, which are not primarily based on use of the water and rail transport. In this respect the WPA encourages any prospective developers to discuss the transportation requirements of waste management facilities at an early stage.

- Where a Waste to Energy facility is proposed, applicants will need to outline the details of the energy recovery / and heating system proposed and should identify the envisaged energy clients.

- Incineration is not considered to be appropriate at this site.

INSET MAP 6. RECLAIMED CANAL LAND, NETHERIDGE

SITE PROFILE

Site Name:	Reclaimed Canal Land, Netheridge *(as an ancillary facility to Site 5)*
Site No:	6
Site Area:	1 hectare **District:** Gloucester City
Location:	The site is situated on the western fringe of Gloucester, partly within land which currently forms the two mile bend at Netheridge. This will be reclaimed through the construction of this section of the Gloucester South West by-pass. Industrial and commercial development and the Gloucester to Sharpness Canal bound the site along with the Netheridge section of the By Pass (to be built).
Existing Operations:	Sewage Treatment Works, Transfer stations, Materials Recovery Facilities, and scrapyards are in close proximity to the site.
Further Information and History:	The site lies adjacent to what will become a major road junction. By placing a waste transfer facility here, in close proximity to waste arising from Gloucester and current waste management facilities, the waste could be transferred by barge to a strategic facility at Sharpness. Any residues requiring final disposal could be returned by barge to this site. The site meets the requirements of Structure Plan Policy and the Proximity Principle.

Constraints

Access:	Access to the site is most likely to be directly off the South West by-pass. There is however a complicated junction layout adjacent to the site and a bridge over what will be the new section of the canal. The site will be immediately adjacent to the canal infrastructure.
Environmental:	Adjacent to Landscape Conservation Area In close proximity to Key Wildlife Site
Proximity to Dwellings:	A small housing estate lies approx 250m to the west of the site

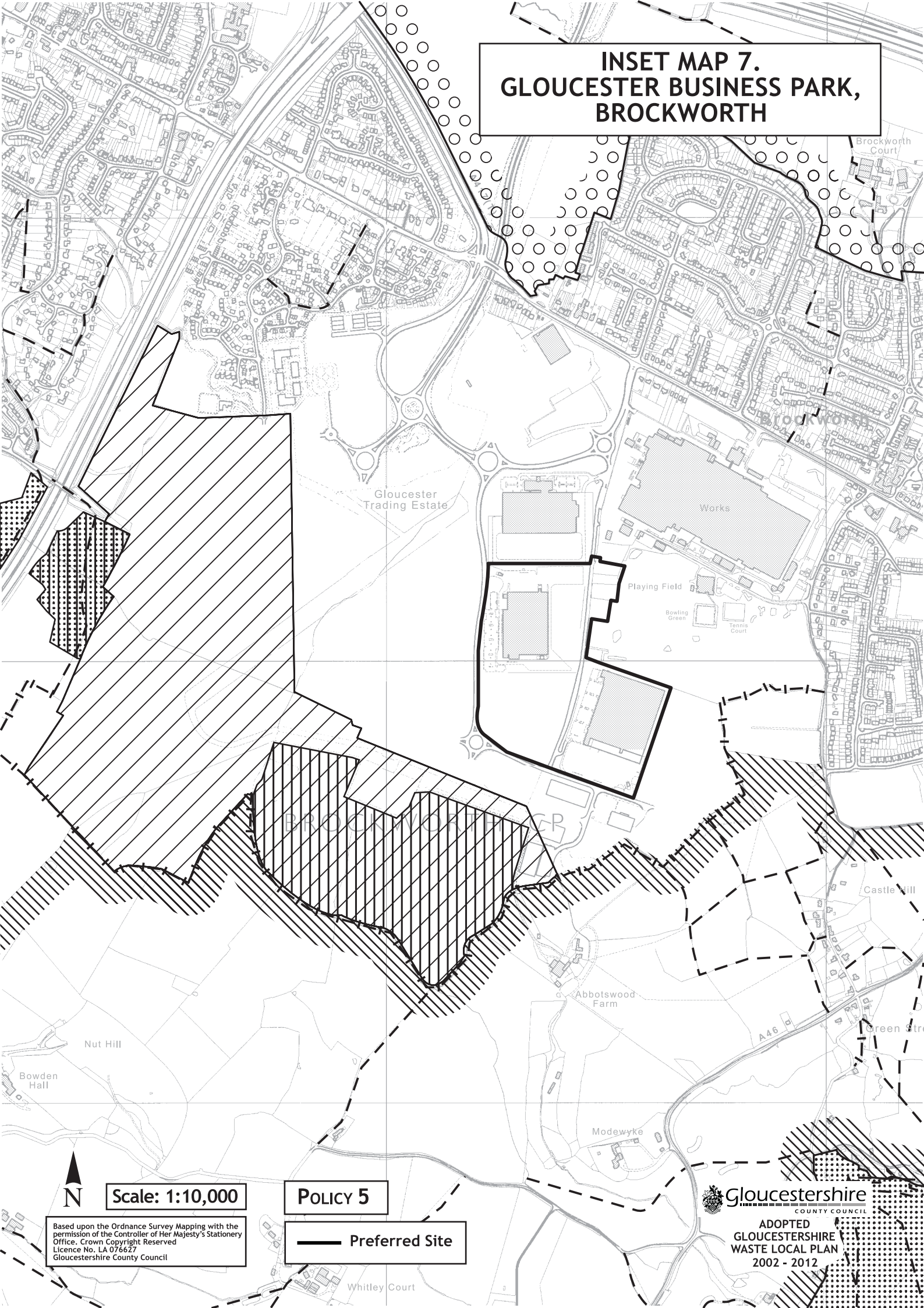
Site Specific Criteria for Development

Any application for waste management development should in addition to the General Criteria also address the following:

- The site adjoins the Gloucester to Sharpness Canal with the River Severn also in close proximity. The potential impact on watercourses should be assessed and, where appropriate, measures taken to prevent any pollution. A hydrogeological survey may be required. Measures should be taken to contain any pollution arising within the site, in accordance with the requirements of the Environment Agency.

- A Transport Assessment will be needed for the likely sources of waste passing through the facility and the types of road vehicle delivering and collecting them. The impact of traffic on the new by-pass and associated roads should be given particular attention.

INSET MAP 7.
GLOUCESTER BUSINESS PARK, BROCKWORTH



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Scale: 1:10,000

POLICY 5

Preferred Site

Gloucestershire COUNTY COUNCIL

ADOPTED GLOUCESTERSHIRE WASTE LOCAL PLAN 2002 - 2012

SITE PROFILE

Site Name:	Gloucester Business Park, Brockworth		
Site No:	7		
Site Area:	15 Hectares	**District:**	Tewkesbury Borough
Location:	The site is situated just off the roundabout at the end of the Brockworth by-pass. The residential area of Brockworth lies to the north and east of the site with the residential area of Hucclecote lying to the west. The site is a former airfield, which is currently being developed into a Strategic Business Park. The surrounding land uses are, heavy industry, warehousing and proposed new housing development.		
Existing Operations:	None in immediate vicinity.		
Further Information and History:	Coopers Hill LNR which is part of the Cotswold Commons and Beechwoods Site of Special Scientific Interest and Cotswold Beechwoods Candidate SAC lies to the south of the site which would need to be carefully considered. The site meets the requirements of Structure Plan Policy and the Proximity Principle.		

Constraints

Access:	Access to the site has recently been improved by the A417/M5 underpass link. (not indicated on the inset map)
Environmental:	Hucclecote Meadows SSSI lies off the west boundary of the site between land allocated for housing and the M5 motorway. Coopers Hill LNR which is part of the Cotswold Commons and Beechwoods Site of Special Scientific Interest and Cotswold Beechwoods Candidate SAC lies to the south of the site. Part of the site lies Adjacent to AONB.
Proximity to Dwellings:	A row of houses borders the site. A large area of land is allocated for housing development adjacent to the west and south of the site.

Site Specific Criteria for Development

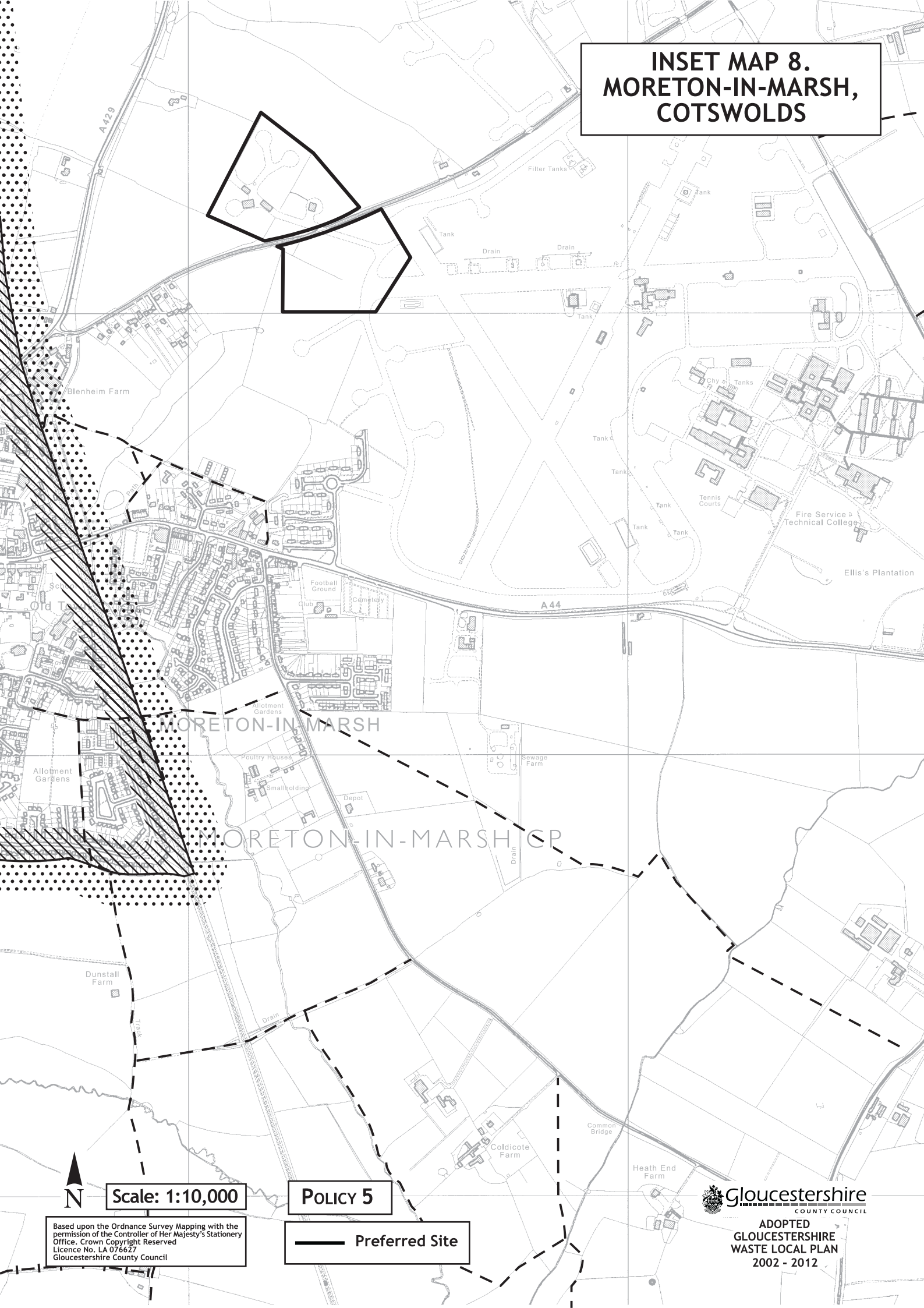
Any application for waste management development should in addition to the General Criteria also address the following:

- The site lies within an extensive area of Roman Settlement. On the site itself Roman fields and burials have been found near the southern boundary. Archaeological evaluation would be necessary in order to determine the impact of any development.

- Because of the relatively high environmental quality of the site area and surrounding land uses and the strategic importance of the Business Park it will be necessary for operational areas to be fully enclosed and for vehicles servicing for the facility to conform to appropriate environmental standards. The type and volume of traffic generated and access arrangements will be scrutinised for compatibility with other land uses.

- Where a Waste to Energy facility is proposed, applicants will need to outline the details of the energy recovery / and heating system proposed and should identify the envisaged energy clients.

INSET MAP 8. MORETON-IN-MARSH, COTSWOLDS



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Scale: 1:10,000

POLICY 5

Preferred Site

Gloucestershire COUNTY COUNCIL

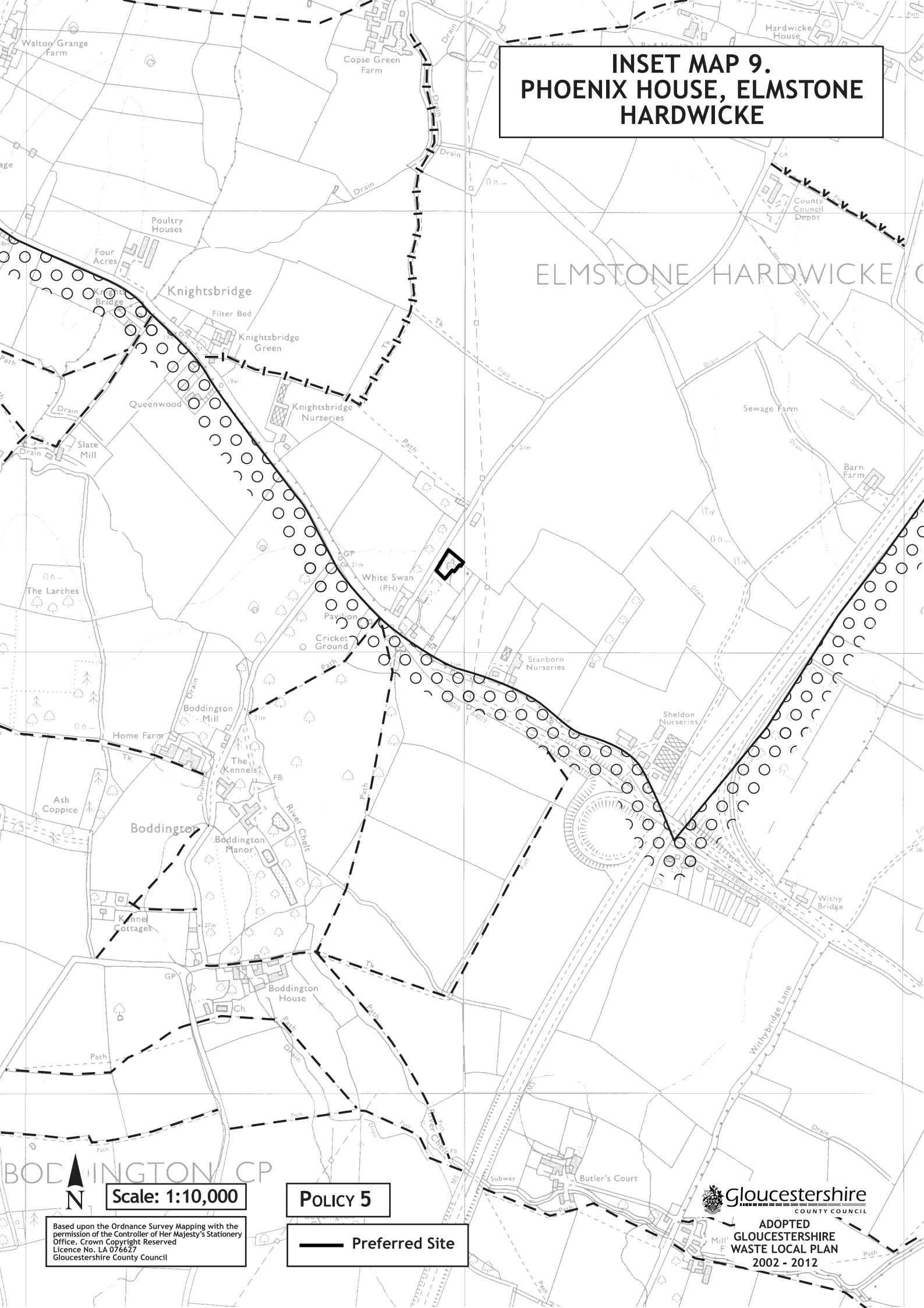
ADOPTED GLOUCESTERSHIRE WASTE LOCAL PLAN 2002 - 2012

SITE PROFILE

Site Name:	Moreton in Marsh, Cotswolds
Site No:	8
Site Area:	5.3 hectares (North) **District:** Cotswold District 4.5 hectares (South)
Location:	The preferred sites are located off Todenham Road to the north of Moreton in Marsh. The sites comprise land that was formerly part of an airfield, with the southern parcel now within the Fire Services College, and the northern parcel in agricultural/storage use. The southern site is bounded to the south west by an allocation of 'protected open space' in the Cotswold District Local Plan. The northern parcel is bounded by agricultural land.
Existing Operations:	There is a metal recycling facility, a sewage treatment works and operations for the recovery and recycling of inert waste in the vicinity of Moreton-in-Marsh.
Further Information and History:	For a Household Waste Recycling Site serving the local area the sites meet the requirements of Structure Plan Policy and the Proximity Principle. Any such site would need to be located and designed to minimise impact on the open countryside and dwellings, sited away from the residential properties and would need some form of lighting restriction. Some natural screening exists in and around the sites, but additional screening would be required. The majority of the sites appear either undeveloped or derelict although there is some evidence of the northern parcel being used for agricultural purposes.

Constraints

Access:	The access to both sites is via the Todenham Road. Whilst there are existing turns for access and egress there may be a requirement to improve these for highway safety.
Environmental:	Lies within a Special Landscape Area Protection Policy on areas of nearby land Visible from AONB
Proximity to Dwellings:	A number of properties are located along Todenham Road. The nearest in both easterly and westerly directions being some 200m away. The Cotswold District Local Plan identifies the intervening area to the west as 'protected open space' whilst to the east are open fields.


INSET MAP 9.
PHOENIX HOUSE, ELMSTONE HARDWICKE
Walton Grange Farm
Copse Green Farm
Hardwicke House
Poultry Houses
Four Acres
Knightsbridge
Filter Bed
Knightsbridge Green
Queenwood
Knightsbridge Nurseries
Slate Mill
County Council Depot
ELMSTONE HARDWICKE
Sewage Farm
Barn Farm
White Swan (PH)
Pavilion
Cricket Ground
The Larches
Stanboro Nurseries
Sheldon Nurseries
Boddington Mill
Home Farm
The Kennels
Ash Coppice
Boddington
Boddington Manor
River Chelt
Kennel Cottages
Boddington House
Withybridge Gardens
Withy Bridge
Withybridge Lane
Butler's Court
Subway
BODDINGTON CP
N
Scale: 1:10,000
POLICY 5
Preferred Site
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Gloucestershire County Council
Gloucestershire
COUNTY COUNCIL
ADOPTED
GLOUCESTERSHIRE
WASTE LOCAL PLAN
2002 - 2012

SITE PROFILE

Site Name:	Phoenix House, Elmstone Hardwicke		
Site No:	9		
Site Area:	0.02 hectares	**District:**	Tewkesbury Borough
Location:	The site is on Stoke Road, off the A4019 Cheltenham to Tewkesbury road, near its junction with the M5 motorway. The surrounding land uses consist mainly of agricultural land.		
Existing Operations:	A Material Recovery Facility exists on the site.		
Further Information and History:	The site has an established waste management use, previously accommodating an incinerator, without adaptation for energy recovery, which mainly dealt with animal carcasses and animal wastes.		

Constraints

Access:	Access is via Stoke Road onto the A4019.
Environmental:	In close proximity to Green Belt. Visible from AONB.
Proximity to Dwellings:	A number of dwellings, a public house and a guesthouse lie within 500m of the site.

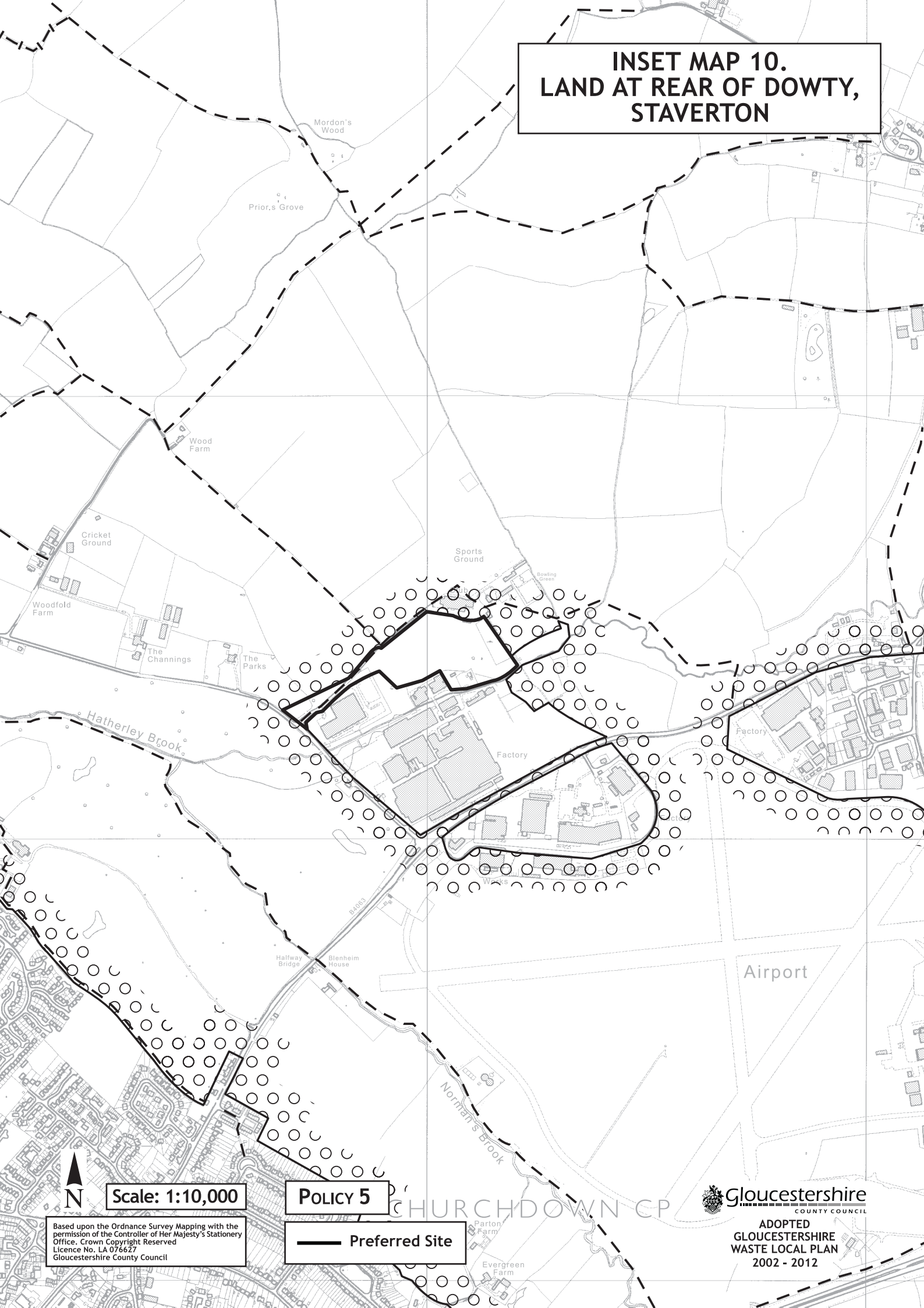
Site Specific Criteria for Development

Any application for waste management development should in addition to the General Criteria also address the following:

- A Traffic Assessment will be required to address the traffic generation of the proposed development and its impact on the local road network. Conditions may be imposed to limit traffic movements to no greater than they are at present.

- Where a Waste to Energy facility is proposed, applicants will need to outline the details of the energy recovery / and heating system proposed and should identify the envisaged energy clients.

INSET MAP 10.
LAND AT REAR OF DOWTY, STAVERTON



Gloucestershire COUNTY COUNCIL

ADOPTED GLOUCESTERSHIRE WASTE LOCAL PLAN 2002 - 2012

SITE PROFILE

Site Name:	Land Rear of Dowty, Staverton
Site No:	10
Site Area:	5 Hectares **District:** Tewkesbury Borough
Location:	Between Cheltenham and Gloucester. Approximately 2.4 miles by road from Junction 11 of the M5 Motorway, to the north of the B4063 and to the south west of Dowty Sports Ground.
Existing Operations:	A number of metal recycling facilities and a Materials Recovery Facility are nearby.
Further Information and History:	A site with established employment use. Midway between Gloucester and Cheltenham with a location that reduces travelling time or distances for bulk supply. Consultation with airport authorities would be required in relation to the proximity of the site to Staverton Airport. The site is allocated for housing in the Revised Deposit Tewkesbury Local Plan (2001).

Constraints

Access:	Existing site access is 375m to the north of the B4063 on the road to Down Hatherley. There is good access to junction 11 of the M5 via the B4063 and A40(T). Road improvements to the junction of the B4063 could be considered with restrictions against works traffic passing through Down Hatherley. Contributions may be required towards improvements/maintenance of the local network and M5 Junction depending on the intensity of the proposed use.
Environmental:	Adjacent land within Green Belt.
Proximity to Dwellings:	Single Dwelling approx 250m to Northwest.

Site Specific Criteria for Development

Any application for waste management development should in addition to the General Criteria also address the following:

- Whilst there is no known archaeological site, the site is in a locality where prehistoric and Roman activity may be expected. An archaeological evaluation would be required in order to assess the impact any development proposal may have.
- If the housing allocation is upheld within the Tewkesbury Borough Local Plan, the only waste management option set out in Schedule 2 which is considered to have potential at this site is a Household Waste Recycling Centre.
- The route of public footpath EDH 10/A.
- The site has a good environmental standard that will require enclosed facilities and a high standard of control of noise, dust and other potential pollutants.
- The site access requires substantial improvement. A Transport Assessment will be required.
- Where a Waste to Energy facility is proposed, applicants will need to outline the details of the energy recovery / and heating system proposed and should identify the envisaged energy clients.

INSET MAP 11.
RAILWAY TRIANGLE SITE, GLOUCESTER

N

Scale: 1:10,000

POLICY 5

Preferred Site

Gloucestershire COUNTY COUNCIL

ADOPTED GLOUCESTERSHIRE WASTE LOCAL PLAN 2002 - 2012

SITE PROFILE

Site Name: Railway Triangle Site, Gloucester

Site No: 11

Site Area: 7.7 Hectares **District:** Gloucester City

Location: At Barnwood Junction to the north of Metz Way, Gloucester. Formerly in uses associated with a major railway centre, the site is now mainly derelict land with various redundant railway buildings. The site is in close proximity to Gloucester with good links to Cheltenham, Tewkesbury, Stroud and Cirencester.

Existing Operations: There are several transfer stations in close proximity dealing with special, and household wastes. Also a number of metal recycling facilities.

Further Information and History: The land is designated for employment uses in the District Local Plan. It is capable of having good road access subject to new junction at Metz Way. Consideration of individual proposals for waste management development on the Railway Triangle will need to be carefully considered against the longer-term pattern of waste management for the Central Severn Vale and the particular aspirations of Gloucester City Council's Local Plan for this set of Key Sites.

Constraints

Access: Existing access by road is currently from Blinkhorns Bridge Lane. A new access would be required from Metz Way. From there is good access to the M5 motorway junctions via Eastern Avenue and the A417 and the A40 to Junction 11a and A38 to Junction 12. The opportunity exists to integrate waste management facilities with the rail network.

Environmental Within close proximity to a Landscape Conservation Area.

Proximity to Dwellings: There are areas of housing to the north and northeast of the site and the Gloucester Royal Hospital is situated to the northwest.

Site Specific Criteria for Development

Any application for waste management development should in addition to the General Criteria also address the following:

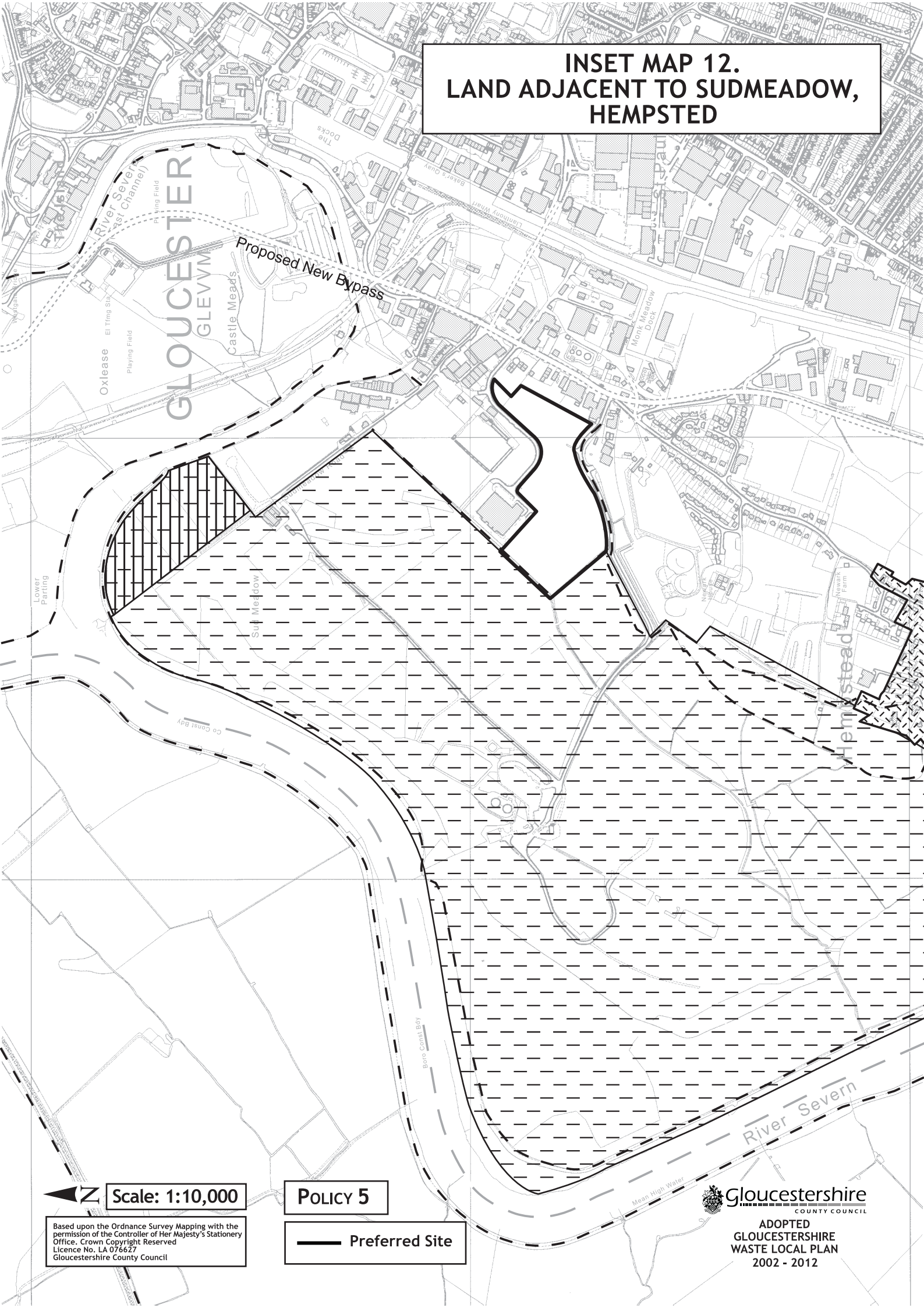
- A Transport Assessment will be required to address the traffic generation of the proposed development and its impact on the local road network. Access to the site would only be acceptable with the formation of a satisfactory access from Metz Way to an appropriate standard to facilitate development on both sides of Metz Way. The preferred access arrangement is a left in/out arrangement on both sides of Metz Way.

- The site is located within an area of interest for its industrial history. In addition it is located within the landscape surrounding Gloucester's Roman Town where associated activity may be present. Archaeological evaluation would be required to determine the impact any development would have.

- The site is located in a 'gateway' to the City and is prominent to public view. Waste development will need to ensure that key views of the Cathedral are not prejudiced and to be of a standard that will not discourage other employment uses on the site.

- Where a Waste to Energy facility is proposed, applicants will need to outline the details of the energy recovery / and heating system proposed and should identify the envisaged energy clients.

INSET MAP 12.
LAND ADJACENT TO SUDMEADOW, HEMPSTED



Scale: 1:10,000

POLICY 5

Preferred Site

Gloucestershire COUNTY COUNCIL

ADOPTED
GLOUCESTERSHIRE
WASTE LOCAL PLAN
2002 - 2012

SITE PROFILE

Site Name:	Land Adjacent to Sudmeadow, Hempsted.		
Site No:	12		
Site Area:	6.5 Hectares	**District:**	Gloucester City
Location:	The site is situated on the western edge of Gloucester, off Hempsted Lane. Industrial and commercial development and Sudmeadow (Site 7) bound the site.		
Existing Operations:	Landfill with energy recovery, composting, recovery and recycling of inert material and a Household waste recycling centre all exist adjacent to the site. Transfer stations, Materials Recovery Facilities, and metal recycling facilities are in close proximity.		
Further Information and History:	The site is adjacent to a well-established waste management facility. It lies in very close proximity to Gloucester and within reach of Cheltenham, Tewkesbury, Stroud and the Forest of Dean. By placing waste processing facilities closer to current waste management facilities there is a reduction in 'double handling' the waste and demonstrates better performance under the Proximity Principle. In addition these operations are labour intensive and could lead to greater employment opportunities. The area would be particularly well served if a facility were developed to transfer waste to and from Barges on the Gloucester to Sharpness Canal. The site meets the requirements of Structure Plan Policy and the Proximity Principle.		

Constraints

Access:	Road access to the site is poor as the main access to the area is from Hempsted Lane, which in itself is only accessible at present by passing over a canal bridge. There may be a possibility of gaining access from the new Gloucester South West by-pass when it is built, and contributions may be sought.
Environmental:	The site is adjacent to a Landscape Conservation Area. Within 1947 Flood Plain.
Proximity to Dwellings:	The residential area of Hempsted lies to the Southeast.

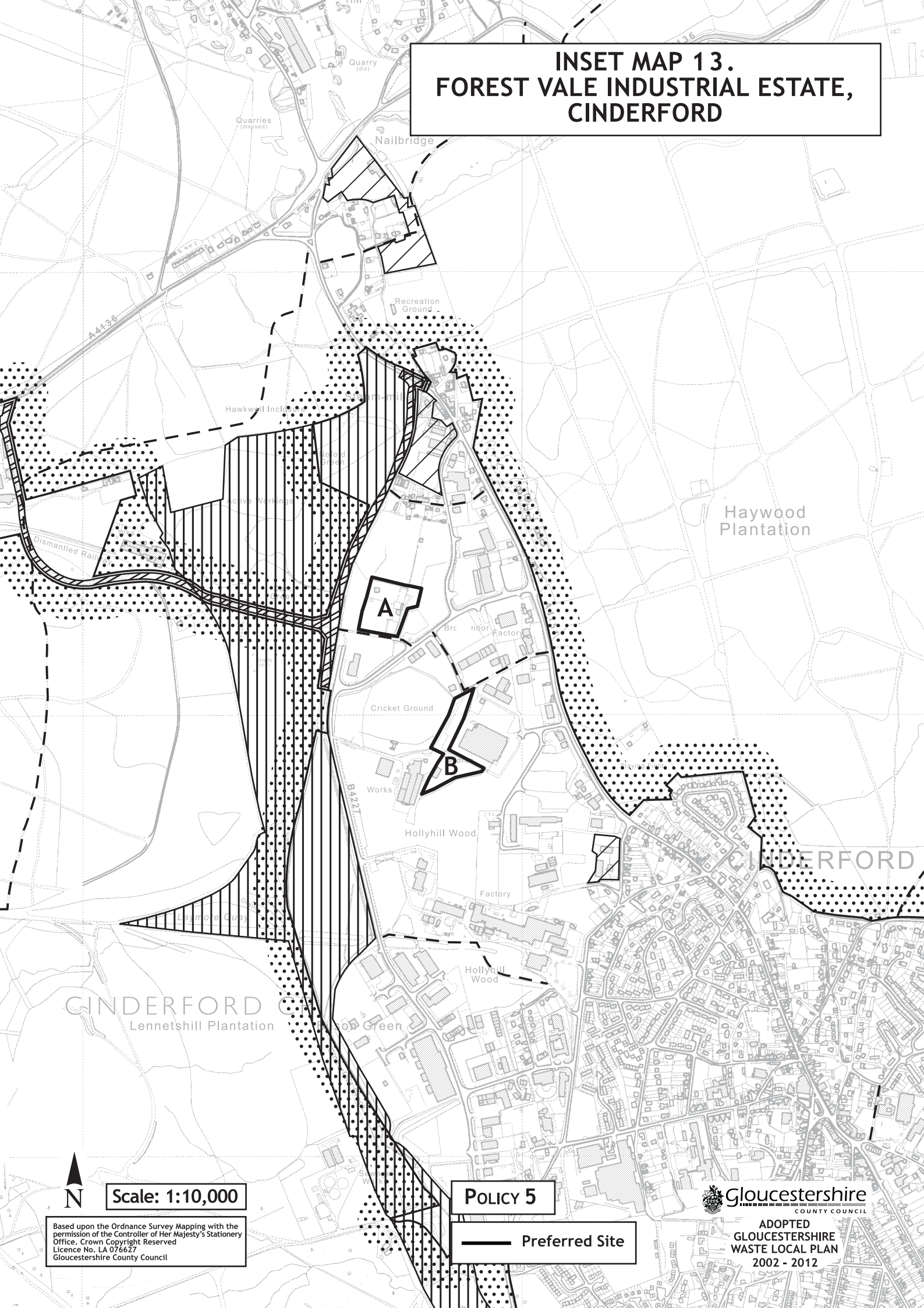
Site Specific Criteria for Development

Any application for waste management development should in addition to the General Criteria also address the following:

- The site adjoins the River Severn. The potential impact on watercourses should be assessed and, where appropriate, measures taken to prevent any pollution. A hydrogeological survey may be required. Measures should be taken to contain any pollution arising within the site, in accordance with the requirements of the Environment Agency.

- Where a Waste to Energy facility is proposed, applicants will need to outline the details of the energy recovery / and heating system proposed and should identify the envisaged energy clients.

INSET MAP 13.
FOREST VALE INDUSTRIAL ESTATE, CINDERFORD



Gloucestershire COUNTY COUNCIL

ADOPTED GLOUCESTERSHIRE WASTE LOCAL PLAN 2002 - 2012

SITE PROFILE

Site Name: Forest Vale Industrial Estate, Cinderford

Site No: 13

Site Area: Area A 1.2 hectares
Area B 1.2 hectares

District: Forest of Dean

Location: The Forest Vale Industrial Estate is to the north west of Cinderford within the urban fringe. This large industrial estate has two potentially suitable sites for the development of a waste management facility. The current mix of industries on the estate includes a brickworks and heavy engineering. To the west of the site is low-lying agricultural land, some residential properties to the north, and further industrial development to the south and east.

Existing Operations: There are a number of metal recycling facilities in the vicinity and also a liquid waste treatment plant.

Further Information and History: The sites within the industrial estate could accommodate a number of different types and scale of operations. The sites are allocated in the Forest of Dean District Local Plan for industrial development. Some parts of the industrial estate is low lying and there may be hydrological implications. The central location of Cinderford within the Forest of Dean means that a facility here could serve the rest of the District. The site therefore meets the requirements of Structure Plan Policy and the Proximity Principle.

Constraints

Access: The main access to the site is by road, the A4151, which links to the wider transportation network. Existing road infrastructure on the industrial estate because of its nature is currently utilised by HGVs and associated traffic. Adjacent land to the west side of the site is safeguarded for highway construction.

Environmental: Flooding may affect some areas.
In close proximity to a Special Landscape Area and Key Wildlife Site.

Proximity to Dwellings: A small group of houses lie immediately adjacent to one of the sites.
Land nearby is allocated for residential development.

Site Specific Criteria for Development

Any application for waste management development should in addition to the General Criteria also address the following:

- The site adjoins Laymore Quay. The potential impact on watercourses should be assessed and, where appropriate, measures taken to prevent any pollution. A hydrogeological survey may be required. Measures should be taken to contain any pollution arising within the site, in accordance with the requirements of the Environment Agency.

- A Transport Assessment will be required to address the traffic generation of any proposed development and its impact on the local road network. Financial contributions may be sought towards the extension of the Forest Vale Industrial Estate spine road and improvements to Cinderford Bridge as part of any expansion in this area. There would be a need for traffic to avoid Newtown Lane.

- The sites lie within an area of former coal mining. Depending on the precise location of any proposed development, an archaeological evaluation may be necessary in order to identify the impact of the development.

- To preserve a good environmental standard on the industrial estate, operations should take place within a building and screening should be considered in appropriate locations.

- Where a Waste to Energy facility is proposed, applicants will need to outline the details of the energy recovery / and heating system proposed and should identify the envisaged energy clients.

- Incineration is not considered to be appropriate at this site.

INSET MAP 14. CANAL WORKS, LYDNEY

N

Scale: 1:10,000

POLICY 5

Preferred Site

Gloucestershire COUNTY COUNCIL

ADOPTED GLOUCESTERSHIRE WASTE LOCAL PLAN 2002 - 2012

SITE PROFILE

Site Name: Canal Works, Lydney

Site No: 14

Site Area: 1.0 hectare **District:** Forest of Dean District

Location: The site is in the south of the Forest of Dean close to the River Severn near Lydney. It is adjacent to the Harbour Road Industrial Estate.

Existing Operations: The site is used by Bendalls of Lydney as a combined metals recycling facility and waste transfer station. An inert landraise operation exists on land adjacent to the site.

Further Information and History: The Canals Works site was formerly an inert landfill. Harbour Road Industrial Estate is allocated for employment uses in the Forest of Dean District Local Plan. The site's proximity to the River Severn may lend itself to consideration of water borne transportation (subject to regeneration / redevelopment proposals for the docks).

Constraints

Access: The main access to the area is via Harbour Road from the A48. The preferred route for long distance lorry traffic in the area runs along Harbour Road, connecting with the site entrance. There is also access to the main rail network close by. An area of land to the north-west of the site is safeguarded for highway construction.

Environmental The site lies adjacent to the Severn Estuary SSSI which is also designated as a Ramsar Site (Wetland of International Importance) and Special Protection Area (SPA). The same area is also under consideration for designation as a Special Area of Conservation (SAC).

There is a need to ensure that the special features of these designations are safeguarded from any potential impacts of the development of a waste facility in this location. Of particular concern would be the potential effects of emissions, effluent, noise disturbance and visual disturbance a waste facility at this location (and any associated transport activity) would have on habitats and species for which the site has been designated.

The existing SPA designation means that the Severn Estuary is a European Site as defined by the Conservation (of Natural Habitats & c) Regulations 1994 and reference must therefore be made to the requirements of these Regulations in considering development proposals and any related development of the water borne transport infrastructure.

Proximity to Dwellings: A small group of dwellings lies approx 575m from the site boundary. Land north of the site allocated for Residential Development.

Site Specific Criteria for Development

Any application for waste management development should in addition to the General Criteria also address the following:

- The site adjoins Lydney Harbour and is in close proximity to the River Severn. The potential impact on the watercourses should be assessed and, where appropriate, measures taken to prevent any pollution. A hydrogeological survey may be required. Measures should be taken to

contain any pollution arising within the site, in accordance with the requirements of the Environment Agency.

- The site lies within an area of Roman Land Reclamation and medieval field systems. An archaeological evaluation may be required.

INSET MAP 15.
LYDNEY INDUSTRIAL ESTATE, LYDNEY

Gloucestershire COUNTY COUNCIL

ADOPTED
GLOUCESTERSHIRE
WASTE LOCAL PLAN
2002 - 2012

SITE PROFILE

Site Name: Lydney Industrial Estate, Sites A, B and C, Lydney

Site No: 15

Site Area: Area A 16.75 hectares
Area B 2.15 hectares
Area C 22 hectares

District: Forest of Dean District

Location: These sites are within an industrial area on the urban fringe of Lydney, in the south of the Forest of Dean. They are largely sites that have been allocated as employment land in the Forest of Dean District Local Plan and represent a considerable expansion of Lydney's Industrial Estates (Harbour Road Industrial Estate and Mead Lane Industrial Estate).

Existing Operations: An inert landraising operation exists on Area A. Area B is undeveloped agricultural land on the periphery of the Mead Lane Industrial Estate. Area C is at Harbour Road Industrial Estate.

Further Information and History: Areas A, B and C are located in the vicinity of existing metals recycling facilities. The sites are in close proximity to Lydney and have good road access links. The sites meet the requirements of the Adopted Structure Plan.

Constraints

Access: Via newly constructed roads from the A48. The preferred route for long distance lorry traffic runs along the road adjacent to the industrial estate. There is potential access to the main railway line as a station currently operates within the industrial area. An area of land to the north of the sites is safeguarded for highway construction.

Environmental: Flood Plain (may be Environment Agency requirement to maintain for flood capacity)

High visual impact on the setting of Lydney Park Estate.

The sites lie adjacent to the Severn Estuary SSSI, which is also designated as a Ramsar Site (Wetland of International Importance) and Special Protection Area (SPA). The same area is also under consideration for designation as a Special Area of Conservation (SAC).

There is a need to ensure that the special features of these designations are safeguarded from any potential impacts of the development of a waste facility in this location. Of particular concern would be the potential effects of emissions, effluent, noise disturbance and visual disturbance a waste facility at this location (and any associated transport activity) would have on habitats and species for which the site has been designated.

The existing SPA designation means that the Severn Estuary is a European Site as defined by the Conservation (of Natural Habitats &c) Regulations 1994 and reference must therefore be made to the requirements of these Regulations in considering development proposals and any related development of the water borne transport infrastructure.

Proximity to Dwellings: Several small groups of houses lie within the industrial estate.
Land north-east of the sites is allocated for residential development.

Site Specific Criteria for Development

Any application for waste management development in addition to the General Criteria should also address the following:

- The site adjoins Lydney Harbour and is in close proximity to the River Severn. The potential impact on the watercourses should be assessed and, where appropriate, measures taken to prevent any pollution. A hydrogeological survey may be required. Measures should be taken to contain any pollution arising within the site, in accordance with the requirements of the Environment Agency.

- Direct access to site B from either the by-pass or A48) would be precluded. The site should be served by an extension to the existing adopted highway.

- Evidence of Roman land reclamation and medieval field systems are found in this area. Depending on the precise location and extent of development proposals, archaeological evaluation may be needed in order to identify the impact of any development.

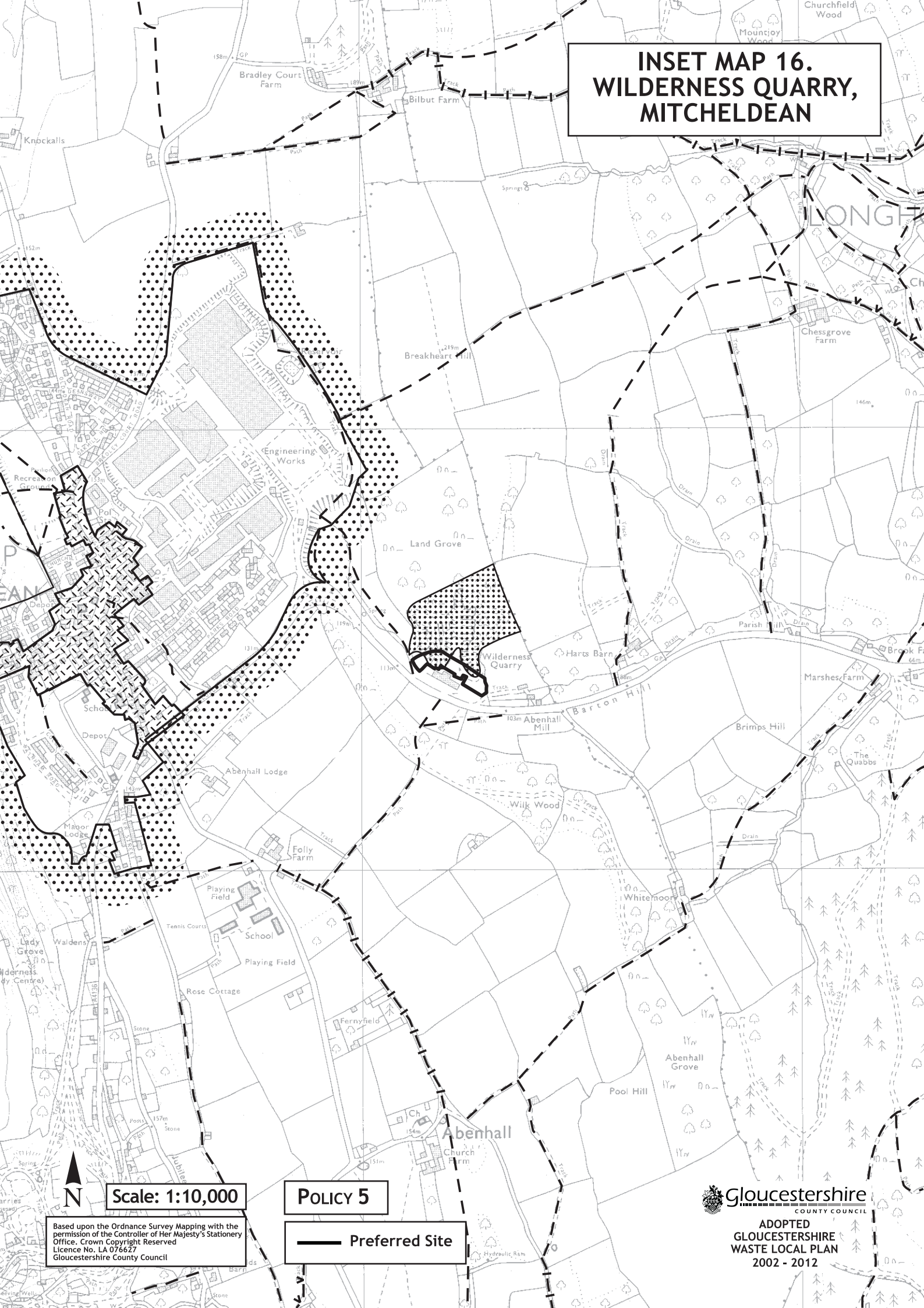
- Unless flood prevention and compensation measures can be undertaken as part of the waste or other development of Area A, some parts of the area will not be able to be used. Attention is drawn to the Forest of Dean District Local Plan Policies.

- Area B is part of an important approach to the town of Lydney. Industrial development is expected to enhance the image of the town through a high standard of design, construction and landscaping. Waste management facilities, including operational areas, should be enclosed within buildings and will be expected to be sympathetic to surrounding development. Attention is drawn to the Forest of Dean District Local Plan Policies.

- Some waste management options will not be appropriate to some areas.

- Where a Waste to Energy facility is proposed, applicants will need to outline the details of the energy recovery / and heating system proposed and should identify the envisaged energy clients.

INSET MAP 16. WILDERNESS QUARRY, MITCHELDEAN



Gloucestershire COUNTY COUNCIL

ADOPTED
GLOUCESTERSHIRE
WASTE LOCAL PLAN
2002 - 2012

SITE PROFILE

Site Name:	Wilderness Quarry, Mitcheldean		
Site No:	16		
Site Area:	0.5 hectare	**District:**	Forest of Dean
Location:	The site is at the foot of a steep south facing slope, on a flattened area created by Wilderness Quarry, which is situated on the eastern periphery of Mitcheldean. Mitcheldean is approximately 5km to the north of Cinderford. Several residential properties lie in close proximity to the south east. To the west of the site is Vantage Point Business Village.		
Existing Operations:	A licensed waste transfer station, which includes inert recovery and recycling, metals recycling and materials recovery, operates from the site. Existing business units and the quarry, worked principally for building stone (Devonian Old Red Sandstone), adjoin the site. Due to the existing operations, scope for a new facility on the site is limited, without some reorganisation.		
Further Information and History:	The site has planning permission for the use of land for recycling, reclamation storage, distribution and transfer of waste material and products to include putresible waste. The planning consent applies to an area of 0.3 hectares.The quarry, which is worked northwards into Breakheart Hill, has been worked for over a century. Under the Environment Act 1995, Review of Mineral Planning Permissions the quarry is subject to a 2042 time limit unless otherwise agreed in writing by the Mineral Planning Authority (mineral review Application DF1270/1/G).		

Constraints

Access:	The site has a shared access with a complex of small factory units, known as Ladygrove Business Park, onto the A4136 between Mitcheldean and Longhope.
Environmental:	Wilderness Quarry includes a Geological Site of Special Scientific Interest (Landgrove Quarry SSSI), which is also a Regionally Important Geological and Geomorphological Site (RIGs). To the north lies designated ancient woodland that is identified as Land Grove Key Wildlife Site. The site and the surroundings are in a Special Landscape Area designated within the Adopted Forest of Dean Local Plan.
Proximity to Dwellings:	A small group of houses lie to the south east. The site is approximately 350m from the built up area.

Site Specific Criteria for Development

Any application for waste management development should in addition to the General Criteria also address the following:

- Landgrove Quarry SSSI, within the quarry, should be safeguarded from any potential adverse impacts from a waste management facility. Any waste development will need to ensure that rock faces are left open so that visual or actual access to the SSSI is not impeded.

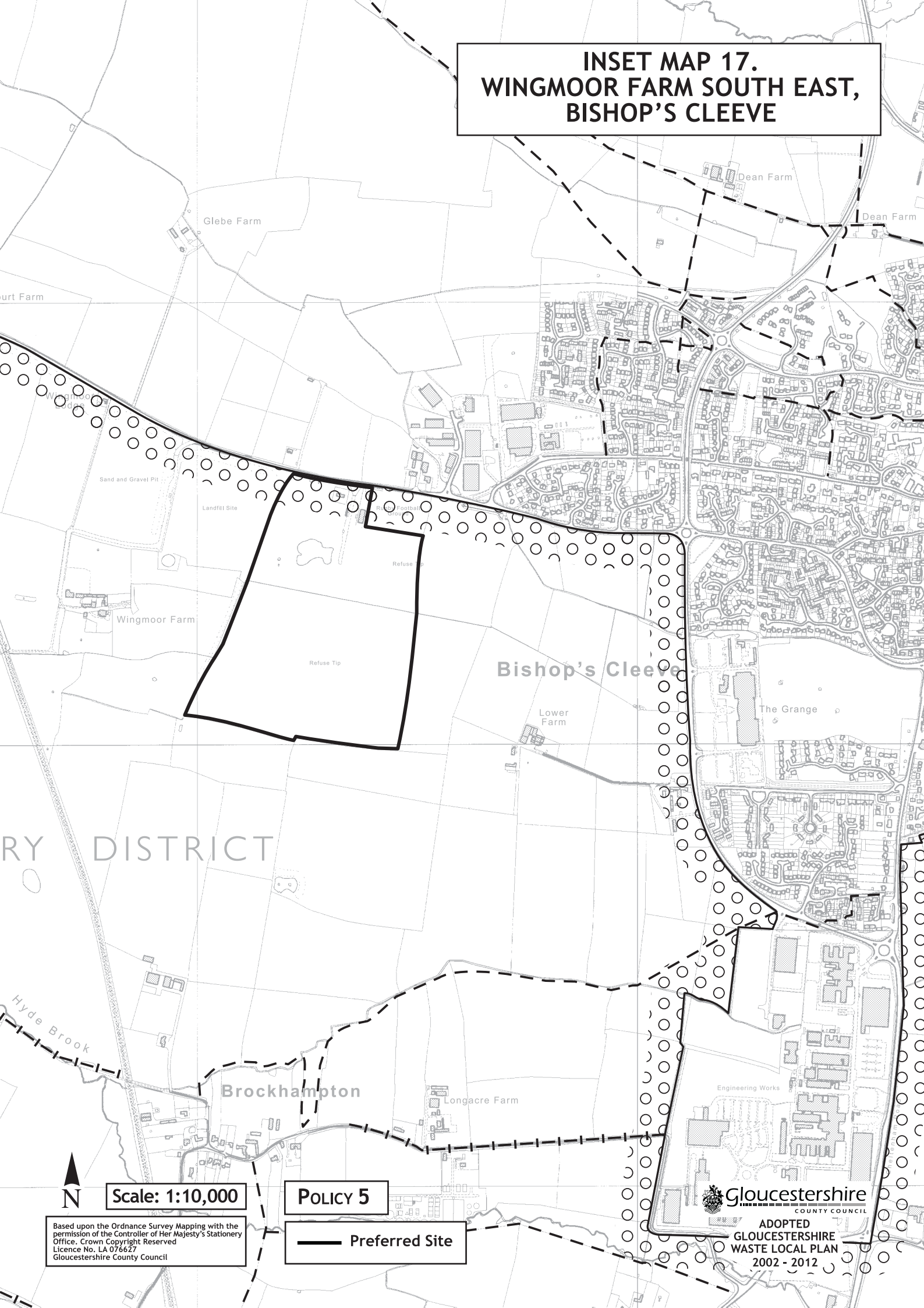
- A Transport Assessment will be required to address the traffic generation of any proposed development and its impact on the local road network.

- Proposals should be carefully designed in order to safeguard protected areas of landscape, nature, geological and geomorphological value.

- Incineration is not considered to be appropriate at this site.

- Where a Waste to Energy facility is proposed, applicants will need to outline the details of the energy recovery / and heating system proposed and should identify the envisaged energy clients.

INSET MAP 17.
WINGMOOR FARM SOUTH EAST, BISHOP'S CLEEVE



Gloucestershire COUNTY COUNCIL

ADOPTED GLOUCESTERSHIRE WASTE LOCAL PLAN 2002 - 2012

SITE PROFILE

Site Name: Wingmoor Farm South East, Bishop's Cleeve

Site No: 17

Site Area: 22.3 hectares **District:** Tewkesbury Borough

Location: The site is situated to the west of the residential area of Bishop's Cleeve and south east of the residential area of Stoke Orchard. The site's west boundary borders with the Wingmoor Farm East Site (Site 2). The surrounding land uses consist mainly of agricultural land and other waste management facilities. The site also lies within the Green Belt defined in the District Local Plan.

Existing Operations: The site is used for the landfill/landraise of inert builders and commercial waste. Further landfill sites and a Waste Transfer Station are in close proximity.

Further Information and History: The site is a well-established waste management facility. It lies almost in the centre of the County, in close proximity to Cheltenham and Bishop's Cleeve and with access to both Tewkesbury and Gloucester.

Constraints

Access: Main access to the site by road is from Stoke Road from the A435 to the east. Stoke Road to the west is restricted to vehicles passing through of less than 17 tonnes.

Environmental: Within Green Belt.
Visible from AONB.

Proximity to Dwellings: A farm lies off the south west of the site. Settlements of Bishop's Cleeve and Gotherington nearby to the north-east, Brockhampton, Stoke Orchard and other small settlements around the south and west of the site.

Site Specific Criteria for Development

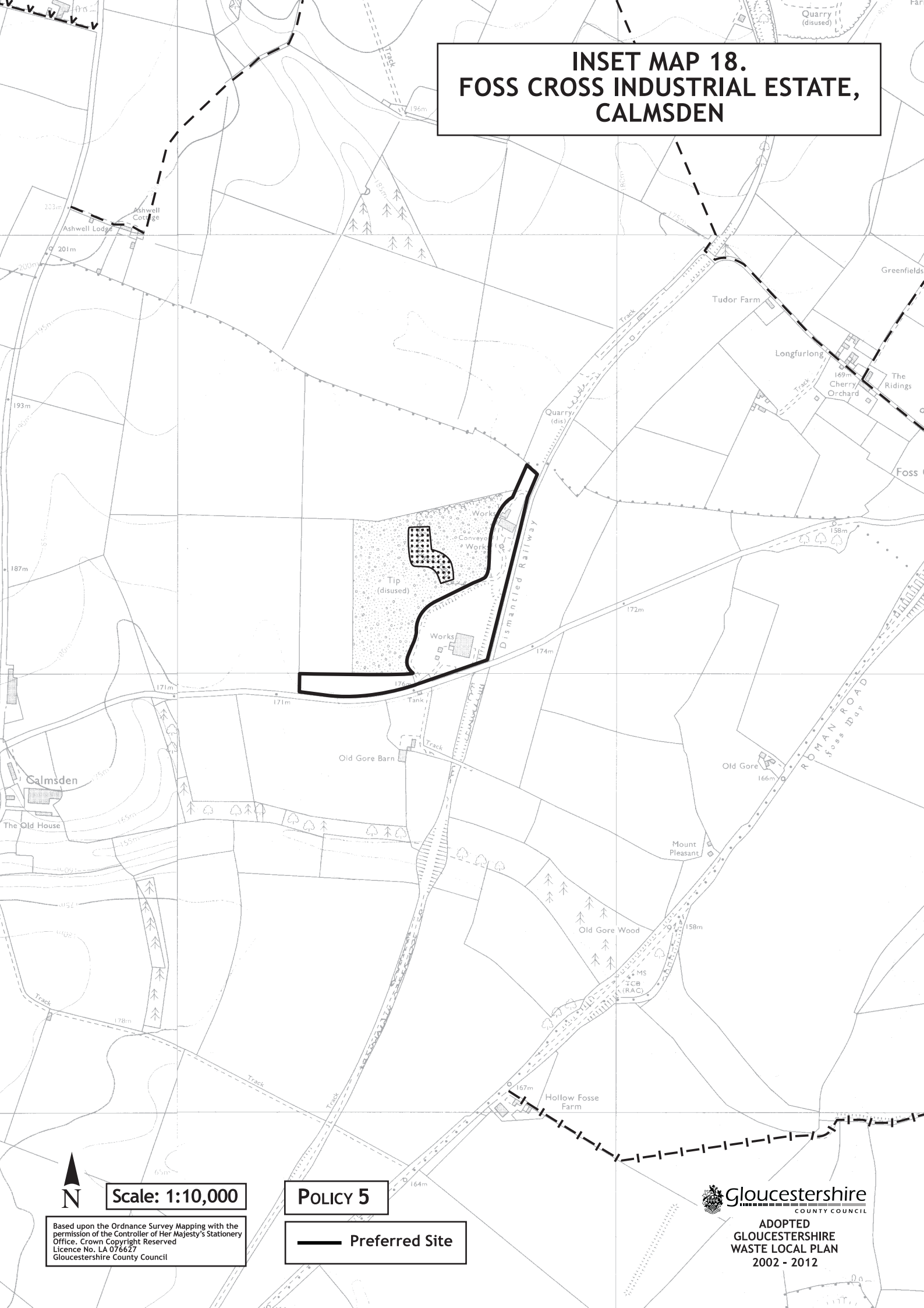
Any application for waste management development in addition to the General Criteria should also address the following:

- New waste management facilities should be designed, and if necessary contained, to ensure that dust, odour, fumes, noise, litter and other effects do not have a materially adverse impact on nearby residents and businesses.

- Stoke Road requires improvement from the site to its junction with the A435 to make it more suitable for use by heavy lorries. Improvements are needed to Stoke Road to make it safer for pedestrians and cyclists from the A435 up to, and including, Stoke Orchard village. A Transport Assessment for any application for planning permission will be sought in accordance with Policy 39 assessing routes to connect with the M5, Cheltenham, Gloucester and Tewkesbury.

- The Green Belt status of the site may require demountable buildings to be provided and their use limited to the duration of the landfill/landraise operations.

INSET MAP 18.
FOSS CROSS INDUSTRIAL ESTATE, CALMSDEN



N

Scale: 1:10,000

POLICY 5

Preferred Site

Gloucestershire COUNTY COUNCIL

ADOPTED GLOUCESTERSHIRE WASTE LOCAL PLAN 2002 - 2012

SITE PROFILE

Site Name:	Foss Cross Industrial Estate, Calmsden
Site No:	18
Site Area:	6.4 Hectares **District:** Cotswold District
Location:	This site is in the South East of the County, situated to the west of the A429 'Fosse Way' and east of the village of Calmsden.
Existing Operations:	A former landfill site, an agricultural depot and several other employment uses are located in and around the site, encircling an existing recycling depot.
Further Information and History:	The various employment and storage uses that are grouped within the site are relatively unobtrusive. This is a useful site for firms that are difficult to locate in towns or villages. Any facility would need to be located and designed to minimise impact on the surrounding area. Some natural screening exists in and around the site, but additional screening may be required, particularly along the road frontage and especially if new buildings are proposed.

Constraints

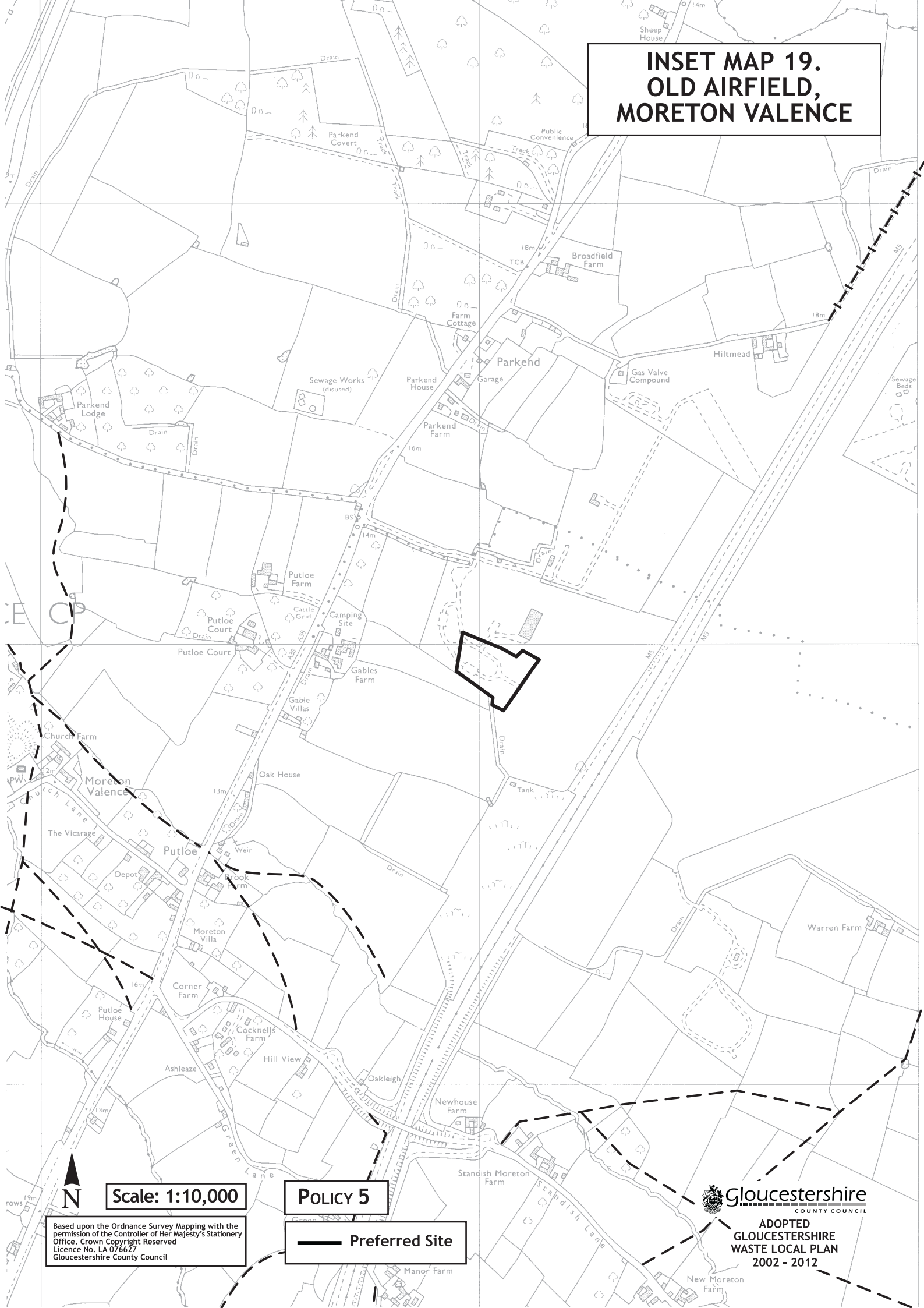
Access:	The main access to the site is via the road between the A429 and Calmsden.
Environmental:	Visible from AONB. The site is close to Foss Cross Quarry SSSI. There is a need to ensure that the special features of this designation are safeguarded from any potential impacts of the development of a waste facility at this location, in accordance with Policy 23 'Internationally and Nationally Designated Sites for Nature Conservation'.
Proximity to Dwellings:	A farm lies to the south of the site.

Site Specific Criteria for Development

Any application for waste management development in addition to the General Criteria should also address the following:

- The Environment Agency would require detailed site investigations to be carried out before any development commences in the interests of protecting the groundwater.

INSET MAP 19. OLD AIRFIELD, MORETON VALENCE



SITE PROFILE

Site Name:	Old Airfield, Moreton Valence
Site No:	19
Site Area:	2 Hectares **District:** Stroud District
Location:	Moreton Valence is located approximately 8 km south of Gloucester city centre between the A38 and the M5 motorway (to the east) at Moreton Valence. The site is within the Old Airfield, comprising part of Gables Farm. The site is located to the rear of an existing industrial area, which accommodates a variety of small businesses, and light industry.
Existing Operations:	Transfer station/material recycling facility for bulk soil, concrete, bricks, construction and demolition waste, and timber. It also handles limited quantities of cement bonded asbestos.
Further Information and History	Planning permission was granted on the 17 May 2000 for a recycling transfer station on the site and shall commence 5 years from this date. The station primarily deals with bulk soil, concrete and brick and other industrial and commercial non-special materials. In 2003 the WPA approved applications at the site for limited asbestos handling and storage of primary aggregates.

Constraints

Access:	Access to the site will be from the A38, along the existing track serving the industrial uses and a concrete road laid in the airfield days.
Environmental:	Visible from AONB.
Proximity to Dwellings:	There are three residential properties and a caravan campsite associated with Gables Farm, located to the west of the site. Gables Farm lies some 350 metres from the site. A second residential property, Old Airfield Farm, lies some 320 metres to the north west of the site. The third property is located opposite the site access onto the A38 on the opposite side of the A38, some 400 metres from the site.

INSET MAP 20.
LAND ADJACENT TO GASWORKS, BRISTOL ROAD, GLOUCESTER

N

Scale: 1:10,000

POLICY 5

Preferred Site

Gloucestershire COUNTY COUNCIL

ADOPTED GLOUCESTERSHIRE WASTE LOCAL PLAN 2002 - 2012

SITE PROFILE

Site Name:	Site Adjacent to Gasworks, Bristol Road, Gloucester
Site No:	20
Site Area:	3.4 Hectares **District:** Gloucester City
Location:	Situated towards the Quedgeley end of the Bristol road, the site lies adjacent to a gas works. The residential area of Podsmead lies to the east of the site. Surrounding land-use's consisting of both light and heavy industries, with a playing field backing onto the site.
Existing Operations:	Brownfield site.
Further Information and History	The area is well established for industrial use, with there being many heavy and light industries along this stretch of road. The site is within good proximity to a current waste management facility in the form of Sudmeadow, Hempsted. The site has planning permission for industrial use. The site meets the requirements of Structure Plan Policy and the Proximity Principle.

Constraints

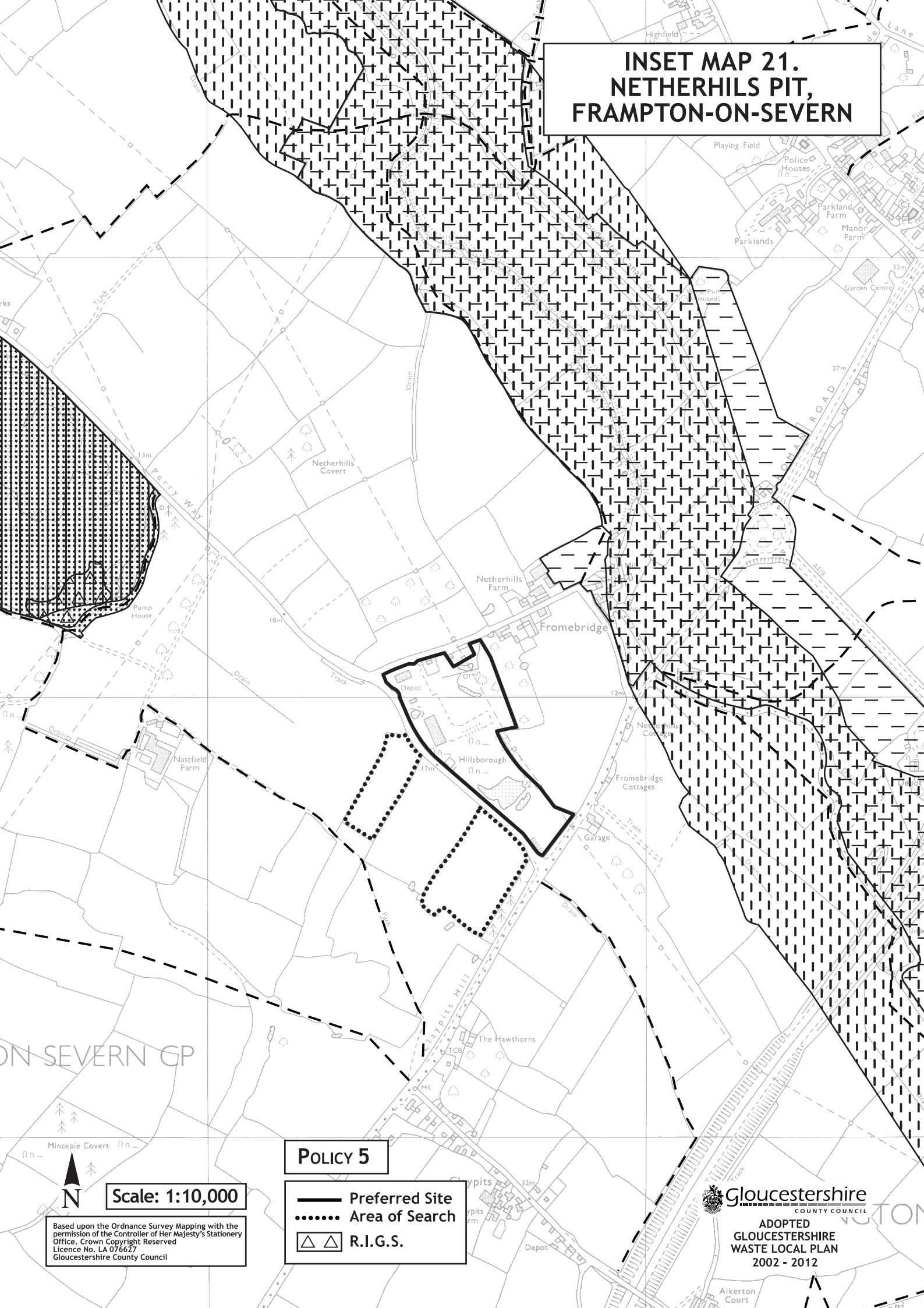
Access:	Main access to the area by road is directly off the Bristol Road, which has direct access to the primary road network in the form of the A38. This gives access to the primary road network and to all areas of the county. The Bristol Road currently has large volumes of traffic using it, which may make access to the site difficult at times. The original planning permission required the creation of a 'traffic signalled' junction at the point of access with Bristol Road. The site may only be suitable for use after the construction of the South West By-pass, depending on the type and intensity of the use.
Environmental:	There may be contamination issues for which remediation could be required prior to development.
Proximity to Dwellings:	Adjacent to housing and a school.

Site Specific Criteria for Development

Any application for waste management development in addition to the General Criteria should also address the following:

- Where a Waste to Energy facility is proposed, applicants will need to outline the details of the energy recovery / and heating system proposed and should identify the envisaged energy clients.

INSET MAP 21. NETHERHILS PIT, FRAMPTON-ON-SEVERN



POLICY 5

Preferred Site
Area of Search
R.I.G.S.

Scale: 1:10,000

N

Gloucestershire COUNTY COUNCIL

ADOPTED GLOUCESTERSHIRE WASTE LOCAL PLAN 2002 - 2012

SITE PROFILE

Site Name:	Netherhills Pit, Frampton-on Severn		
Site No:	21		
Site Area:	Northern land parcel 7.25 ha. Two southern land parcels approx. 6 ha.	**District:**	Stroud District
Location:	The site is situated adjacent to the B4071 near its junction with the A38 and consists of one parcel of land to the north and two parcels of land to the south of the B4071		
Existing Operations:	The site benefits from planning permission to extract sand and gravel. The land to the north has been excavated and 5.2 ha has been exhausted of minerals. It has been backfilled with inert material and developed into an industrial estate. The remaining 2.8 ha is unused.		
Further Information and History	Permission was granted by Gloucestershire County Council on 22nd June 1953 to extract sand and gravel from the three blocks of land. This permission included the tipping of waste material only where it was necessary to assist in the raising of the level of the ground, when only suitable inorganic material of an inoffensive character shall be used. An application for the determination of new conditions was received under the Environment Act 95 - Review of Mineral Planning Conditions. At present these conditions have still not been determined. During consultation of the new conditions it has been emphasised by Gloucestershire County Council's Landscape Officer that they would be opposed to landfilling of inert material at the site. The Environment Agency did not oppose the conditions as restoration to a low level with lakes was proposed and not backfilled with controlled waste. Frampton-on-Severn Parish Council also raises concern to landfilling.		

Constraints

Access:	The main access will be from the A38 on to the B4071 (Perry Way)**.** As stated new conditions are being determined and improvements to the access to the blocks of land will have to be made.
Environmental:	Adjoining land contains an archaeological prehistoric barrow cemetery. To the North West of the area there is the Frampton Pools SSSI, Key Wildlife Site and Regionally Important Geological & Geomorphological Site which need to be safeguarded in accordance with the relevant policies of this Plan. To the North East of the site runs a conservation area and Area of High Quality Landscape (Watercourse).
Proximity to Dwellings:	It is approximately 200 metres to the nearest dwellings.

Criteria for Development

Any application for waste management development in addition to the General Criteria should also address the following:

- A Transport Assessment will be required for a new facility in order to assess the potential impact of traffic congestion at Junction 13 of the M5.

CHAPTER FIVE: POLICIES

INTRODUCTION

5.0 The policies of the Waste Local Plan apply the objectives and guiding principles of the plan to provide a detailed framework for decision-making on planning proposals for waste development in Gloucestershire. The policies are split into the following categories:

- General Policies and Principles
- Facilities and Operations
- Environmental Constraints and Issues
- Development Considerations

5.1 The policies should always be read in conjunction with one another and with the reasoned justification. Reference should always be made to proposal maps where the policies are site specific. All development proposals will be considered against the policies and criteria contained within the Development Plan. The Statutory Development Plan for Gloucestershire consists of the Waste Local Plan, Minerals Local Plan, the Structure Plan and District Local Plans (see Figure 1.1 of Chapter 1). Appendix 2 lists the relevant District Local Plans. The policies contained in the most recently adopted Plan take precedence, should there be any conflict.

5.2 All policies of the Waste Local Plan should be read together, and the Development Plan should be read as a whole. Many policies may have relevance to a particular development proposal: it is for the decision making process to address the relevance of policies and the 'weight' given to them.

5.3 Planning legislation allows a degree of flexibility in Development Plan policy. However, exceptions to Development Plan policy may only be allowed under special circumstances and where these can be adequately justified.

5.4 The County Council is seeking to be pro-active in this Plan, by guiding and encouraging development where it should take place, as well as safeguarding areas which are judged to be inappropriate. Waste management facilities will be located and should operate on the basis that waste will be treated and disposed of using the Best Practicable Environmental Option for a particular waste stream. The Best Practicable Environmental Option will therefore form the overriding principle when considering proposals.

5.5 The policies of the Waste Local Plan are not just for the consideration of waste development but all developments that produce waste or cause waste to be produced, such as housing, employment, industrial/commercial and retail developments. To fully assess sustainable waste management, consideration of what happens to waste following treatment and storage may be appropriate, especially if the resulting materials are spread onto or in the land. Where materials are recovered following treatment then consideration of using those materials locally, is also relevant to consideration of Best Practicable Environmental Option.

GENERAL POLICIES AND PRINCIPLES

POLICY 1 – BEST PRACTICABLE ENVIRONMENTAL OPTION

PROPOSALS FOR WASTE DEVELOPMENT WILL BE PERMITTED ONLY WHERE IT IS SHOWN BY BEST PRACTICABLE ENVIRONMENTAL OPTION

ANALYSIS TO MAKE A POSITIVE CONTRIBUTION TO AN INTEGRATED AND SUSTAINABLE WASTE MANAGEMENT SYSTEM FOR GLOUCESTERSHIRE.

5.6 Best Practicable Environmental Option (BPEO) lies at the heart of the Gloucestershire Waste Local Plan. It reflects the Government's "Waste Strategy 2000" (Parts 1 & 2) and Policy WM.1 of the adopted Structure Plan and Policy SD.19 of the Third Alteration Structure Plan and is explained under the Guiding Principles in Chapter 2 of this Plan.

5.7 The County Council views the BPEO technique as a rational and objective means of identifying unsustainable waste management, as well as development that meets the aims of sustainable waste management. Consideration of BPEO will enable developers to consider what type of waste management facility is appropriate in different locations at the time a proposal is made.

5.8 It is a matter for the applicant to show BPEO in the first instance. The Waste Planning Authority will expect to see a number of criteria and systems considered as part of any proposal. Where waste development is materially harmful in terms of policy or environmental impact, the need for the development must be established to outweigh that harm and justify the development. However, establishment of need will not prejudice the achievements of the BPEO for new facilities. This is because the Plan takes forward the national strategy to achieve sustainable waste facilities. Because Gloucestershire adjoins 4 regions, the County is vulnerable to importing waste arisings from outside its own region. Although this is generally contrary to the principle of regional self-sufficiency it may be sustainable in certain circumstances. So, where a strategic or local facility involves imported waste, proposals will be carefully scrutinised to ensure that they are the BPEO for the facility and location in question.

5.9 To demonstrate sustainability the BPEO analysis must show that the proposed waste facility takes full account of the guiding principles of regional self-sufficiency, the proximity principle and the waste hierarchy. Such an analysis would include an assessment of future waste arisings for the facility proposed and its waste stream (i.e. 'need') and a comparison with other potentially suitable sites and facilities in the likely catchment area for the waste in question. This analysis will be required of all new sites and facilities although the amount of detail appropriate will depend on the size, type and location of the proposed facility (see paragraph 5.14 below). Preferred sites in Schedules 1 and 2 of the Plan have the advantage of having had some scrutiny during the local plan process but, as paragraph 4.14 of the Plan points out, that is not conclusive of development proposals being approved and applicants will be required to demonstrate that their proposals are the BPEO.

5.10 As part of any proposal, consideration of an Environmental Statement if required under the Environmental Impact Assessment Regulations 1999, life cycle analysis for the wastes handled, social and economic factors together with land use planning issues form the core criteria against which BPEO will be judged. It is not one single consideration but a combination of all of the above systems that form part of the BPEO study by the applicant.

5.11 The House of Lords Select Committee on the European Communities have endorsed the need for the application of the precautionary principle for incineration proposals because of the potentially harmful effects of incineration and the need for further

research[1]. The precautionary principle is defined within the National Waste Strategy as follows: where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation[2]. Therefore the consideration of the precautionary principle may form part of a BPEO assessment, particularly for incinerator proposals.

5.12 Table 5.1 indicates key criteria for assessment of BPEO, which applicants should take into account in their proposals. This list is not exhaustive and is only a guide for BPEO assessment.

Table 5.1 Key Criteria for the assessment of BPEO

Key Criteria	Detail
Environmental Statement	- As required by Environmental Impact Assessment Regulations 1999
Life Cycle Analysis	- Environment Agency "WISARD" project - Energy, resources and emissions during and after construction - Management of waste materials post treatment i.e. landspreading, local industry, transported
National Planning Guidance	- Waste Strategy 2000 - Planning Policy Guidance Notes, particularly 1, 10 and 23 - Proximity Principle Regional Self-Sufficiency - Waste Hierarchy
National Waste Strategy	- "Waste Strategy 2000" Policy and Targets - Precautionary Principle
Gloucestershire Waste Strategy	- Strategy published June 1997 - Contribution to the aim of integrated, sustainable waste management system in Gloucestershire
Gloucestershire Development Plan	- Structure Plan, Waste Local Plan, Minerals Local Plan and relevant District Local Plans
Other relevant plans and strategies for Gloucestershire	- Local Transport Plan, Biodiversity Action Plan, Economic Strategy
Strategy of Waste Local Plan (Chapter 2)	- Aim - Objectives - Guiding Principles - Geographic Statement
Targets in Waste Local Plan (Chapter 3)	- Contribution to targets for each Waste Stream
Policies of Waste Local Plan (Chapter 5)	- General Policies and Principles - Facilities and Operations - Environmental Constraints - Development Considerations
Need	- A waste management need must be satisfied be it that of the county, the region or the wider national community
Transport	- Mode of transport - Distance from origin and markets
Social and Economic Indicators	- Employment - direct and indirect - Accessibility - Contribution to education and awareness on waste in the local community - Associated investment projects

[1] Paragraphs 108 and 110, Select Committee on European Communities – Eleventh Report: Waste Incineration, House of Lords Paper 71, dated 15 June 1999. ISBN 0 10 4071990

[2] Waste Strategy 2000, DETR 2000. ISBN 0 10 146932 2 and the Rio Declaration on Environmental and Development, made at UNCED, 1992. ISBN 9 21 100509 4

5.13 Proposals for waste management facilities must demonstrate BPEO. However, the level of detail included in the assessment will depend upon the size and scale of the proposal. For example, a local composting facility is less likely to cause significant harm and serve only the local area. But a small-scale construction and demolition facility may cause a wider effect. The issue of need, however, is a relevant consideration at all levels.

POLICY 2 – REGIONAL SELF-SUFFICIENCY

PROPOSALS FOR WASTE DEVELOPMENT, WHICH ARE LIKELY TO INVOLVE TRANSPORTATION BEYOND THE COUNTY BOUNDARY WILL ONLY BE PERMITTED WHERE THEY ARE NECESSARY TO ACHIEVE REGIONAL SELF-SUFFICIENCY UNLESS THEY COMPRISE THE BPEO FOR THE WASTE STREAM.

5.14 The Proximity Principle should result in the majority of waste being dealt with locally within regions. At present some wastes are transported into, across and outside of the South West Region. The co-operation of neighbouring waste planning authorities will be sought to secure as much self-sufficiency as possible.

5.15 Gloucestershire has a difficult geographical location, as it is adjacent to three regions. However, it is vital to ensure that Gloucestershire continues to be responsible and self sufficient in dealing with the bulk of its own waste arisings. Certain wastes do require specialist facilities because of their special nature and the small volumes produced. Economic circumstances may dictate that these wastes are dealt with outside of the region. A potential problem is that high volume wastes may be imported into the Southwest Region when landfill becomes difficult in the three adjacent regions. This policy is intended to protect the Waste Management resources of this County and enable it to maintain a high level of self-sufficiency. Gloucestershire's location as the cornerstone for four regions makes it vulnerable. Regional self-sufficiency can ensure a responsible attitude towards waste management provision and the accommodation of the County's waste arisings.

POLICY 3 - PROXIMITY PRINCIPLE

AS A GENERAL PRINCIPLE WASTE SHOULD BE DEALT WITH AS NEAR AS IS PRACTICABLE TO THE PLACE WHERE IT IS GENERATED. THIS PRINCIPLE IS SUBJECT TO ENVIRONMENTAL, SOCIAL, ECONOMIC AND TRANSPORT CONSIDERATIONS, WHICH ARE APPROPRIATE TO THE WASTE MANAGEMENT FACILITIES AND PROCESSES BEING PROPOSED AND WHICH WOULD CONTRIBUTE TO THE ANALYSIS OF THE BPEO FOR THE FACILITY.

5.16 Consideration of the Proximity Principle includes the scale of a facility, the distance of the facility from the source of the waste and the mode of transport to and from the facility. Waste management should, where possible, be carried out close to the point of origin of the waste. However, there are also circumstances where waste will need to be transported over greater distances to, for example, a specialist waste treatment facility for processing. The method of transporting waste in each case should be taken into account when considering BPEO of any proposal. Such a policy should be applied flexibly where waste movement across the County boundary satisfies the proximity principle and meets the criteria of BPEO.

5.17 The proximity principle and the waste hierarchy will be considered as part of BPEO. Where the BPEO for a waste stream is towards the lower end of the waste hierarchy,

this can often be because the environmental impact, including that from transportation, to a distant reprocessing facility or market outweighs the environmental benefit of recovering the waste. The mode of transport as well as the distance should be considered; a longer journey by river or rail may be environmentally preferable to a shorter road journey.

FACILITIES AND OPERATIONS

5.18 This section provides the policy framework to consider sites that are needed to develop a sustainable waste management system for Gloucestershire. All locations will need to be considered in terms of the Best Practicable Environmental Option, as well as the criteria and policies of the Development Plan as a whole.

POLICY 4 - WASTE MANAGEMENT FACILITIES FOR STRATEGIC SITES

STRATEGIC WASTE MANAGEMENT FACILITIES, PROCESSING MORE THAN 50,000 TONNES PER ANNUM, ON SITES ILLUSTRATED IN SCHEDULE 1 OF THE PLAN, WILL BE PERMITTED WHERE IT CAN BE DEMONSTRATED:

- **THAT THE FACILITY IS ESSENTIAL TO SUPPORT SUSTAINABLE WASTE MANAGEMENT SUBJECT TO THE DEMONSTRATION OF BPEO FOR THAT WASTE STREAM; AND**
- **THAT THE FACILITY MEETS THE RELEVANT POLICIES AND CRITERIA OF THIS AND OTHER PARTS OF THE DEVELOPMENT PLAN.**

5.19 The types of waste management facilities that could be developed on the strategic sites are indicated in Chapter 4. These sites are considered capable of being developed for anaerobic digestion, composting, inert recovery, recycling, materials recovery, and waste to energy recovery etc. The capacity of one or a combination of these facilities would amount to a major waste management development.

5.20 The sites identified in Schedule 1 have the support of the Waste Planning Authority for development, in principle. But any proposal should meet the General Development Criteria and Site Specific Criteria set out in each site profile and will be subject to the criteria and policies of the Development Plan. Also an Environment Impact Assessment (EIA) will be required in accordance with the EIA Regulations 1999.

5.21 The application of the Best Practicable Environmental Option methodology is an important element of assessing sustainable waste management. Key criteria for BPEO is indicated in Table 5.1. Proposals should not undermine national planning policy guidance and the national waste strategy. In addition, the objectives, geographic statement and guiding principles set out in Chapter 2, and the policies of Chapter 5, provide key criteria which will be used to assess whether a development proposal is essential for securing a sustainable waste management system in Gloucestershire.

POLICY 5 – WASTE MANAGEMENT FACILITIES FOR LOCAL SITES

LOCAL WASTE MANAGEMENT FACILITIES, PROCESSING LESS THAN 50,000 TONNES PER ANNUM, ON SITES ILLUSTRATED IN SCHEDULE 2 OF THE PLAN WILL BE PERMITTED WHERE IT CAN BE DEMONSTRATED-

- **THAT THE FACILITY IS ESSENTIAL TO SUPPORT SUSTAINABLE WASTE MANAGEMENT SUBJECT TO THE DEMONSTRATION OF BPEO FOR THAT WASTE STREAM; AND**
- **THAT THE FACILITY MEETS THE RELEVANT POLICIES AND CRITERIA OF THIS AND OTHER PARTS OF THE DEVELOPMENT PLAN.**

5.22 The types of waste management facilities that could be developed on the sites are indicated in Chapter 4. These sites are considered capable of being developed for composting, household waste recycling centres, waste transfer stations and anaerobic digestion, inert recovery, recycling, scrapyards, materials recovery facilities and waste to energy recovery facilities. The capacity of one or a combination of these facilities should not exceed 50,000 tonnes per annum.

5.23 The sites identified in Schedule 2 have the support of the Waste Planning Authority for development, in principle, as appropriate 'local' waste management facilities. But any proposal should meet the General Development Criteria and Site Specific Criteria set out in each site profile and will be subject to the criteria and policies of the Development Plan. Also an Environment Impact Assessment (EIA) may be required in accordance with the EIA Regulations 1999.

5.24 The application of the Best Practicable Environmental Option methodology is an important element of assessing sustainable waste management. Key criteria for BPEO is indicated in Table 5.1. Proposals should not undermine national planning policy guidance and the national waste strategy. In addition, the objectives, geographic statement and guiding principles set out in Chapter 2, and the policies of Chapter 5, provide key criteria which will be used to assess whether a development proposal makes a significant contribution to a sustainable waste management system in Gloucestershire.

POLICY 6 - WASTE MANAGEMENT FACILITIES FOR OTHER SITES

PROPOSALS FOR THE DEVELOPMENT OF WASTE MANAGEMENT FACILITIES NOT INCLUDED IN SCHEDULES 1 AND 2 WILL BE PERMITTED WHERE IT IS DEMONSTRATED THAT:

- **THE FACILITY IS ESSENTIAL TO SUPPORT SUSTAINABLE WASTE MANAGEMENT SUBJECT TO THE DEMONSTRATION OF BPEO FOR THAT WASTE STREAM; AND**
- **THE FACILITY MEETS THE RELEVANT POLICIES AND CRITERIA OF THIS AND OTHER PARTS OF THE DEVELOPMENT PLAN.**

APPLICANTS FOR NEW FACILITIES WILL NEED TO DEMONSTRATE THAT THEIR PROPOSALS ARE LIKELY TO BE A BETTER OPTION THAN THOSE WASTE MANAGEMENT METHODS AND SITES IDENTIFIED IN SCHEDULES 1 AND 2.

5.25 Achievement of the best option requires a comparative test. Proposals for waste management facilities must demonstrate how they contribute to a sustainable waste management system for Gloucestershire. The application of the Best Practicable Environmental Option methodology is an important element of assessing sustainable waste management. Key criteria for BPEO is indicated in Table 5.1. Proposals should not undermine national planning policy guidance and the national waste strategy. In addition, the objectives, geographic statement and guiding principles set out in Chapter 2, and the policies of Chapter 5, provide key criteria, which will be used to assess whether a development proposal contributes to a sustainable waste management system in Gloucestershire.

5.26 Development for waste management facilities will normally only be acceptable within industrial sites where the associated impacts of the development can be accommodated. For the purposes of this Plan, 'industrial land' is land that is indicated by the Development Plan as being suitable for employment or industrial development, in particular land designated under the Use Classes Order for B2 (General Industrial) uses.

5.27 Sites that are on derelict, despoiled or brownfield land (defined as land previously affected by development, which have been abandoned and may be in a derelict condition) may be suitable where they are appropriately located. Development proposals may be associated with the remediation and 'clean up' of these sites.

5.28 The temporary use of land within some mineral workings and waste management sites may be acceptable for waste recovery facilities. Suitable mineral workings would have to have existing processing plants with a permanent planning permission or lawful use. Suitable waste sites would only be those that are permanent, are existing landfills where other waste management uses may be acceptable on a temporary basis for the life of the landfill, or are poorly restored landfill sites with no restoration conditions.

5.29 Mineral sites may be suitable for recycling aggregates. Existing waste sites may be suitable for the development of 'front-end' recycling, where it can be demonstrated that this use will not cause unacceptable environmental impacts, unsuitable traffic generation or unacceptable delays in site restoration. The appropriate after use of mineral workings will be assessed against the policies and proposals of the Minerals Local Plan, this Plan, and the Development Plan in its entirety.

5.30 The use of existing or redundant buildings and structures for waste management is to be encouraged, including redundant agricultural buildings and areas of hardstanding. In the appropriate locations, there may be both environmental and economic benefits. Proposals for such development will still need to meet the relevant criteria and policies of the Development Plan.

5.31 Sites, which have the opportunity to use more sustainable modes of transport, such as water and rail, may be considered as appropriate locations for waste management facilities. The Proximity Principle, with its two elements of distance and transport mode, must be taken into account along with the other criteria and policies of the Development Plan.

POLICY 7 - SAFEGUARDING SITES FOR WASTE MANAGEMENT FACILITIES

EXISTING SITES IN PERMANENT WASTE MANAGEMENT USE (INCLUDING SEWAGE AND WATER TREATMENT WORKS) AND PROPOSED SITES FOR WASTE MANAGEMENT USE WILL BE SAFEGUARDED BY LOCAL PLANNING AUTHORITIES, WHERE THEY MAKE A CONTRIBUTION TO A SUSTAINABLE WASTE MANAGEMENT SYSTEM IN ACCORDANCE WITH BPEO FOR GLOUCESTERSHIRE. THE WASTE PLANNING AUTHORITY WILL NORMALLY OPPOSE PROPOSALS FOR DEVELOPMENT WITHIN OR IN PROXIMITY TO THESE SITES WHERE THE PROPOSED DEVELOPMENT WOULD PREVENT OR PREJUDICE THE USE OF THE SITE FOR AN APPROPRIATE WASTE MANAGEMENT DEVELOPMENT.

5.32 Current sites (see Appendix 5) are part of the existing infrastructure that is delivering essential waste management services to Gloucestershire. Depending on individual

circumstances, such sites may have the potential to increase their capacity, or are able to diversify to provide additional waste services. As a relatively 'low value' land use, these sites are vulnerable to redevelopment for other permanent land uses. Therefore existing waste sites, in addition to those identified in Schedules 1 and 2, should also be safeguarded, as well as other proposed sites that may be considered appropriate. In safeguarding such sites the Waste Planning Authority's objective is to ensure proper consultation from, and consideration by, the determining local planning authority.

5.33 Planning Authorities in Gloucestershire, and adjacent District and County Council planning authorities will be required to consult the County Council on planning applications adjacent to existing facilities, on planning applications within 250 metres of a landfill site (this is consistent with the current General Development Procedure Order consultations with the Environment Agency on landfill gas risks), and on planning applications on or adjacent to proposed facilities. Through consultation on planning applications adjacent to proposed/existing sites the Waste Planning Authority will oppose conflicting land uses in order to reduce the potential risk for problems relating to amenity in the future. The Waste Planning Authority welcomes early pre-application discussions.

RECOVERY FACILITIES

5.34 The site related policies (4-7) are applicable to proposals for all types of waste management facilities. This section provides further policy guidance pertinent to the development of specific types of waste management facility that are currently available. The Waste Planning Authority recognises that new processes and facilities may become available during the life of this Plan. All proposals for development will be subject to the criteria and policies of the Development Plan.

5.35 The 'end use' of materials following recovery by any process, but particularly anaerobic digestion and composting, may form part of the consideration of any planning application. Waste materials recovered as part of these biological processes and then returned to the land may still be subject to the policies for agricultural improvement, landfill and landraising, and landspreading. Recovery operations should not provide an excuse for 'disposal by the back door'.

5.36 A general guide to the definition of 'treatment' is the fulfilment of these three criteria:

- It must be a physical/thermal/chemical or biological process;
- It must change the characteristics of the waste; and
- It must do so in order to:
  - reduce its volume, or
  - reduce its hazardous nature, or
  - facilitate its handling, or
  - enhance its recovery, or
  - make it viable for a new use.

POLICY 8 - ANAEROBIC DIGESTION

PROPOSALS FOR THE DEVELOPMENT OF ANAEROBIC DIGESTION PLANTS WHICH ENABLE THE BEST PRACTICAL USE OF THE BY-PRODUCTS FOR ENERGY RECOVERY AND SOIL IMPROVERS WILL BE PERMITTED IN APPROPRIATE LOCATIONS.

5.37 Appropriate locations for Anaerobic Digestion Plants will be considered under policies 4, 5 and 6 where they meet the criteria and policies of the Development Plan. The location, and degree to which a plant contributes to a sustainable waste management system, will depend on the scale and size of a proposed plant. Schedule 1 (Policy 4) identifies strategic sites and Schedule 2 (Policy 5) 'other' sites.

5.38 A proposed development will need to balance being situated close to the waste arisings, to minimise transport impacts, having to minimise impacts on local environment and amenity, and where possible being close to potential markets or users of the by-products. Integrating plants with existing waste management facilities would reduce the need for transporting and double handling of waste. The Waste Planning Authority will favour proposals for anaerobic digestion, which form an integral part of schemes for sewage treatment works, such as materials recovery facilities, and district heating schemes. Reed bed systems may merit consideration in appropriate circumstances.

POLICY 9 – COMPOSTING

PROPOSALS FOR THE DEVELOPMENT OF:

A. INDOOR COMPOSTING SCHEMES WILL BE PERMITTED IN APPROPRIATE LOCATIONS, AND MAY BE PERMITTED AS A RE-USE OF APPROPRIATE RURAL BUILDINGS OR AS PART OF AN INTEGRATED WASTE MANAGEMENT FACILITY.

B. COMPOSTING SCHEMES WHICH DO NOT REQUIRE NEW BUILDINGS OR STRUCTURES, WILL ONLY BE PERMITTED IN APPROPRIATE LOCATIONS WHERE THE SCALE OF THE OPERATION DOES NOT MATERIALLY CONFLICT WITH SURROUNDING LAND USES.

5.39 Appropriate locations for both methods of composting will be considered under policies 4, 5 and 6 where they meet the criteria and policies of the Development Plan. The location, and degree to which a plant contributes to a sustainable waste management system, will depend on the scale and size of a proposed plant. Schedule 1 (Policy 4) identifies strategic sites and Schedule 2 (Policy 5) 'other' sites.

5.40 Normal home composting does not require planning permission. Other composting operations, including both windrow and in-vessel methods, will require planning permission. Facilities can vary in scale. In considering appropriate locations, a number of factors will need to be taken into account; for example, consideration should be given to the end use of the compost and the proximity to the market or users. This is because the compost, depending on the wastes used, can vary in quality and is not always suitable for general use. The potential impacts of noise and odour will also need to be carefully considered to ensure that the operation does not materially conflict with surrounding land-use. It is likely that a noise assessment would be required where shredding machinery is used. All proposals will still be subject to the criteria and policies of the Development Plan.

5.41 For on-farm or on-site composting, locations may be considered appropriate where the compost is used on that site. For example, where the operation is part of an adjacent land reclamation and improvement scheme, the utilisation of an area of existing hardstanding or the re-use of existing buildings for these operations would be preferred. The Waste Planning Authority will take into consideration the potential for small scale composting operations to assist the diversification of farming units.

5.42 Appropriate locations for larger scale operations will vary depending on the method of composting used. For example, open-air operations will have greater potential for causing odour and noise nuisance and therefore should not be located close to residential areas. Existing areas of hardstanding in appropriate locations would be suitable.

5.43 Community composting schemes will have to balance the need to be accessible to the local public but minimise the associated impacts such as odour, noise and traffic. These operations should be small scale and be accommodated in existing buildings or small areas of existing hardstanding on appropriate locations.

5.44 In-vessel composting is more of an industrial process which can occupy a building and this can help limit environmental impacts, but it is a more costly method of composting. There is potential to assist agricultural diversification through the re-use of appropriate rural buildings. It could also be developed as part of an integrated waste management facility. This would help to reduce transport of waste and minimise double handling.

POLICY 10 – HOUSEHOLD WASTE RECYCLING CENTRES

HOUSEHOLD WASTE RECYCLING CENTRES WILL BE PERMITTED WHERE THIS WILL HELP TO ACHIEVE A NETWORK OF SITES ACCESSIBLE TO LOCAL COMMUNITIES AND WHERE IT IS SHOWN TO MAKE A POSITIVE CONTRIBUTION TO AN INTEGRATED AND SUSTAINABLE WASTE MANAGEMENT SYSTEM FOR GLOUCESTERSHIRE.

5.45 The County Council as Waste Disposal Authority provides Household Waste Recycling Centres, also known as Civic Amenity Sites, where householders bring bulky waste and recyclable waste material such as metals, paper, textiles, glass, cans, oil and 'green' waste. Recycling banks are also provided by District Councils, Parish Councils or private enterprises and are often associated with schools, hospitals and supermarkets. These facilities may not require separate planning permissions if they are ancillary to other development.

5.46 The County Council has identified a need for new Household Waste Recycling Centres in Gloucester, Stroud, the Forest of Dean and in the Cotswolds during the life of the Waste Local Plan. For example small towns such as Lechlade and Newent are not well served by such facilities.

5.47 The Waste Planning Authority will promote the development of facilities in appropriate locations that are easily accessible to local communities, and complement separate kerbside collections and recycling banks for selected waste streams. Locations, which have the scope for ancillary recycling and composting schemes on site, would be preferred. Sites for Household Waste Recycling Centres may be appropriate as part of existing waste management facilities.

POLICY 11 – WASTE COLLECTION FACILITIES

PERMISSION WILL BE GRANTED FOR WASTE MANAGEMENT FACILITIES THAT ASSIST WASTE COLLECTION AUTHORITES TO COLLECT, RECOVER, RECYCLE, DIVERT AND DISPOSE OF WASTE IN AN EFFICIENT AND SUSTAINABLE WAY.

5.48 This policy provides general support for the development of waste facilities, which are proposed in relation to waste collection.

5.49 Waste collection is a function of Gloucestershire's six district councils, as Waste Collection Authorities (WCA). As WCA, the district councils have a duty to collect household waste and may also collect commercial and industrial waste. The WCA also make arrangements to recycle this waste. All provide recycling facilities and sites and kerbside collection of at least one type of recyclable material, although there is multi-material kerbside collection in many areas. The WCA are responsible for delivering waste to management facilities.

5.50 Appropriate locations connected to the collection of waste by the WCA's will be considered under policies 4, 5 and 6, where they meet the criteria and policies of the Development Plan. Requirements for different types of facilities proposed by the WCA are provided in the Plan, for example Policy 10 deals with household waste recycling facilities.

5.51 Waste Strategy 2000 encourages close and effective liaison between the relevant WPA's, WDA's and WCA's on waste management issues. Gloucestershire County Council as WPA is committed to liasing with all relevant authorities in order to improve the sustainability of how waste is dealt with in Gloucestershire, having regard to BPEO. In order to achieve sustainable waste management in Gloucestershire, the Waste Planning Authority will:

- Exchange relevant, accurate and timely waste data (subject to commercial confidentiality) with other authorities; and
- Monitor waste management contracts to achieve the BPEO; and
- Promote waste minimisation, recovery and recycling of waste

POLICY 12 – INERT RECOVERY & RECYCLING

FACILITIES FOR THE RECOVERY AND RECYCLING OF INERT WASTE MATERIALS WILL BE PERMITTED IN APPROPRIATE LOCATIONS. DEVELOPMENTS MAY BE ACCEPTABLE ON EXISTING WASTE MANAGEMENT SITES AND MINERAL WORKINGS WHERE IT CAN BE DEMONSTRATED THAT THE USE WILL NOT UNDULY PREJUDICE THE AGREED RESTORATION TIMESCALE FOR THE SITE. TEMPORARY DEVELOPMENTS MAY BE ACCEPTABLE WHERE THE MATERIAL IS RECYCLED AND RE-USED ON SITE.

5.52 Appropriate locations for inert recovery and recycling facilities will be considered under policies 4, 5 and 6 where they meet the criteria and policies of the Development Plan. The location will depend on the scale and size of the proposed facility. Schedule 1 (Policy 4) identifies strategic sites and Schedule 2 (Policy 5) local sites. An appropriate alternative location may be associated with mineral workings and landfill sites, provided that the use does not conflict with approved restoration proposals. Reference should be made to the good practice guidance 'Controlling the Environmental Effects of Recycled and Secondary Aggregates Production' (DETR) which was published in February 2000.

5.53 Inert recovery and recycling facilities can either be centralised and permanent or temporary and located on-site. The latter are suitable for large-scale demolition operations, enabling construction wastes to be recycled close to where it arises. This minimises transport particularly if the secondary aggregates are then re-used on site.

5.54 A permanent facility may be suitable if there is a continuous and long-term supply of construction wastes from a particular catchment area alongside a market for recycled

materials and aggregates. In assessing proposals, consideration will be given to the proximity of the proposed facility to the source of waste and potential markets in order to minimise transport and environmental impacts. Careful consideration will also be given to the minimisation and mitigation of adverse environmental impacts such as traffic, visual intrusion, noise and dust. All proposals will be assessed against the policies and proposals of the Minerals Local Plan as well as this Plan and the Development Plan as a whole.

POLICY 13 – MATERIALS RECOVERY & WASTE TRANSFER FACILITIES

PROPOSALS FOR MATERIALS RECOVERY AND WASTE TRANSFER FACILITIES WILL BE PERMITTED IN APPROPRIATE LOCATIONS WHERE IT CAN BE DEMONSTRATED THAT THE DEVELOPMENT WILL ASSIST THE EFFICIENT COLLECTION AND RECOVERY OF WASTE MATERIALS.

5.55 Appropriate locations for Materials Recovery and Waste Transfer Facilities will be considered under policies 4, 5 and 6 where they meet the criteria and policies of the Development Plan. The location will depend on the scale and size of a proposed plant. Schedule 1 (Policy 4) identifies strategic sites and Schedule 2 (Policy 5) local sites.

5.56 Materials recovery and waste transfer facilities cover a wide range of waste management options, from all types of waste transfer station, storage facilities, multi-stream separation facilities to recycling treatment facilities and community recycling schemes.

5.57 All facilities will need to be close to the source of waste arisings, and have good accessibility. Ideally they should be integrated in existing waste management operations. Opportunities for providing recycling and recovery facilities close to or within major housing, industrial, retail and commercial development would be welcomed. The issue of waste management should be considered by all local planning authorities in development proposals to ensure that waste is dealt with by the communities that generate it.

5.58 Facilities such as Materials Recovery Facilities (MRFs), recycling centres, transfer stations and composting plants are encouraged as they form an important “local” element of a sustainable waste management system. Also new waste recovery facilities can create jobs and contribute to the local economy, encouraging associated commercial operations to use and market recovered materials.

5.59 Planning Policy Guidance Note 7 ‘The Countryside – Environmental Quality and Economic and Social Development’ (and the Consultation Draft PPS 7 – Sustainable Development in Rural Areas) provides guidance on development in rural areas. Depending on size and scale, recycling facilities can contribute to rural diversification and a sustainable network of waste management facilities. Ideally, facilities in rural areas should be accommodated in existing permanent buildings that do not require significant adaptation as part of farm diversification or re-use of brownfield sites.

POLICY 14 – METAL RECYCLING FACILITIES

PROPOSALS FOR FACILITIES WHICH HANDLE, PROCESS, TRANSFER OR STORE SCRAP OR ABANDONED VEHICLES OR OTHER SCRAP METAL WILL ONLY BE PERMITTED WITHIN APPROPRIATE LOCATIONS. SMALL SCALE FACILITIES MAY ALSO BE PERMITTED AS PART OF AN EXISTING WASTE MANAGEMENT SITE.

5.60 Appropriate locations for metal recycling facilities will be considered under policies 4, 5 and 6 where they meet the criteria and policies of the Development Plan. The location will depend on the scale and size of a proposed plant. Schedule 1 (Policy 4) identifies strategic sites and Schedule 2 (Policy 5) local sites.

5.61 Metal recycling facilities include car breakers and scrapyards. These make a valuable contribution to the re-use, recycling and recovery of metal wastes, as well as providing jobs and contributing to the local economy. Currently some metals are exported from Gloucestershire to other European countries.

5.62 Several metal recycling facilities in Gloucestershire are situated outside established industrial areas, but proposals for new facilities will only be permitted in appropriate locations, where the impacts of noise, vehicular movement and dust on local amenity can be adequately mitigated. Operations will normally need to be under cover and the extent of open-air storage should be minimised and screened.

POLICY 15 – WASTE TO ENERGY RECOVERY

PROPOSALS FOR THE DEVELOPMENT OF WASTE TO ENERGY RECOVERY FACILITIES WILL BE PERMITTED IN APPROPRIATE LOCATIONS WHERE IT CAN BE DEMONSTRATED THAT-

- **THE FACILITY WOULD BE PART OF A SUSTAINABLE WASTE MANAGEMENT SYSTEM; AND**
- **IN DEMONSTRATING SUSTAINABLITY THE FACILITY WOULD NOT PREDJUDICE TARGETS BEING MET FOR RECYCLING; IT WOULD REALISE ENERGY RECOVERY; AND DISPOSAL ROUTES FOR RESIDUES WOULD BE SATISFACTORY; AND**
- **THE FACILITY WOULD MEET THE RELEVANT POLICIES AND CRITERIA OF THE DEVELOPMENT PLAN.**

5.63 The national waste strategy (Waste Strategy 2000) requires the consideration of other waste management options before Waste to Energy. The location of facilities will depend on the degree to which a plant contributes to a sustainable waste management system and meets the identified needs of Gloucestershire. Appropriate locations for waste to energy recovery facilities will be considered under policies 4, 5 and 6 where they meet the criteria and policies of the Development Plan.

5.64 There are a variety of technologies, which enable waste to energy recovery. Various technologies are outlined in Chapter 4. They include anaerobic digestion, feedstock substitutes and recycling, fermentation, fuel substitutes, gasification, incineration, plasma arc and pyrolysis.

5.65 The Waste Planning Authority wants to encourage maximum recovery of materials so that Gloucestershire's remaining landfill capacity is used for the non-hazardous residues from waste treatment processes in line with the Landfill Directive. Waste to energy recovery generates electricity and heat. The electricity can be exported to the national grid and the heat could be used by local industry or housing. In assessing applications for waste to energy recovery plants, the Waste Planning Authority will give preference to schemes that integrate the reuse of energy, heat and residues.

5.66 Proposals for waste to energy recovery facilities should include 'front end' recycling and composting to ensure that the maximum amount of material is recovered. In identifying appropriate locations, the facility should be in close proximity to waste arisings and be associated with development to use the surplus heat.

5.67 All proposals will be assessed against its potential contribution to a sustainable waste management system for Gloucestershire. The application of the Best Practicable Environmental Option methodology is an important element of assessing sustainable waste management. Key criteria for BPEO is indicated in Table 5.1. Proposals should not undermine national planning policy guidance and the national waste strategy. In addition, the objectives, geographic statement and guiding principles set out in Chapter 2, and the policies of Chapter 5, provide key criteria which will be used to assess whether a development proposal is an essential part of a sustainable waste management system in Gloucestershire.

POLICY 16 – SPECIAL WASTE FACILITIES

FACILITIES FOR THE ADDITIONAL HANDLING, TREATING, PROCESSING OR DISPOSAL OF SPECIAL WASTES WILL BE PERMITTED IF IT CAN BE DEMONSTRATED-

- **THAT IT WOULD FORM PART OF A SUSTAINABLE WASTE MANAGEMENT SYSTEM; AND**
- **THAT IT WOULD MEET THE RELEVANT POLICIES AND CRITERIA OF THE DEVELOPMENT PLAN.**

5.68 Special wastes are defined as being hazardous or dangerous, and are subject to strict regulatory controls by the Environment Agency. These wastes often contain oils, metals and solvents, which can be re-used or recycled. Almost all the special wastes generated in Gloucestershire are dealt with in the County.

POLICY 17 – MINING OF WASTE

THE MINING OF WASTE WILL ONLY BE PERMITTED WHERE MINING WILL PROVIDE A DEMONSTRABLE BENEFIT TO THE ENVIRONMENT, HUMAN HEALTH AND LOCAL AMENITY, OR WHERE THE WASTE IS SHOWN TO BE ENDANGERING HUMAN HEALTH, HARMING THE ENVIRONMENT, OR ITS REMOVAL IS REQUIRED TO FACILITATE MAJOR INFRASTRUCTURE PROJECTS.

5.69 The mining of waste is a process by which materials in an existing landfill site are recovered, first by extracting and then treating the materials. The process can be carried out to create more capacity in a landfill or landraising site. The Waste Planning Authority considers that there is no overriding regional or local need for such operations to be carried out within the County in order to increase landfill capacity.

5.70 The process can recover recyclable materials, but generally this has been of little practical value. However, for sites suffering from poor engineering, or causing pollution, this process may be justified in exceptional cases. Such operations would require strict control of leachates, landfill gas, odours and dust to avoid pollution problems and may delay the restoration of the site. The assessment and control of pollution is primarily the responsibility of the Environment Agency as Pollution Control and Waste Management Licensing Authority. As such any proposals regarding the mining of waste would involve close consultation with the Agency.

5.71 The removal of ‘waste’ materials from former and existing quarries and mines, such as Pulverised Fuel Ash, furnace ash, clinker and metallic slags, are by virtue of the Minerals Act 1981, classed as minerals. The working of these materials is therefore subject to the criteria and policies of the Minerals Local Plan.

DISPOSAL FACILITIES

POLICY 18 – NON-ENERGY RECOVERY INCINERATION

WASTE INCINERATION WITHOUT ENERGY RECOVERY WILL NOT BE PERMITTED EXCEPT WHERE IT CAN BE DEMONSTRATED TO MEET THE CRITERIA AND POLICIES OF THE DEVELOPMENT PLAN, IN PARTICULAR THAT CONCERNING BEST PRACTICABLE ENVIRONMENTAL OPTION AND IT FORMS PART OF A SUSTAINABLE WASTE MANAGEMENT SYSTEM.

5.72 Incineration without energy recovery (NERI) is not generally considered to be a sustainable waste management option. Therefore it does not comply with the guiding principles and overall aim of the Waste Local Plan.

5.73 However, for some wastes, such as special wastes and medical or clinical wastes, incineration may be the Best Practicable Environmental Option. The Waste Planning Authority considers that there is sufficient existing capacity to deal with such waste arising in Gloucestershire for the Plan period. However, any new proposals will be assessed against demonstrable need and the criteria and policies of the Development Plan. In developing proposals reference should be made to the Health and Safety Executive (1999) guidance "Safe Disposal of Clinical Waste".

POLICY 19 – SEWAGE AND WATER TREATMENT

PROPOSALS FOR THE TREATMENT AND DISPOSAL OF SEWAGE AND SEWAGE SLUDGE WILL BE PERMITTED IN APPROPRIATE LOCATIONS WHERE IT CAN BE DEMONSTRATED THAT;

- **THE FACILITY WOULD BE PART OF A SUSTAINABLE WASTE MANAGEMENT SYSTEM; AND**
- **THE FACILITY WOULD MEET THE RELEVANT POLICIES AND CRITERIA OF THE DEVELOPMENT PLAN.**

5.74 Severn Trent Water, Thames Water and Welsh Water deal with sewage treatment in the County. Sewage treatment works vary considerably in scale. However they will involve settlement and treatment tanks and pumping equipment. Obviously, there is a requirement for a treatment works to be reasonably well situated to the population that it is to serve. However, there is also a requirement for access to drainage facilities to disperse treated effluent.

5.75 The Waste Planning Authority must ensure that the land-use implications of future sewage treatment are met, that environmental standards are raised, and that the environment and amenity of local people is protected. Proposals must therefore satisfy the other criteria and policies of the Development Plan. In particular developers should consider the impact, requirements and implications of major developments on waste water and sewage production at an early stage in the planning process. Consideration should be given to employment of environmentally enhancing systems such as reed beds and wetlands in appropriate circumstances.

5.76 Modern technology is reducing the operational area required for sewage treatment works but new facilities associated with new built development will be required. However, there may be a potential for sewage treatment sites to be able to accommodate other waste management facilities or joint arrangements such as co-composting or anaerobic digestion, which utilise household waste and sewage

sludge. The Waste Planning Authority encourages the use of sites for integrated waste management.

5.77 Under the Urban Waste Water Treatment Directive, sewage is not allowed to be discharged to the sea except in a limited number of circumstances such as from small communities. It is the role of the Environment Agency to enforce such issues. The standards applied to the current practice of spreading or injecting liquid sewage and sludge onto farmland are also likely to be reviewed. However, the output of sewage sludge will continue and the Directive means that there will be increased quantities of sewage sludge to be disposed of by landfill, landspreading, incineration, composting with domestic waste, or as a soil conditioner for agricultural land or land restoration. There needs to be careful monitoring and control over the application of sludge products to land to ensure heavy metals, pathogens and nitrogen are within acceptable levels. This is regulated and controlled by the Environment Agency.

5.78 The disposal of sludges by landfill, landspreading and injecting wastes into land is covered by the policies below. These policies relate to all materials that are utilised in disposal to land. Disposal to land includes operations described as agricultural improvement and restoration of mineral sites, as well as landfill and landraising.

POLICY 20 – LANDFILL / LANDRAISING

NEW LANDFILL/LANDRAISE PROPOSALS WILL NOT BE PERMITTED UNLESS IT CAN BE DEMONSTRATED THAT;

- **THE FACILITY WOULD BE PART OF A SUSTAINABLE WASTE MANAGEMENT SYSTEM; AND**
- **THE FACILITY WOULD MEET THE RELEVANT POLICIES AND CRITERIA OF THE DEVELOPMENT PLAN.**

5.79 Given the level of permitted capacity in the Plan period and beyond, it is not considered necessary to allocate new sites for landfill or landraising in this Waste Local Plan. Any proposal will have to demonstrate 'need' as part of an assessment of BPEO. Over allocation of landfill/landraise sites could undermine the direction of the whole Waste Local Plan. The Plan seeks to move away from the current dependence on waste disposal to landfill towards a more sustainable waste management system, which has greater recycling, composting and recovery facilities. The shift from landfill is supported by the mechanisms of the Landfill Tax and the European Landfill Directive.

5.80 The European Landfill Directive was transposed into UK law in 2001. As a result landfill sites across the European Union face strict regulatory controls on their operation, environmental monitoring and long term after care. In the UK, the Waste Management Licensing Regulations 1994 and the Environmental Protection Act 1990 make provision for our current strict controls. The Environment Agency grants Waste Management Licences, which incorporate environmental protection requirements, such as the control of leachates and landfill gas. Licences are periodically reviewed to bring them up to date with best practice for the protection of the environment and human health. Modifications are also made to take account of new legislation and government guidance.

5.81 There are a number of significant changes that the Directive will introduce. For example:

- Landfill sites must be categorised into Hazardous (Special), Non Hazardous (Degradable) or Inert Sites, therefore ending the practice of

co-disposal of wastes. There are two landfill/landraise sites which practice co-disposal in the County.

- Wastes must be treated before being landfilled and certain wastes are banned from landfill altogether, such as liquid wastes and tyres.
- Gas from all landfills receiving biodegradable waste must be collected, treated and used. Two landfill/landraise sites in Gloucestershire currently use the methane emitted to generate electricity.
- There are progressive mandatory limits on the landfill of biodegradable municipal waste.

The Landfill Directive will reinforce the shift away from landfill towards greater recycling, composting and recovery of waste.

5.82 Although landfill is being restricted and is at the bottom of the waste hierarchy, it will have a diminishing but, for the time being, important role to play in a sustainable waste management system. This is because it may represent the Best Practicable Environmental Option for certain wastes in certain circumstances and there are also wastes where it is the only waste management option, such as heavy sludges from some industrial processes and some incineration residues.

5.83 In circumstances where proposals for landfill come forward, they will be assessed against whether it contributes to a sustainable waste management system and whether it meets the criteria and policies of the Development Plan, in particular whether it represents BPEO. The objectives, geographic statement and guiding principles set out in Chapter 2 and the policies of Chapter 5 provide key criteria, which will be used to assess whether a development proposal contributes to a sustainable waste management system in Gloucestershire. The application of the Best Practicable Environmental Option methodology is an important element of assessing sustainable waste management.

5.84 For inert wastes, a balance needs to be drawn between the beneficial use of inert materials for site reclamation and in site engineering and their potential use in place of primary aggregates. Operators of degradable waste landfill sites will be encouraged to take measures to ensure that the amount of inert waste tipped into sites is kept to an absolute minimum consistent with environmental, operational and restoration requirements. Inert waste should be segregated and reused for site works including cover, bunds, roadways and restoration wherever possible. This should help to conserve landfill capacity for degradable wastes in these expensively engineered sites.

5.85 A lack of sufficient inert fill material may delay restoration of some mineral workings and cause dereliction problems. As a result planning proposals for mineral extraction will normally need to demonstrate that an appropriate form of restoration is viable without the need for large-scale imports. Proposals will be assessed against the policies and proposals of the Minerals Local Plan as well as this Plan and the Development Plan as a whole.

5.86 Existing sites will be protected from other development during their life through a consultation process with the District Councils [refer to policy 7]. Planning permission must be sought prior to the disposal of waste in landfill/landraise operations in order to avoid enforcement action. Such operations that proceed without planning permission can pose significant risk to human health and the environment and are illegal. Retrospective planning applications will not be permitted unless they

contribute to a sustainable waste management system, represent BPEO and meet the other criteria and policies of the Development Plan.

POLICY 21 – AGRICULTURAL IMPROVEMENTS

PROPOSALS FOR DEVELOPMENT BY LANDFILL OR LANDRAISING FOR THE PURPOSES OF AGRICULTURAL IMPROVEMENT WILL ONLY BE PERMITTED WHERE IT CAN BE SHOWN THAT: -

1. **THERE IS NO SIGNFICANT LOSS OF AMENITY CAUSED BY THE OPERATIONS AND TRAFFIC MOVEMENTS;**
2. **A SUFFICIENT QUANTITY OF INERT MATERIAL IS IDENTIFIED IN CLOSE PROXIMITY TO THE DEVELOPMENT TO ENABLE COMPLETE AND SATISFACTORY RESTORATION OF THE SITE;**
3. **RESTORATION IS COMPLETED WITHIN 12 MONTHS OF THE COMMENCEMENT OF DEVELOPMENT OR THE NEXT PLANTING SEASON, WHICH EVER IS SOONEST;**
4. **THE DEVELOPMENT IS CONSIDERED AS PART OF THE VIABILITY OF THE WHOLE AGRICULTURAL UNIT;**
5. **THE MATERIALS USED ARE INERT OR ARE SOIL IMPROVERS FROM COMPOSTING OR ANAEROBIC DIGESTION OPERATIONS WITHIN GLOUCESTERSHIRE;**
6. **OTHER OPTIONS AND ALTERNATIVES HAVE BEEN CONSIDERED BY AN APPROPRIATE ASSESSMENT AND REPORT AND THAT THE PROPOSAL IS IN ACCORDANCE WITH BEST PRACTICABLE ENVIRONMENTAL OPTION AND OTHER CRITERIA AND POLICIES OF THE DEVELOPMENT PLAN;**
7. **THE BEST AND MOST VERSATILE AGRICULTURAL LAND (GRADES 1, 2, AND 3A) WILL NOT BE ADVERSELY AFFECTED BY THE PROJECT.**

5.87 This policy is not aimed at restricting agricultural improvement, but restricting waste disposal by the 'back door'. Invariably these operations are exempt from the payment of landfill tax and are not agricultural improvements. This has impacted on the restoration of mineral sites. Recently, a number of mineral sites in the County have been poorly restored because insufficient inert material has been available. The policy is also aimed at helping protect much needed agricultural development from unauthorised disposal activities, which are often environmentally damaging.

5.88 Proposals, which are based on the improvement of land quality, land drainage or other related matters on agricultural land comprised within an agricultural unit, will be considered as 'agricultural improvement'. Proposals should satisfy the criteria in the policy and additional information will be required, such as:

1. Documentary evidence that the site is land in use for agriculture as defined within Section 336 of the Town and Country Planning Act 1990;
2. Documentary evidence as to the nature of the agricultural holding and why the land comprised within the application site needs to be improved;
3. A full statement of physical characteristics as well as documentary evidence as to the current physical condition of the application site;
4. Documentary evidence as to how the proposed method will improve the land;
5. Documentary evidence as to why no other available method of land improvement is appropriate and the reasons why;
6. Details of soil stripping, timing, movement, storage, and re-spreading of soils;
7. A comprehensive scheme of land restoration/improvement (including drainage);
8. An evaluation of the potential for materials recovery and reuse together with, where appropriate, details of a plan for implementation of recovery of inert waste materials from the site for reuse or recycling;

9. A scheme of quality control of the materials proposed to be deposited on the land which ensures uniformity of quality and type in accordance with the description of materials as set out in the planning application.

POLICY 22 - LANDSPREADING

THE SPREADING OF UNTREATED OR TREATED LIQUIDS, SLUDGE DISCARDS, SEWAGE SLUDGE, SOILS OR ANY DERIVATIVE THEREOF WILL NOT BE PERMITTED UNLESS IT CAN BE SHOWN THAT IT WILL BENEFIT THE FERTILITY OF THE LAND CONCERNED AND WILL NOT:

1. **GIVE RISE TO POLLUTION OF WATER RESOURCES, MALODOROUS EMISSIONS OR UNACCEPTABLE HIGHWAY IMPACT (INCLUDING TRAFFIC MOVEMENTS).**

2. **ENDANGER HUMAN HEALTH OR CAUSE HARM TO THE ENVIRONMENT, IN PARTICULAR WITHOUT:**
   - **RISK TO WATER, AIR, SOILS, PLANTS OR ANIMALS;**
   - **CAUSING NUISANCE THROUGH NOISE OR ODOURS;**
   - **ADVERSELY AFFECTING THE COUNTRYSIDE OR PLACES OF SPECIAL INTEREST.**

5.89 Landspreading and mulching are normally outside the scope of planning control. Where such operations are carried out in connection with normal agricultural or forestry operations, the practice is subject to the regulation of pollution control bodies. However, rates of application above the limit of 250 tonnes of waste per hectare per annum [5000 tonnes in the case of dredgings from waterways] as contained in the exemptions for landspreading under the Waste Management Licensing Regulations 1994, would require a waste management licence and would therefore require a planning permission prior to obtaining a licence. There may be a requirement for storage facilities for large volumes of waste that does not arise on an agricultural holding. These may require planning permission and will be dealt with according to the criteria and policies contained within the Development Plan.

5.90 Spreading and injecting wastes on and into agricultural land is a long established method of disposing of many organic agricultural wastes such as manure, slurry, silage effluent and crop residues. There is also potential for the disposal of sewage sludge and certain industrial wastes such as paper sludge, food processing waste (subject to the provisions of the Animal By-Products Order 1999, as amended) and non-food wastes such as lime and gypsum. If not properly managed and controlled there can be environmental problems such as pollution of water resources and complaints over odours. Water resources include groundwater, surface water and watercourses. Landspreading can nevertheless be an economic and environmentally acceptable method of disposing of some organic wastes, subject to appropriate controls. These wastes can contain valuable nutrients, act as a soil improver and reduce the need for artificial fertilisers on cropped land. In the future, pre-treatment by biological degradation would increase the range of wastes that could be finally disposed of in this way.

5.91 The spreading of waste to agricultural land should be carried out with great care, as it is easy to spread toxins and allow build up of heavy metals. Reference should be made to 'Code of Good Agricultural Practice for the Protection of Soil' published by the Ministry of Agriculture, Fisheries and Food, which provides guidance to farmers and waste operators on matters to consider before spreading onto land. All

landspreading activity must be registered with the Environment Agency. Special care should be taken when dealing with sewage sludge disposal within the immediate catchment of the Severn Estuary Site of Special Scientific Interest (SSSI), Ramsar Site and Special Protection Area (SPA).

5.92 The practice of landspreading is subject to a wide range of guidance and legislation which governs the quantity of waste spread on any particular piece of land and its nutrient content to protect soil and crop quality, human and animal health and water quality. Research is continuing in this area and may be used to refine present controls.

ENVIRONMENTAL CONSTRAINTS AND ISSUES

5.93 This section provides policies and guidance, which give protection to the environment from the potentially adverse impacts of waste management development.

NATURE CONSERVATION

POLICY 23 - INTERNATIONALLY AND NATIONALLY DESIGNATED SITES FOR NATURE CONSERVATION

PLANNING PERMISSION WILL NOT BE GRANTED FOR WASTE DEVELOPMENT, WHICH WOULD CONFLICT WITH THE CONSERVATION, MANAGEMENT AND ENHANCEMENT OF THE FOLLOWING DESIGNATED SITES OF INTERNATIONAL AND NATIONAL IMPORTANCE:

INTERNATIONAL:
- **RAMSAR SITES**
- **SPECIAL PROTECTION AREAS (INCLUDING POTENTIAL SITES)**
- **SPECIAL AREAS OF CONSERVATION (INCLUDING CANDIDATE SITES)**

NATIONAL:
- **NATIONAL NATURE RESERVES**
- **SITES OF SPECIAL SCIENTIFIC INTEREST**

5.94 All sites of International and National importance for nature conservation on land are also Sites of Special Scientific Interest (SSSI) under UK legislation. SSSIs are given strong protection under both conservation and planning legislation. Planning Policy Guidance note 9 'Nature Conservation' seeks to ensure that these sites are protected in a way that is consistent with the objectives of their designation and requires the Waste Local Plan to take account of nature conservation interests. This policy ensures that designated sites in Gloucestershire are given strong protection from the impact of waste development. In addition, Gloucestershire County Council is a 'competent authority' under the Conservation (Natural Habitats & c.) Regulations 1994 and the Conservation (Natural Habitats, &c.) (Amendment) (England) Regulations 2000 with defined duties to conservation under the EC Birds and Habitats Directives.

POLICY 24 – LOCALLY DESIGNATED SITES FOR NATURE CONSERVATION

PLANNING PERMISSION WILL NOT BE GRANTED FOR WASTE DEVELOPMENT WHICH WOULD HAVE A COMPROMISING ADVERSE IMPACT NOT CAPABLE OF MITIGATION, ON THE NATURAL FEATURES AND BIODIVERSITY OF THE FOLLOWING LOCAL NATURE CONSERVATION DESIGNATIONS:

LOCAL NATURE RESERVES:

- **KEY WILDLIFE SITES**
- **WILDLIFE CORRIDORS**
- **ANCIENT SEMI NATURAL WOODLANDS**
- **REGIONALLY IMPORTANT GEOLGICAL/GEOMORPHOLOGICAL SITES (RIGS)**

5.95 Local Authorities can designate Local Nature Reserves, which have statutory status. In Gloucestershire, Local Nature Reserves are identified in the relevant district-wide Local Plans. The Gloucestershire Wildlife Trust designates and maintains records of the County's Key Wildlife Sites, which include non-statutory nature reserves.

5.96 The Wildlife Trust also identifies Wildlife Corridors. Planning Policy Guidance Note 9 "Nature Conservation", provides guidance on wildlife corridors; they are landscape features that have a linear and continuous structure, which help to provide linkages between various habitats in the countryside. Wildlife corridors are considered to be of major importance to the maintenance of the biodiversity of wild flora and fauna. Examples of wildlife corridors include rivers and their banks and traditional field boundary systems such as hedgerows. With regard to geological/geomorphological interest, the Gloucestershire RIGS Group identifies and maintains records of Regionally Important Geological/Geomorphological Sites (RIGS) in the County.

5.97 Ancient Semi Natural Woodland (ASNW) is an important countryside feature, which forms a rich wildlife resource and has high nature conservation value. The term ASNW refers to woodland, which has not obviously originated from planting. The Forestry Commission takes this to be areas of woodland, which have remained under continuous tree cover since 1600 without substantial replanting with 'exotic' species such as conifers. In Gloucestershire, all Ancient Semi Natural Woodland over 2 hectares in size are designated as Key Wildlife Sites by the Gloucestershire Wildlife Trust. However, ASNW that are less than 2 hectares still require protection from development, in line with national forestry policy contained in the Strategy for Forestry in England 1999. The Waste Planning Authority will take advice from the Forestry Commission and English Nature regarding the recognition and identification of such ASNW.

5.98 Although locally designated sites carry less weight in terms of nature conservation interest than nationally designated sites, they still form a valuable nature conservation resource. In particular locally designated sites help conserve a wide and diverse range of habitat necessary to fulfil the objectives of the County's Biodiversity Action Plan.

5.99 Local sites require protection not only for their own sake, but also because they form part of a network or a protective buffer to other nature conservation sites.

5.100 Waste operations can cause irreparable damage, either directly through physical destruction or indirectly through pollution, alteration of water tables, or dust and disturbance to nearby sensitive vegetation. Applicants will need to demonstrate to the satisfaction of the relevant authorities that there will not be any adverse effects, either directly or indirectly.

POLICY 25 - CONSERVATION OUTSIDE DESIGNATED SITES

PROPOSALS FOR WASTE DEVELOPMENT WILL ONLY BE PERMITTED

WHERE ADVERSE IMPACTS ON FEATURES, WHICH ARE OF MAJOR IMPORTANCE FOR WILD FLORA AND FAUNA, NATURAL AND CULTURAL HERITAGE CAN BE PREVENTED OR MITIGATED.

5.101 Maintaining biodiversity is an important issue. It can be defined as "the sum total of life's variety on Earth". Proposals for waste development will be assessed against the Biodiversity Action Plan for the County, which sets out a strategy and local targets for various habitats and species for improving biodiversity of the County. Reference is made in the development considerations section to the opportunities that can exist for sustaining and improving biodiversity. Designated sites form only part of the natural resources of this County. Features such as wildlife/habitat corridors, traditional field boundaries, ponds, geological/geomorphological sites and small woods also need to be protected from development as they form part of a network of wildlife refuges which enables the migration and dispersal of species.

5.102 This policy provides general protection from waste development for undesignated features that are important not only to wild flora and fauna but also for Gloucestershire's' cultural heritage. In this sense, cultural heritage includes the social, scientific and historical context that makes Gloucestershire the diverse County it is today. The status and value of natural habitats needs to be assessed at the time of each application irrespective of whether there is a designation.

LANDSCAPE

POLICY 26 - AREAS OF OUTSTANDING NATURAL BEAUTY

PROPOSALS FOR WASTE DEVELOPMENT WITHIN AREAS OF OUTSTANDING NATURAL BEAUTY, AND/OR ADVERSELY AFFECTING THE NATURAL BEAUTY OF THEIR LANDSCAPE SETTING, WILL ONLY BE PERMITTED WHERE:

- **IT CAN BE DEMONSTRATED TO BE THE BEST PRACTICABLE ENVIRONMENTAL OPTION; AND**
- **THERE IS A LACK OF ALTERNATIVE SITES; AND**
- **THERE IS A PROVEN NATIONAL INTEREST; AND**
- **THE IMPACT ON THE SPECIAL FEATURES OF THE AONB CAN BE MITIGATED.**

5.103 Areas of Outstanding Natural Beauty (AONB) are statutorily designated areas, which have national status. Gloucestershire's landscape is affected by 3 AONB designations, the Cotswolds, the Wye Valley and the Malvern Hills. The primary objective of AONB designation is the conservation of the natural beauty of landscape.

5.104 Proposals for waste development in AONB will need to demonstrate BPEO and will undergo rigorous examination as will proposals for waste development outside AONB which could adversely affect the setting of these designated areas.

POLICY 27 - SPECIAL LANDSCAPE AREAS

PROPOSALS FOR WASTE DEVELOPMENT IN SPECIAL LANDSCAPE AREAS WILL ONLY BE PERMITTED WHERE THE IMPACT ON THE SPECIAL FEATURES OF THE LANDSCAPE CAN BE MITIGATED.

5.105 Areas of distinctive local landscape character, requiring a degree of protection, can be given the non-statutory designation of Special Landscape Area (SLA). Proposals for waste development even on a limited scale can have a significant detrimental visual impact on the landscape, not just from the plant, but from the transport routes. The impact of these proposals on the specific features and qualities that justified the designation of the SLA will be given full consideration in the decision making process.

ARCHAEOLOGY AND THE HISTORIC ENVIRONMENT

POLICY 28 - SITES OF NATIONAL ARCHAEOLOGICAL IMPORTANCE

PROPOSALS FOR WASTE DEVELOPMENT WHICH WOULD CAUSE DAMAGE TO OR INVOLVE SIGNIFICANT ALTERATION TO NATIONALLY IMPORTANT ARCHAEOLOGICAL REMAINS OR THEIR SETTINGS, WHETHER SCHEDULED OR NOT, WILL NOT BE PERMITTED.

5.106 Gloucestershire has a particularly rich archaeological heritage. Scheduled and non-scheduled sites are featured on the Sites and Monuments Record held by Gloucestershire County Council. The need to conserve archaeological sites and monuments and their setting is a material consideration in determining planning applications.

5.107 However, a comprehensive countywide archaeological survey has not been carried out and therefore there may be considerably more important sites which have not yet come to light. Planning Policy Guidance note 16 “Archaeology and Planning”, advises where nationally important archaeological remains are affected by development there should be a presumption in favour of their physical preservation. The Waste Planning Authority will request an archaeological assessment of land affected by proposed waste development where it has not previously benefited from archaeological survey.

POLICY 29 - SITES OF LOCAL ARCHAEOLOGICAL IMPORTANCE

PROPOSALS FOR WASTE DEVELOPMENT WILL ONLY BE PERMITTED ON A SITE OF LOCAL ARCHAEOLOGICAL IMPORTANCE WHERE SATISFACTORY MITIGATION ARRANGEMENTS HAVE BEEN DEFINED FOLLOWING CONSIDERATION OF THE RESULTS OF AN ARCHAEOLOGICAL EVALUATION, RECORDING OR EXCAVATION AND SUBSEQUENT PUBLICATION OF THE RESULTS.

5.108 It may not always be possible to preserve all locally significant archaeological sites and settings ‘in situ’. Where it is not justified to physically preserve a site, the County Council must be satisfied that there is a proper provision for the excavation and recording of remains. This needs to be carried out before development starts in accordance with a brief agreed with the County Archaeologist. Details of mitigation requirements can only be determined after archaeological characteristics of sites have been evaluated. The scheme of excavation, recording, analysis, archiving and publication of results may be achieved by a legal agreement or conditions attached to a planning permission. The developer should meet the full costs of any investigations.

POLICY 30 – LISTED BUILDINGS AND CONSERVATION AREAS

PROPOSALS FOR WASTE DEVELOPMENT WHICH WOULD ADVERSELY AFFECT ANY LISTED BUILDING OR ITS SETTING, OR ANY FEATURE OF SPECIAL ARCHITECTURAL OR HISTORIC INTEREST IT POSSESSES, OR THE PRESERVATION OR ENHANCEMENT OF THE CHARACTER OR APPEARANCE OF ANY CONSERVATION AREA OR ITS SETTING WILL NOT BE PERMITTED UNLESS THE IMPACT CAN BE MITIGATED.

5.109 The listed buildings in Gloucestershire contribute greatly to the historic interest of the County. Once lost, Listed Buildings are irreplaceable. As an important component of Gloucestershire's built heritage the Waste Planning Authority will not support waste development which compromises Listed Buildings or Conservation Areas. This approach accords with Government guidance. Legislation exists to protect listed buildings from demolition or insensitive and harmful development. The Waste Planning Authority will ensure the impacts of proposed waste development on Listed Buildings and conservation areas is fully considered at the proposals stage of development.

POLICY 31 – HISTORIC HERITAGE

PROPOSALS FOR WASTE DEVELOPMENT, WHICH ADVERSELY AFFECT THE FOLLOWING DESIGNATIONS, WILL NOT BE PERMITTED UNLESS THE EFFECTS OF THE DEVELOPMENT CAN BE MITIGATED:

- **REGISTERED HISTORIC PARKS AND GARDENS,**
- **REGISTERED BATTLEFIELDS, AND**
- **LOCALLY IMPORTANT PARKS AND GARDENS.**

5.110 English Heritage has compiled a non-statutory register of Historic Parks and Gardens and Battlefields. There are a number of important parks and gardens and two battlefields listed in Gloucestershire. Although these parks and gardens currently have no statutory basis, English Heritage has indicated that they are nationally significant. As such they contribute to the historic landscape and interest of the County and should be afforded the appropriate degree of protection from waste development. PPG 15 recognises the need to safeguard registered sites and their settings, which will be material factors in making planning decisions.

5.111 Locally important parks and gardens, which are features of our historic heritage, are identified on a preliminary listing that is held by the County Council. The list is being updated by the Gloucestershire Gardens and Landscape Trust.

AGRICULTURE

POLICY 32 - AGRICULTURAL LAND

THE BEST AND MOST VERSATILE AGRICULTURAL LAND (GRADES 1, 2 AND 3A) WILL BE PROTECTED FROM DEVELOPMENT. PROPOSALS FOR WASTE DEVELOPMENT WILL ONLY BE PERMITTED WHERE IT CAN BE DEMONSTRATED THAT THERE IS AN OVERRIDING NEED FOR THE DEVELOPMENT AND AN ABSENCE OF SUITABLE ALTERNATIVE SITES.

WHERE THERE IS AN OVERRIDING NEED TO DEVELOP BEST AND MOST VERSATILE LAND, THE WASTE PLANNING AUTHORITY WILL GIVE PREFERENCE TO A LOCATION WHICH WOULD INVOLVE THE LOSS OF THE LOWEST GRADE LAND.

5.112 In accordance with the principles of Sustainable Development, the Waste Planning Authority will protect the best and most versatile land (Grades 1, 2 and 3a) from permanent loss through Waste Development. Examples of overriding need include where:

(i) Sufficient land of a lower grade (grades 3b, 4 and 5) is unavailable; or

(ii) Available lower grade land has an environment value recognised by a statutory wildlife, historic or archaeological designation (this list is not exclusive) and outweighs the agricultural considerations.

5.113 When considering if circumstances exist which would merit permitting waste development on high quality land, regard will be had to the type of facility proposed, and the extent to which it would be possible to ensure satisfactory restoration of the land within a reasonable timescale and to an equivalent or higher agricultural grade. This includes importation of fill material to restore the long term agricultural potential of sites formerly on the best and most versatile land and which have been despoiled by development of any kind. Although preference is given to the development of poorer quality agricultural land to that of a higher grade there are exceptions where other sustainability considerations suggest otherwise. Waste management facilities requiring permanent built development would not normally be permitted on best and most versatile agricultural land. Policy 41 concerns restoration of temporary waste sites.

WATER

POLICY 33 - WATER RESOURCES – POLLUTION CONTROL

PROPOSALS FOR WASTE DEVELOPMENT WILL ONLY BE PERMITTED WHERE THERE WOULD BE NO UNACCEPTABLE RISK OF CONTAMINATION TO SURFACE WATERCOURSES, BODIES OF WATER OR GROUNDWATER RESOURCES.

5.114 Protection of surface and groundwater resources is a major environmental factor in considering of any waste development. Topography, the underlying geology and hydrogeology may exclude sites even though they may have permission for industrial use. Despite safeguards it may be considered that there is a too great a risk of pollution should the environmental management systems fail leading to contamination of water resources. Applicants will need to provide an assessment of the potential risk, and may be required to undertake a hydrological and geological survey appropriate to the nature of the proposal. Development proposals will be required to incorporate provisions for the containment and proper disposal of waste related substances and discharges that have the potential to cause pollution to surface or groundwater resources. The use of an appropriate buffer strip along any significant watercourses will also need to be incorporated to give protection from pollution and to safeguard wildlife corridors.

5.115 Pollution damage can result from landfill leachate, surface water run off and discharge of waste water from landfills, composting and recycling plants, as well as interference with drainage and water movement in flood plains. It should be noted that the potential risk of water pollution from agricultural units could be dramatically reduced by using anaerobic digestion plants for agricultural wastes. The Environment Agency is a statutory consultee and has records of sensitive water abstraction points and zones that require protection. It is not possible to be specific about these in this Plan as the areas will vary over time due to changing conditions, including climate,

permeability of the ground strata, and the proximity of other groundwater sources which exert competing abstraction forces. However a good indication of the most vulnerable areas can be gained by reference to the Groundwater Vulnerability Maps produced by the Environment Agency. The Agency has also produced 'Policy and Practice for the Protection of Groundwater' which provides helpful guidance.

POLICY 34 - WATER RESOURCES – FLOOD CONTROL

PROPOSALS FOR WASTE DEVELOPMENT WILL ONLY BE PERMITTED WHERE THERE WOULD BE NO UNACCEPTABLE RISK OF DEVELOPMENT IMPEDING THE FLOW OF SURFACE OR GROUNDWATER, REDUCING FLOOD STORAGE CAPACITY OR INCREASING THE RATE OF SURFACE WATER RUN-OFF, WHICH WOULD RESULT IN FLOODING NEAR THE SITE OR ELSEWHERE.

5.116 Interruption and impediment to the flow of watercourses by development located in inappropriate areas can cause significant environmental harm and loss of amenity. Erecting structures or landraising in and outside the flood plains of a watercourse can alter the flow of surface waters. This can happen in the immediate area of the development but also further down or up stream. It is intended that this policy will help prevent development in inappropriate locations and assist responsible flood plain management. Accordingly, applications for waste development potentially affecting flood-risk areas will need to comply with the provisions of Planning Policy Guidance Note 25: Development and Flood Risk.

DEVELOPMENT IN THE GREEN BELT

POLICY 35 – GREEN BELT

IN THE GREEN BELT, WASTE MANAGEMENT DEVELOPMENT WILL ONLY BE PERMITTED WHERE IT CAN BE DEMONSTRATED TO BE THE BEST PRACTICABLE ENVIRONMENTAL OPTION AND DOES NOT CONFLICT WITH THE PURPOSES OF GREEN BELT DESIGNATION IN THE FOLLOWING INSTANCES:

A - THE CONSTRUCTION OF A WASTE MANAGEMENT FACILITY WILL ONLY BE PERMITTED WHERE IT COMPRISES AN ESSENTIAL FACILITY WHICH IS GENUINELY REQUIRED AND WHOSE FORM, BULK AND GENERAL DESIGN IS IN KEEPING WITH ITS SURROUNDINGS AND WHERE WASTE MANAGEMENT OPERATIONS OF A TEMPORARY NATURE INCLUDE THE LIKELY DURATION OF THE WASTE MANAGEMENT OPERATION.

B - THE RE-USE OF A BUILDING FOR WASTE MANAGEMENT PURPOSES WILL BE PERMITTED PROVIDED:

- **(I) IT DOES NOT HAVE A MATERIALLY GREATER IMPACT THAN THE PRESENT USE ON THE OPENNESS OF THE GREEN BELT AND THE PURPOSES OF INCLUDING LAND IN IT;**
- **(II) THE BUILDING IS OF PERMANENT AND SUBSTANTIAL CONSTRUCTION AND IS CAPABLE OF CONVERSION WITHOUT MAJOR OR COMPLETE RECONSTRUCTION; AND**
- **(III) THE FORM, BULK AND GENERAL DESIGN OF THE BUILDING IS IN KEEPING WITH ITS SURROUNDINGS.**

5.117 Planning Policy Guidance note 2 "Green Belt" has introduced a general 'presumption against inappropriate development' in the Green Belt, which it defines as development that is harmful to the Green Belt. This presumption can only be

overridden in cases where there are 'very special circumstances to justify inappropriate development'. This can only be decided in the context of a particular proposal. However, landraising is unlikely to be appropriate development in the Green Belt.

DEVELOPMENT CONSIDERATIONS

5.118 In determining planning applications the Waste Planning Authority will seek to secure planning and operational control over the development and will examine each application against relevant policies and guidelines. Guidelines have been specifically drafted to minimise the environmental impact of such development throughout its operational life. This section of the Plan, whilst not exhaustive, identifies recurring and specific development control considerations and introduces policies that relate to a range of waste development proposals.

5.119 Consideration will be given to all relevant aspects of the development which could include the following:

- The need for a particular waste management operation;
- The need for an Environmental Impact Assessment and Environmental Statement;
- The requirements of the Integrated Pollution Prevention and Control Regulations implemented by the Environment Agency;
- The waste implications of proposed development and waste minimisation;
- Proximity to sensitive properties and land-uses and any adverse cumulative effect in combination with other development in the locality;
- The likely generation of noise, vibration, odour, fumes, dust, litter, scavengers and vermin;
- Hours of operation;
- Transport, traffic and access, including Heavy Goods Vehicle generation, distribution, maximum daily flow rates, means of access to public highway, suitability and capacity of highway network, highway safety and environmental impact;
- Protection of public rights of way;
- The reinstatement and after-use of sites;
- The safeguarding of airports and aerodromes;
- Planning obligations;
- Monitoring, liaison and enforcement of waste management development including industry self-regulation and liaison committees.

5.120 This list is not exhaustive but it provides the framework for controlling waste development. It is recognised that other agencies, especially the Environment Agency, and other legislation cover matters of mutual interest and it is important that controls do not duplicate or conflict with each other.

5.121 Pre-application consultations by the applicants with the Waste Planning Authority, the Environment Agency and where appropriate, other statutory bodies should occur as a matter of course, as they can prove invaluable in the preparation of a planning application. In addition, applicants are encouraged to undertake their own consultation with the local host community before proposals are submitted and as appropriate thereafter.

ENVIRONMENTAL IMPACT ASSESSMENT

5.122 Environmental Impact Assessment (EIA) is a means of drawing together, in a systematic way, an assessment of a project's likely significant environmental effects. This helps to ensure that the importance of the predicted effects, and the scope for reducing them, are properly understood by the public and the relevant competent authority before it makes its decision. The result of an EIA is an Environmental Statement. Environmental Statements are mandatory for certain developments, and may be required by the Waste Planning Authority for other waste operations.

5.123 The Waste Planning Authority will take account of Regulations and Government guidance (currently the Town & Country Planning (Environmental Impact Assessment) Regulations 1999 (SI No. 293) and its amplifying Circular 2/99) in deciding whether to require an Environmental Statement when planning permission is sought. The regulations apply to two separate lists of projects. 'Schedule 1 projects' require environmental assessment in every case. They include proposals for; waste disposal installations for the incineration, chemical treatment or landfill of hazardous waste; installations for the incineration or chemical treatment of non-hazardous waste with a capacity exceeding 100 tonnes per day; and installations solely for the final disposal of radioactive waste. 'Schedule 2 projects' require environmental assessment if they are likely to have significant effects on the environment by virtue of factors such as their nature, size, or location. The criteria and applicable thresholds for 'Schedule 2 projects' are outlined in the Regulations. These include installations for the disposal of waste (unless included in Schedule 1) where, the disposal is by incineration, the area of the development exceeds 0.5 hectares or the installation is to be sited within 100 metres of any controlled waters. The Waste Planning Authority can also ask for an EIA for smaller scale applications where the proposal is in a sensitive location. Such as SSSI's, Areas of Outstanding Natural Beauty, in or near a designated area of nature conservation value or controlled waters, major or minor aquifers or sites in close proximity to drinking water supplies. The applicant has the right of appeal to the Secretary of State to determine whether an Environmental Statement is required.

RELATIONSHIP TO THE ENVIRONMENT AGENCY AND INTEGRATED POLLUTION PREVENTION AND CONTROL

5.124 As addressed in the introduction to the PPG 23 – Planning and Pollution Control (paragraph 1.31-1.37), the planning system controls the development and use of land in the public interest. It has an important part to play in determining the location of development which may give rise to pollution. The potential for pollution affecting the use of land is capable of being a material consideration in deciding whether to grant planning permission. The planning system should also control other development in proximity to potential sources of pollution. The role of the planning system focuses on whether the development itself is an acceptable use of land rather than the control of the processes or substances themselves. It also assumes that the pollution control regime will operate effectively. Planning authorities should not substitute their own judgement on pollution control issues for that of the bodies with the relevant expertise and the statutory responsibility for that control. Planning controls therefore complement the pollution control regime.

5.125 The dividing line between planning and pollution controls is not always clear-cut. Both seek to protect the environment but the scope of land-use planning is wider than pollution control. Matters which will be relevant to a waste management licence, site licence or PPC permit may also be material considerations to be taken into account

in planning decisions. The weight to be attached to such matters will depend upon the scope of the pollution control system in each particular case.

5.126 The Environment Agency controls air quality and odour emissions from combustion processes and will be operating the Integrated Pollution Prevention and Control Regulations. But its responsibilities do not extend to odour nuisance from open-air storage, handling or transport of waste materials or their products. Developers will be expected to discuss proposals with the planning and pollution control authorities in advance of submitting a planning application. The concurrent submission of applications for planning permission to the Waste Planning Authority and for waste licensing to the Environment Agency is encouraged. Such discussions should provide an opportunity to consider the principle of the development and to influence its design so that potential problems are removed or reduced. This should help the planning authority to avoid conflict between the pollution control authorisation and the planning requirements. Where a new building is proposed, or as part of a waste management development, a full detailed application will be required.

5.127 The perception of risk should not be material to the consideration of a planning application unless the land-use consequences of such perceptions can be clearly demonstrated. There may be circumstances where a development that is likely to satisfy pollution control requirements, may still be considered to present an unacceptable risk in planning terms, because of social, economic or environmental factors. Therefore, if there is the potential for pollution then, in consultation with the Environment Agency, the WPA will require appropriate information to be submitted by the applicant. However, it is not the role of the planning authority to undertake detailed risk assessment of releases into the environment. The Waste Planning Authority will not seek to use planning measures to control matters that are the proper concern of the pollution control authority except where planning interests can be clearly distinguished. Planning conditions would not normally be appropriate to control the level of emissions from a proposed development, where they are subject to pollution control. However, planning conditions may be needed to protect amenity or limit the hours of operation of a site, particularly where a site is exempt from a waste management license.

WASTE IMPLICATIONS OF DEVELOPMENT AND WASTE MINIMISATION

POLICY 36 - WASTE MINIMISATION

PROPOSALS FOR DEVELOPMENT REQUIRING PLANNING PERMISSION SHALL INCLUDE A SCHEME FOR SUSTAINABLE MANAGEMENT OF THE WASTE GENERATED BY THE DEVELOPMENT DURING CONSTRUCTION AND DURING SUBSEQUENT OCCUPATION. THE SCHEME SHALL INCLUDE MEASURES TO:

I. MINIMISE, RE-USE AND RECYCLE WASTE; AND

II. MINIMISE THE USE OF RAW MATERIALS; AND

III. MINIMISE THE POLLUTION POTENTIAL OF UNAVOIDABLE WASTE; AND

IV. DISPOSE OF UNAVOIDABLE WASTE IN AN ENVIRONMENTALLY ACCEPTABLE MANNER;

INITIATIVES TO REDUCE WASTE GENERATION WILL BE ENCOURAGED THROUGHOUT THE COUNTY.

5.128 The waste implications of all development should be considered at the earliest possible stage. As local planning authorities, the County and the District Councils

have a role to play in ensuring that new development contributes to the objectives of the Waste Strategy for Gloucestershire (June 1997). This policy is not just applicable to development by the County Council but to all development, as indicated in the National Waste Strategy (Waste Strategy 2000). The policy is part of the set of policies that make up the Development Plan as applied through Section 54A of the Town and Country Planning Act 1990 (as amended). Waste is not restricted by administrative boundaries and neither should consideration of it as part of any proposed development.

5.129 Waste generation and disposal implications of new development is a legitimate planning consideration. Planning Applications should contain a statement outlining waste generation and arrangements for minimisation, re-use, recycling, processing and disposal. For development requiring an Environmental Statement, the statement should include a detailed evaluation of the waste generation impact of the proposals.

5.130 This policy should be used in combination with other policies of the Development Plan. Waste minimisation does have a practical land use element to it. In relation to household waste, it is proposed that through conditions or a section 106 agreement all new housing developments where appropriate should be supplied with home composting bins and booklets on how to use them by the developer.

5.131 In relation to commercial and industrial wastes, developers should provide facilities within: business parks; industrial estates; retail parks; and science and technology parks; that treat and manage the majority of the waste produced internal to the site. This is intended to encourage the use of waste locally, stimulate new businesses, reduce traffic and is in line with the proximity principle. These facilities should be secured through condition or a section 106 agreement with the developer wherever possible, if not included in the original development proposal.

5.132 The Gloucestershire Waste Management Strategy (1997) promotes beneficial use of recyclable materials. Without adequate markets for the substantial volumes of recycled materials the strategy would be jeopardised. This partly depends on the private sector creating and marketing new and innovative products and clearly demonstrating that these recyclable materials can meet the standards and specifications achieved by established materials. This is particularly important for the construction industry. It also depends on developing a different attitude to using recycled materials and almost involves an element of 'positive discrimination' in favour of recycled products.

5.133 Minimising the volumes of waste we produce is the other half of the waste minimisation equation. It will mean that consumers will have to review issues such as manufacturing processes and purchasing policies. On the face of it this appears to have limited specific land use implications but it may create the need to modify or change the layout and design of existing or new development. In such cases, Local Planning Authorities should take a positive and sympathetic approach to such needs.

PROXIMITY TO SENSITIVE PROPERTIES AND LAND USES

POLICY 37 – PROXIMITY TO OTHER LAND USES

PROPOSALS FOR WASTE DEVELOPMENT WILL BE DETERMINED TAKING INTO ACCOUNT SUCH MATTERS AS THE EFFECT ON THE ENVIRONMENT, OCCUPANTS' AND USERS' AMENITY AND HEALTH, THE COUNTRYSIDE, THE TRADITIONAL LANDSCAPE CHARACTER OF GLOUCESTERSHIRE, THE LOCAL HIGHWAY NETWORK, ANY HAZARDOUS INSTALLATION OR

SUBSTANCE AND ANY ADVERSE CUMULATIVE EFFECT IN COMBINATION WITH OTHER DEVELOPMENT IN THE AREA. WHERE APPROPRIATE, SUITABLE AMELIORATIVE MEASURES SHALL BE INCORPORATED IN THE PROPOSALS TO MITIGATE, ATTENUATE AND CONTROL NOISE, DUST, LITTER, ODOUR, LANDFILL GAS, VERMIN, LEACHATE AND FLUE EMISSIONS.

5.134 The proximity of a waste management facility to other land uses is a critical issue. The use of buffer zones with woodland planting or landscaped earth bunding is commonly used to provide screening. Factors to be taken into account will include; the nature of the waste and the process involved; the direction of the prevailing wind; the amount of enclosure for the processes; use of odour neutralisation and minimisation; measures for dust control; vehicle sheeting; the number of persons affected by the development and its duration; the effects on amenity that pollution would cause; local topography providing natural screening; the extent of noise and vibration generated by the operations; the proposed hours of working; and the impact of flood-lighting. The effects on health are specifically addressed by the licensing agency when considering whether a waste management licence should be issued for the process and its terms and conditions.

5.135 Certain sites and pipelines are designated as dangerous substance establishments by virtue of the quantities of hazardous substance present. The siting of such installations will be subject to planning controls, for example under the Planning (Control of Major-Accident Hazards) Regulations 1999, with the objective in the long term to maintain appropriate distances between establishments and residential areas and areas of public use. In accordance with Department of Environment circular 11/92 the Local Authority will consult the Health and Safety Executive as appropriate, about the siting of any proposed dangerous substance establishments.

5.136 The area covered by this Local Plan already contains a number of dangerous substances establishments and major accident hazard pipelines. Whilst they are subject to stringent controls under existing health and safety legislation it is considered prudent to control the kinds of development permitted in the vicinity of these installations. For this reason the Planning Authority has been advised by the Health and Safety Executive of consultation distances for each of these installations. In determining whether or not to grant planning permission for a proposed development within these consultation distances the Planning Authority will consult the Health and Safety Executive about risks to the proposed development from the dangerous substance establishment in accordance with Department of Environment circular 11/92.

NOISE AND VIBRATION

5.137 The Government takes the view that during the working week, except in certain circumstances, the daytime nominal limit at noise-sensitive properties used as dwellings should normally be 55 dB $L_{Aeq,1h}$ (free field). This is roughly the equivalent of a person talking and generally agreed to be a tolerable noise level. The night-time nominal limit should be 42 dB $L_{Aeq,1h}$, (free field). Definitions of daytime and night-time may depend on local circumstances. Daytime would normally be defined as 0700-1900, and night-time as 1900-0700. The working week is generally regarded as being Monday to Saturday, with Sundays and Public/Bank Holidays normally regarded as periods of rest.

5.138 Complaints about noise from waste management facilities are likely to arise from an increase in noise levels attributable to the new development above the existing background (ambient) noise. A difference of around 5dB is of marginal significance

but when it approaches 10dB or higher above background noise then complaints are likely. Since background noise levels vary throughout a 24-hour period noise levels need to be assessed for separate periods comparable to the hours of operation of the proposed development. The main sources of noise will be from fixed and mobile processing plant; waste-handling operations involving discharge, compaction or loading; and the general movement of Heavy Goods Vehicle traffic.

5.139 For waste management operations noise attenuation measures are expected to be an integral part of any development. The aim should be to ensure that complaints are unlikely from the proposed facility. Measures to ensure that noise levels are constrained to a reasonable level could involve; specially designed plant and equipment; acoustically clad plant and equipment; siting plant and equipment away from noise sensitive properties; proposing better working practices by minimising double handling and using conveyors instead of loading shovels fitted with reversing alarms and bird scaring methods other than gas guns. It is not intended that the recommended noise limits become the minimum at which operations work. Operators are asked to take all reasonable steps they can to achieve quieter working.

AIRBORNE EMISSIONS

5.140 Airborne emissions from waste management development ranges from particulate such as dust to gases that may or may not be toxic, explosive and malodorous. Although the Environment Agency will largely be responsible for regulating atmospheric emissions, planning authorities will need to ensure that a proposed development takes account of specialist equipment and pollution control measures that will be required. Provided that air re-circulation and exhaust equipment is appropriately designed and regularly maintained then such emissions are unlikely to present significant environmental problems. Open storage of waste and waste residues will be discouraged. Exceptions may be made depending upon the location and proximity to other land uses. Vehicles used to transport wastes will generally need to be enclosed. Any abstraction of water that is required to cover these operations will require a license from the Environment Agency under the terms of the Water Resources Act 1991.

5.141 Airborne emissions from waste to energy recovery incineration plants are a particular source of concern despite stringent controls by the Environment Agency. Full account will need to be taken of any prevailing background pollution and any cumulative impact of additional emissions that may arise from the operation of the proposed development. Small-scale plants operating at capacities of less than one tonne per hour and ancillary to a primary use of land will be considered on their merits in the context of the criteria and policies of the Development Plan. Commercial clinical waste incinerators will be considered against the criteria and policies of the Development Plan. Large hospitals may generate significant quantities of clinical waste and could justify the operation of an incinerator within the hospital complex. Such proposals will not be resisted provided that waste is predominantly generated by the hospital concerned and that existing infrastructure can be utilised.

ODOURS

5.142 Pungent odours are frequently associated with sewage treatment works, to a lesser extent where wastes are being landfilled, or with composting if windrows are not rotated sufficiently. Solvent recovery may also give rise to odour where inadequate plant is used. Other processes such as anaerobic digestion incorporate odour control systems and will therefore only cause problems if the unit has to be opened for major maintenance works.

5.143 Odour nuisance tends to be very subjective and lacks a reliable scientific basis. This presents a difficulty for enforcement procedure. Where waste management facilities are likely to generate offensive odours then proposals must be enclosed, incorporating effective odour control measures.

HOURS OF OPERATION

POLICY 38 - HOURS OF OPERATION

THE WASTE PLANNING AUTHORITY WILL WHERE APPROPRIATE IMPOSE A CONDITION RESTRICTING HOURS OF OPERATION ON WASTE MANAGEMENT FACILITIES TO PROTECT AMENITY.

5.144 With the exception of industrial estates, or unless there are exceptional circumstances, all waste management facilities which may have an adverse effect on amenity will be subject to restrictions on their hours of operation. These will normally be 07.00 to 18.00 Monday to Friday and 07.00 to 13.00 on Saturday with no working on Sundays and Public Holidays other than for essential maintenance. To avoid queues of Heavy Goods Vehicles before 07.00 consideration will be given to the provision of parking off the public highway where appropriate. This should not be regarded as a precursor to the relaxation of the start time and there may be occasions where queuing provision is still desirable but a later start time will have to be imposed because of local circumstances.

TRANSPORT, TRAFFIC AND PUBLIC RIGHTS OF WAY

POLICY 39 – TRANSPORT

PROPOSALS FOR THE DEVELOPMENT OF WASTE MANAGEMENT FACILITIES WILL BE REQUIRED TO SHOW THAT, WHERE PRACTICABLE, FULL CONSIDERATION IS GIVEN TO THE TRANSPORT OF WASTE, BY:

- **RAIL;**
- **WATER; AND**
- **THROUGH PIPELINES;**

A TRANSPORT ASSESSMENT WILL BE REQUIRED TO ADDRESS THE TRAFFIC IMPACT AND THE ACCESSIBILITY OF THE PROPOSED DEVELOPMENT. THE SCOPE OF THE TRANSPORT ASSESSMENT MUST BE AGREED BEFOREHAND WITH THE WPA.

5.145 In order to reduce lorry movements on roads, alternative forms of waste transport will be encouraged, where this does not conflict with the criteria and policies of this Plan and where there is a net environmental gain. It is acknowledged that rail and water transport, are usually viable at the present over longer distances. However, the Waste Planning Authority is committed to dealing with waste arising in this County in accordance with the proximity principle, regional self-sufficiency and long term sustainability.

POLICY 40 – TRAFFIC

PROPOSALS FOR WASTE DEVELOPMENT WILL ONLY BE PERMITTED WHERE THE SITE ACCESS AND THE ADJACENT HIGHWAY NETWORK CAN SAFELY ACCOMMODATE THE TRAFFIC ASSOCIATED WITH THE

DEVELOPMENT, OR WHERE THE REQUIRED HIGHWAY IMPROVEMENTS WOULD NOT CAUSE UNACCEPTABLE HARM TO THE LOCAL ENVIRONMENT. A TRANSPORT ASSESSMENT WILL BE REQUIRED TO ADDRESS THE TRAFFIC GENERATION OF THE PROPOSED DEVELOPMENT AND ITS IMPACT ON THE LOCAL ROAD NETWORK.

5.146 This policy should ensure that no unacceptable impacts are made on the local community or the highway system. This includes environmental impacts or structural damage, issues of highway safety and congestion. Specially designated areas giving the public access to the countryside need particular care such as the Cotswold AONB and its rural roads generally, Offa's Dyke Path, the Thames Path, and the Cotswold Way. Proposed sites should be as close as possible to the strategic highway network with the routing of lorries along the preferred routes contained in the Gloucestershire Lorry Strategy. Where necessary, contributions towards highway improvements may be secured in order to make the proposal acceptable. Upgrading the standard of rural lanes and the construction of new haul routes to accommodate increased traffic, however, can result in landscape degradation and urbanisation of the countryside. Proposals should take account of the Local Transport Plan produced by the County Council and also the District Local Plans, which contain traffic policies. It is important that the Development Plan is read as a whole. Guidance for Transport Assessments is referred to in PPG13 and related documents. The degree of detail required will depend upon the scale of the proposal. The extent of consultation will also depend upon the roads likely to be affected.

POLICY 41 – PUBLIC RIGHTS OF WAY

PROPOSALS FOR WASTE DEVELOPMENT SHOULD INCLUDE, WHERE APPROPRIATE, PROPOSALS TO CREATE NEW PUBLIC RIGHTS OF WAY AND SHOULD SAFEGUARD EXISTING PUBLIC RIGHTS OF WAY BY INCORPORATING MEASURES TO SEGREGATE OR DIVERT THEM, PRIOR TO COMMENCING DEVELOPMENT. WHERE NEW PUBLIC RIGHTS OF WAY ARE CREATED, OPERATORS WILL BE ASKED TO ENTER INTO A MAINTENANCE AGREEMENT. THIS WILL PLACE A RESPONSIBILITY ON THE CURRENT AND ANY FUTURE LANDOWNER TO MANAGE THESE RIGHTS OF WAY.

5.147 The Waste Planning Authority will require applicants to show that rights of way will be protected from the adverse effects of proposed waste development and be properly maintained. Additional screening and landscaping or the temporary or permanent diversion of rights of way may be required depending on the development proposed. The opportunity for creating new rights of way should be considered and taken, where appropriate.

REINSTATEMENT AND AFTER-USE

POLICY 42 - REINSTATEMENT

IN CONSIDERING PROPOSALS FOR TEMPORARY WASTE DEVELOPMENT, THE WASTE PLANNING AUTHORITY REQUIRES REINSTATEMENT MEASURES FOR THE LAND INCLUDING APPROPRIATE AFTERCARE TO SECURE ACCEPTABLE AND SUSTAINABLE AFTER-USE BY A SET DATE. IN THE CASE OF RESTORATION TO AGRICULTURE, THE LAND SHOULD BE RETURNED TO A QUALITY EQUIVALENT TO OR BETTER THAN EXISTED BEFORE DEVELOPMENT COMMENCED. A GOOD ENVIRONMENTAL STANDARD WILL BE EXPECTED THAT WILL REFLECT THE CHARACTER OF THE LAND AS A VALUABLE RESOURCE. DETAILS OF REINSTATEMENT REQUIREMENTS WILL

BE DETERMINED BY THE CIRCUMSTANCES PREVAILING AT THE TIME OF THE PLANNING DECISION AND WHEN ANY LATER APPLICATIONS FOR REVIEW ARE CONSIDERED.

5.148 Not all waste development is of a permanent nature. Where development is proposed that is temporary, the Waste Planning Authority will ensure that the restoration proposed is achievable at the time of consideration. It is acknowledged that technology and conditions may change over time, and therefore, it may be necessary for operators to look again at a more sustainable after-use for a site during the life of a planning permission. Where best and most versatile agricultural land is being restored, the methods used in the reclamation should enable the land to retain its longer-term capability to be farmed to its land classification potential.

POLICY 43 – AFTER USE

THE WASTE PLANNING AUTHORITY WILL ENCOURAGE AFTER-USES ON WASTE MANAGEMENT SITES WHICH WILL:

- **BENEFIT THE LOCAL COMMUNITY,**
- **DIVERSIFY THE LOCAL ECONOMY,**
- **IMPROVE AMENITIES,**
- **ENHANCE BIODIVERSITY AND WILDLIFE HABITATS, LANDSCAPE FEATURES, THE LOCAL ENVIRONMENT, OR OTHER SITES OF GEOLOGICAL OR SCIENTIFIC INTEREST, OR**
- **PROVIDE WOODLAND AREAS,**

WHERE THIS DOES NOT CONFLICT WITH OTHER POLICIES, AND THE BIODIVERSITY ACTION PLAN.

5.149 In maximising the environmental and public benefit from restoration, proposals will be encouraged which provide a positive enhancement to wildlife habitats and other sites of scientific and geological interest. This will involve management in the long term, and may involve agreements on access for educational or research bodies to assist and advise on management and to monitor and collect data. It may be appropriate to improve public access in order to widen the benefit to the community.

5.150 In Gloucestershire there is growing pressure on the biodiversity of the County. Opportunities to enhance nature conservation should accord with the County's Biodiversity Action Plan and be in accordance with the principles, criteria and policies of the Development Plan.

SAFEGUARDING OF AIRPORTS

POLICY 44 - AIRPORT SAFEGUARDING

PROPOSALS FOR WASTE DEVELOPMENT WITHIN THE SAFEGUARDING AREAS OF AIRPORTS AND AIRFIELDS WILL ONLY BE PERMITTED WHERE IT CAN BE ADEQUATELY DEMONSTRATED THAT THE DEVELOPMENT AND THE NATURE OF THE WASTE MATERIALS INVOLVED WILL NOT CONSTITUTE A HAZARD TO AIR TRAFFIC.

5.151 Development within the safeguarding areas of major airports is subject to mandatory consultation with the Civil Aviation Authority or Ministry of Defence. Where safeguarding areas are not defined, the planning authority is required to consult the airport management on development within a 13Km radius of the airport. Any structure more than 91.4 metres above ground level must have aircraft warning lights

fitted. Incinerator chimneys and degradable (non-hazardous) waste landfill sites with potential to attract scavenging gulls may constitute hazards to aircraft safety and will need to be assessed against the criteria and policies of this Plan.

PLANNING OBLIGATIONS

POLICY 45 – PLANNING OBLIGATIONS

THE WASTE PLANNING AUTHORITY WILL SEEK TO ENTER INTO PLANNING OBLIGATIONS WITH WASTE OPERATORS TO MITIGATE THE IMPACTS OF WASTE AND WASTE DEVELOPMENT. THE FOLLOWING MAY BE CONSIDERED APPROPRIATE MATTERS FOR INCLUSION IN A PLANNING OBLIGATION WHERE RELATED TO THE DEVELOPMENT PROPOSAL:

- **HIGHWAYS AND ACCESS IMPROVEMENT AND HIGHWAY MAINTENANCE,**
- **TRAFFIC WEIGHT RESTRICTIONS,**
- **ENVIRONMENTAL PROTECTION AND ENHANCEMENT [INCLUDING LANDSCAPING, HABITAT AND SPECIES PROTECTION AND CREATION],**
- **PROTECTION AND/OR REPLACEMENT OF LOCAL, REGIONAL AND NATIONAL SITES OF ACKNOWLEDGED IMPORTANCE,**
- **REPLACEMENT OF IMPORTANT ENVIRONMENTAL AND LANDSCAPE FEATURES,**
- **PROTECTION OF LOCAL AMENITY,**
- **WASTE AWARENESS AND PUBLICITY CAMPAIGNS FOR THE LOCAL COMMUNITY,**
- **LOCAL WASTE MINIMISATION PROJECTS,**
- **REPLACEMENT OF LOCAL COMMUNITY FACILITIES, FOR EXAMPLE OPEN SPACE, SPORTS AND RECREATION FACILITIES,**
- **PROTECTION OF OTHER NATURAL RESOURCES, FOR EXAMPLE, THE WATER ENVIRONMENT,**
- **RESTORATION AND LONG-TERM MANAGEMENT OF SITE,**
- **AFTER-USE DEVELOPMENT, AND**
- **MONITORING.**

5.152 Waste development may not only affect the immediate area but also have wider environmental impacts. Planning obligations can address issues, which cannot be resolved by conditions, and may allow the development to go ahead where it would otherwise be refused. The nature of waste development may give rise to a requirement for planning obligations that make provision for highways and access improvements, ensure measures to protect and enhance the local environment and consider any other matters which may arise within a future area of waste development. Seeking environmental benefits and compensatory measures through planning obligations is consistent with the Waste Planning Authorities objective to secure sustainable waste management for Gloucestershire. The Waste Planning Authority recognises that benefits derived from planning obligations must relate directly to the proposed development, and therefore the following tests of Circular 1/97 'Planning Obligations' are to be met, in that where planning obligations are sought they should be:

(i) necessary;
(ii) relevant to planning;
(iii) directly related to the proposed development;
(iv) fairly and reasonably related in scale and kind to the proposed development;
(v) reasonable in all other respects.

5.153 Where highways issues arise that might prejudice a proposal for waste development, the Waste Planning Authority may enter into planning obligations with the operators for the traffic management. This may include new highways works and road maintenance directly related to the development.

5.154 Lorry movements should generally be restricted to the primary road network. The Waste Planning Authority is aware of the planning control difficulties when restricting the movement of lorries leaving and visiting waste sites. However, voluntary or formal agreements can be sought to provide for traffic management solutions. The Waste Planning Authority may also seek to impose weight restrictions on vulnerable routes in the network.

5.155 Planning obligations will be considered as a means to mitigate other harmful affects of waste development. Reasonable measures will be secured to limit or offset the impacts of the development on sites of acknowledged nature conservation, landscape or historic importance.

MONITORING, LIAISON AND ENFORCEMENT

5.156 The Waste Planning Authority will ensure that all waste development is carefully monitored and where necessary, appropriate enforcement action will be carried out. It is in the interest of the waste operator to work strictly in accordance with the planning permission and attached conditions and/or planning agreements. This should ensure that formal enforcement action will not often be necessary and the relationship between the waste operator and the local community is not compromised. The Waste Planning Authority will carry out the appropriate enforcement action in accordance with the provision of the Town and Country Planning Act 1990 as amended.

5.157 Circular 10/97 "Enforcing Planning Control: Legislative Provisions and Procedural Requirements" and Planning Policy Guidance Note 18 "Enforcing Planning Control" [PPG18] provides advice on the scope for enforcement action open to local planning authorities. "Enforcing Planning Control: Good Practice Guide for Local Planning Authorities" indicates that the Waste Planning Authority should have a policy statement for enforcement matters included in Development Plans. The Authority has prepared and approved an Enforcement and Monitoring Policy, which sets out Gloucestershire County Council's approach to the enforcement and monitoring of minerals and waste development in the County.

INDUSTRY SELF REGULATION

5.158 Monitoring is an important part of the planning process to ensure that waste development is undertaken in accordance with the conditions attached to a planning permission. Effective monitoring can identify and avert potential problems before they arise and help minimise the need for enforcement action. It is essential for ensuring best practice within the industry, and above all it is essential for fostering a good working relationship between the Waste Planning Authority, local communities and the waste industry. The County Council's Enforcement and Monitoring Policy identifies its approach to the monitoring of waste sites.

5.159 Nonetheless monitoring is not simply a matter for the Waste Planning Authority but should also be a primary concern of the industry and individual operator. Baseline monitoring and data are usually required as part of the information submitted with an

application for planning permission and in some cases this will form part of an Environmental Assessment. Once undertaken this information should be used as the basis for subsequent monitoring to measure and assess factors such as noise, dust, vibration and traffic. More importantly, it should provide a basis on which operators can monitor their own performance and identify trends. This may identify problems or breaches of planning conditions so that these can be effectively addressed before or when they arise. It is the view of the Waste Planning Authority that all responsible operators should adopt such an approach to self-auditing and monitoring.

5.160 If self-auditing and monitoring systems were adopted, it would be in addition to and not replace any monitoring carried out by the Waste Planning Authority. Operators would be advised not to undertake such monitoring until the scope of the work involved had been agreed with the Waste Planning Authority in consultation with other relevant agencies (such as the Environment Agency). This would ensure that investigations are concentrated in the right areas, thus avoiding wasted effort.

5.161 The measures and powers open to the Waste Planning Authority to remedy breaches of planning control, including both informal and formal enforcement action, and the requirements for self-monitoring by industry of Waste sites are identified in the County Council's Enforcement and Monitoring Policy.

LIAISON COMMITTEES

5.162 Where a proposal for waste development is permitted, a liaison committee provides a useful forum, which ensures that the local community is kept up-to-date on the progress of the site. This also allows constructive discussion about concerns or problems, so they can be resolved to the satisfaction of the local community and the waste operator. Such measures are in addition to monitoring which will be carried out by the Waste Planning Authority to ensure that the site is worked and restored according to the relevant conditions of the planning permission and any planning obligations. The Waste Planning Authority will encourage such initiatives for waste management facilities in Gloucestershire.

CHAPTER 6: MONITORING AND REVIEW

INTRODUCTION

6.0 The monitoring and review of this Plan is an essential part of achieving a more sustainable waste management system in Gloucestershire. Monitoring implementation, and collating information to assess its effectiveness is fundamental to this process. Reviewing the Plan keeps it up to date and maintains its flexibility and validity, and aids its implementation.

MONITORING

6.1 The County Council, as the statutory Waste Planning Authority, will implement the Waste Local Plan. Planning applications will be determined in accordance with the policies and provisions of the Development Plan, and the Waste Local Plan is part of this. The land use planning system as a whole has an important role to play in achieving sustainable waste management. All developments need to address waste management issues. Therefore local planning authorities and developers will also aid the implementation of the Waste Local Plan.

6.2 Monitoring information will be collected and used by the County Council from a variety of sources to establish the effectiveness of policies in meeting the Geographic Statement (see Chapter 2). By assessing the monitoring information against the Geographic Statement, the degree to which the Plan is effective in achieving its Key Objectives and Aim can be evaluated. Table 6.1 provides examples of key monitoring information that will be collated and used to assess each section of the Geographic Statement, and hence the extent to which the Key Objectives are achieved.

6.3 The Waste Planning Authority will publish the results of the Plan monitoring process on a regular basis. The concept of 'Best Value' introduced by the Local Government Act 1999 sets a performance indicator at a national level in relation to Development Plans. It requires a comprehensive set of indicators and targets based on all the main policy areas of the Plan. The Waste Local Plan specifies targets and monitoring information; indicators will be developed further in the review of the Plan.

Table 6.1: The Waste Planning Authority's Key Monitoring Tasks

Monitoring Information	Geographic Statement	Key Objective
Survey waste data and information, and waste development likely to change over time	All Sections	All Objectives
Survey 'exempt' waste management sites to complement the Environment Agency's provision of data on 'licensed' sites and waste arisings.	B, C, D, E, G, H, I, J	1, 2, 4
Maintain a 'capacity study' of the theoretical capacity of permissions granted to recycle, compost and recover waste and waste sent for final disposal (landfill/landraise), relative to County waste arisings.	A, B, C, D, E, G, H, I, J	2, 4,12
Locational analysis of waste arisings and waste management facilities, to evaluate the integration of waste management sites with sources of waste, transport modes, markets and end users, other waste facilities and reprocessing industries across the County.	A, B, C, D, E, F, G, H, I, J	1, 4, 10, 11, 12
Analysis of degradable, inert and special waste categories, particularly the impact of waste reduction, re-use, recycling,	B, C, D, E	1, 2, 4

composting and disposal, compared to the targets set out in the Plan and "Waste Strategy 2000".		
Examine development control and enforcement activity to assess policy effectiveness and relevance. Monitor planning permissions, planning refusals, planning appeals, 'called in' applications, breaches of planning control and enforcement cases, dealt with by the Waste Planning Authority.	All Sections	4, 7, 8, 9, 10,11
Monitor the application of Best Practicable Environmental Option to ensure a consistent approach to implement policy and help develop a more detailed methodology.	All Sections	1, 2, 3, 4, 7
Monitor the extent to which District Councils use and implement policies to secure sustainable waste management practices in all forms of development.	H, J	1, 2, 6
Monitor the social impact of waste management development by the analysis of planning objections, the degree of accessibility to facilities, and the local impact of waste management e.g. complaints, and general awareness and education. Also monitor the health impacts of waste management development by using information made available by the Gloucestershire Health Authority NHS, the Department of Health and the Environment Agency.	B, C, D, F, G, H, I, J, K	1, 3, 8
Monitor the environmental impact of waste management on nature conservation, biodiversity, landscape, archaeology, historic environment, agriculture, water, transport and re-use of previously developed land. Traffic generation and site access associated with waste developments will be monitored.	E, G, J, K	3, 7, 8, 9,10
Monitor the economic impact of waste management development, in terms of an estimate of direct and indirect jobs, and associated investment.	A, B, C, D, E, F, G	2, 5

REVIEW

6.4 The rapidly changing nature of waste management and the impact of evolving European, National and Regional policy and guidance will necessitate an early review of this Plan. It is important to keep the Plan up to date to maintain its flexibility and usability due to its status in the determination of planning applications.

6.5 The County Council intends to begin the review process immediately after the adoption of this Plan and thereafter as necessary, but the period should be at least every 5 years. There will be public consultation on the reviews of the Plan. The monitoring information will help inform the review of the Plan. For example, it can be used to identify changes in the County relating to waste and waste development, assess policy performance and re-evaluate site allocations.

6.6 The Strategic Environmental Appraisal of the Plan will be repeated at regular intervals as part of the monitoring and review process. The Strategic Environmental Appraisal is an assessment of the Plan's policies and performance against a comprehensive set of criteria. The result of the appraisal provides an indication of how the policies perform against a comprehensive set of environmental and sustainability criteria. As with the review of the Plan this will be carried out at a minimum 5 year period.

6.7 Overall, the County Council wishes to ensure that the Waste Local Plan provides a clear and effective framework to guide development towards the aim of an integrated, more sustainable waste management system in Gloucestershire. This can only be achieved by a commitment to continual monitoring and review.

GLOSSARY

A

AERATION - Exposure to the action of air.

AEROBIC DECOMPOSITION - is a biodegradable process carried out by bacteria in warm, well-aerated conditions.

AFTERCARE - The maintenance work needed to ensure that a restored landfill site does not produce environmental problems. The maintenance work is carried out after replacement of the soil to bring the land up to the required standard for the after-use, and may include cultivating, fertilising, planting, drainage and otherwise treating the land.

AFTER USE - The use to which a landfill site is put following its restoration.

AGRICULTURAL WASTE - A general term used to cover animal excreta, litter, straw waste, carcasses and silage liquors.

AGGREGATE – Inert particulate matter which is suitable for use (on its own or with the addition of cement or bituminous material) in construction as concrete, mortar, finishes, road stone, asphalt, or drainage course, or for use as constructional fill or railway ballast (DETR).

AMENITY - A land use which is not productive agriculture, forestry or industrial development; can include formal and informal recreation and nature conservation.

ANAEROBIC DIGESTION - The biological degradation of organic wastes by micro-organisms in an oxygen-free atmosphere to produce simpler and less offensive organic compounds; commonly a carbon dioxide/methane mixture (biogas) and a stabilised residue. The biogas may be collected and used as a fuel either for electricity generation or to provide heat. This is the process which takes place within landfill and is responsible for generation of landfill gas. To date, commercial processes are mostly applied to the treatment of sewage sludge and cattle slurry.

AQUIFER - A geological stratum or formation which contains exploitable resources of water and is capable of either storing or transmitting water.

AREA OF OUTSTANDING NATURAL BEAUTY (AONB) - These are statutory designations under the National Parks and Access to the Countryside Act 1949. The primary objective is the conservation of the natural beauty of the landscape.

ARISINGS - See **WASTE ARISINGS**

B

BACKACTOR - An excavator mainly used to place soil in landfill restoration and to compact refuse.

BACKFILL - The material used for or the act of refilling an excavation.

BALE - To compress solid wastes or recoverable material, using a baling machine or baler, into a block having suitable density and form to allow it to be handled

subsequently as a unit. Specially designed high density baling machines can produce bales having a density of 0.9-1.0 t/m^3.

BEATING-UP - Replacing the dead and dying plants in a planting scheme.

BEST PRACTICABLE ENVIRONMENTAL OPTION (BPEO) – The outcome of a systematic consultative and decision making procedure which emphasises the protection and conservation of the environment across land, air and water. The procedure establishes, for a given set of objectives, the option that provides the most benefits of least damage to the environment as a whole, at acceptable cost, in the long term as well as in the short term.

BIOCHEMICAL ATTENUATION - The reduction (particularly in leachate) of polluting species by biochemical reaction.

BIODEGRADATION - The ability of natural decay processes to break down man-made and natural compounds to their constituent elements and compounds, for assimilation in, and by, the biological renewal cycles.

BIODIVERSITY - Put simply it is every living thing we see around us in the natural world.

BIODIVERSITY ACTION PLAN – The Gloucestershire Biodiversity Working Group have produced a document 'A Biodiversity Challenge for Gloucestershire'(March 1998) which forms the Foundation for a Biodiversity Action Plan for the County.

BIOREACTIVE WASTES - Wastes which are capable of undergoing biological degradation.

BIOTECHNOLOGY - The exploitation of biological processes for industrial and other purposes.

BIRD STRIKE - Damage caused by birds striking the fuselage or entering the engine of an aircraft.

BIO-AEROSOLS - Airborne micro organisms

BOD (**BIOCHEMICAL OXYGEN DEMAND)** - A measure of the amount of material present in water which can be readily oxidised by micro-organisms and is thus a measure of the power of that material to take up the oxygen in water supplies.

BOREHOLE - A hole drilled in the ground or landfill in order to obtain samples of the geological strata, wastes or liquids. Also used as a means of venting or withdrawing gas from landfills (see **MONITORING**).

BRING SYSTEM - Where facilities are provided at supermarkets and other locations visited regularly by householders, in which they may deposit recyclable wastes.

BROWNFIELD SITE - a site previously affected by development which has been abandoned and may be in a derelict condition.

BUFFER ZONE - (1) A zone within or beneath a landfill where acid or alkaline substances entering that zone can be neutralised by material already present.

(2) An area of land designated to distance landfill sites from adjacent land.

BULK DENSITY - The density of a material expressed as the ratio of unit mass to unit volume, including voids.

BUND - An embankment, usually of clay or soil used to screen sensitive development from noise or visual intrusions.

C

CAPILLARY WATER - Water, present in land above the water table, which is held between and around soil particles by capillary attraction

CAPPING - The covering of a landfill with impervious material to inhibit penetration by water.

CATCHMENT AREA - (1) The area from which solid waste is collected for a specific landfill or transfer station. (2) The area from which water drains into a reservoir, river or lake.

CELL - The compartment within a landfill in which waste is deposited. The cell has physical boundaries which may be a low permeability base, a bund wall and low permeability cover.

CELLULOSE - Organic material present in wood, cotton and other fibrous materials.

CHEMICAL FIXATION - See **SOLIDIFICATION**.

CIVIC AMENITY SITE – 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.

COMBINED HEAT POWER SCHEME (CHP) – 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.

COMPACTING - Increasing the density of solid waste in landfills by the repeated passage of heavy machinery over its surface. Also refers to baling machines and stationary compactors for use in compacting solid waste into containers.

COMMERCIAL WASTE - Waste from premises used mainly for trade, business, sport, recreation or entertainment. (1990 EPA 5.75 (7)).

COMPOST - Organic matter decomposed aerobically and used as a fertiliser or soil conditioner.

CONDITIONER (for soil) - Material added to soil to improve its structure and thereby its ability to support vegetation.

CONSERVATION AREA – As designated under section 69 of the listed Buildings Act 1990 which states that;
Every Local Planning Authority –

a) Shall from time to time determine which parts of their area are areas of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance, and
b) Shall designate those areas as conservation areas.

CONTAINMENT SITE - Landfill site where leachate into the environment is contained. Polluting components in wastes are retained within such landfills for sufficient time to allow biodegradation and attenuation processes to have occurred; thus preventing the escape of polluting species at unacceptable concentration.

CONTAMINATION - Contamination is the adulteration (especially by pollution) of a material to such a degree as to render it unfit for its intended purpose.

CONTROLLED LANDFILL - is a disposal practice where wastes are deposited in an orderly planned manner at a site licensed under the Environmental Protection Act 1990.

CONTROLLED WASTE – Waste consisting of household, industrial, commercial and special waste. Defined under the Environmental Protection Act 1990, section 75(2), and includes:

a) any substance which constitutes a scrap material or an effluent or other unwanted surplus substance arising from the application of any process; and

b) any substance or article which requires to be disposed of as being broken, worn out, contaminated or otherwise spoiled,

but does not include a substance which is an explosive within the meaning of the Explosives Act 1875.

CO-DISPOSAL - the landfilling of both industrial and household wastes together in such a way that benefit is derived from biodegradation processes to produce relatively non-polluting products.

CONVERSION FACTORS
Inert waste/Category 1: 1 m^3 accommodates 1.50 tonnes
Non-Inert/Category 2: 1 m^3 accommodates 1 tonne

COVER - Material used to cover solid wastes deposited in landfills. Daily cover is used to cover each lift or layer at the end of each working day to prevent odours, windblown litter, insect or rodent infestation. Intermediate cover refers to cover material deposited over wastes at the end of a particular phase of landfilling. Final cover is the layer or layers of material placed on the surface of a landfill during its restoration.

D

DECOMPOSITION - Breakdown of matter into more simple molecules. Decomposition may be caused by physical, chemical or microbiological action.

DEGRADABLE WASTE - Waste which will quickly or slowly biodegrade or decompose, releasing environmental pollutants. Types of material include wood and wood products; paper; plasterboard; ash; concrete, plastic; leather; rubber; textiles; cardboard; vegetable matter; food processing wastes; sewage sludge; metals and chemical combinations thereof; coke; coal; mica; diatomaceous earth; slag; boilerscale; soap; cellulose, floor sweepings; sacks; electrical fittings; and appliances; machinery; cosmetic products; tarred materials; carbon; ebonite; pottery; china; enamels; abrasives; trees; bushes; grass; flowers and other vegetation.

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

DEWATERING - The removal of water from sludges or pulps by filtering, centrifuging or other means.

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

DEVELOPMENT PLAN – In Gloucestershire this comprises the Structure Plan, District Local Plans, Waste Local Plan and Minerals Local Plan.

DIFFICULT WASTE - Waste difficult to dispose of and which might require special site management to avoid nuisance or pollution.

DILUTE AND DISPERSE - Formerly used to describe unsealed landfill sites at which relatively rapid leachate migration could occur.

DIOXINS(PCDD) – A generic name given to a group of toxic organochlorine compounds (polychlorinated dibenzo-p-dioxin) that can be naturally occurring or man-made. There are around 75 different types of dioxin.

DIRECTIVE WASTE - means any substance or object set out in Part II of Schedule 4 to the Waste Management Licensing Regulations 1994 which the producer or the person in possession of it discards or intends or its required to discard but with the exception of anything excluded from the scope of the Directive by Article 2 of the Directive. (DoE Circular 11/94 Annex 2.)

DISTRICT LOCAL PLAN – Part of the Development Plan, prepared and maintained by the local District/Borough Councils to cover their area for land use planning purposes.

DOMESTIC WASTE - Waste or refuse that arises from private houses; synonymous with household waste.

DOMING - (1) In a landfill context, doming is the laying of waste and/or cover material (intermediate and final) such that the centre of the covered area is higher than the periphery to assist surface water run-off and thus minimise water ingress.
(2) The water table within a landfill may present a domed configuration as a result of the disposal of large quantities of liquid waste associated with the variable permeability of the landfilled material.

DUST - Fine particles of solid materials ranging in size from 1.75 μm diameter (see British Standard 3405) capable of being suspended in air and settling only slowly under the influence of gravity.

E

EFFLUENT - (1) The fluid discharged or emitted to the external environment (2) liquid waste arising from a process.

EMISSION - A material which is expelled or released to the environment. Usually applied to gaseous or odorous discharges to atmosphere.

ENERGY FROM WASTE - 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 – An amalgamation of the roles of the National Rivers Authority, Her Majesty's Inspectorate of Pollution and the Waste Regulation Authorities into a single body.

ENVIRONMENTAL GROUP – Political lobbyists whose main focus is the 'green or environmental issues'.

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

ENVIRONMENTAL STATEMENT – A systematic and comprehensive analysis of the environmental impact of a proposed development presented in non-technical form for public scrutiny.

EXEMPT SITES – Sites requiring to be registered under EPA but do not require a licence under the same act. Such sites may still require planning.

EXOTHERMIC - A chemical or biological reaction which generates heat.

F

FILL - See **LANDFILL**.

FLY TIPPING - The illegal dumping of waste.

G

GAS BARRIER - Any device used to minimise the lateral flow of gas from a landfill site.

GEOGRAPHIC STATEMENT – this takes into account the Guiding Principles and explains how they will be applied in land use terms. Refer to 'Development Plans: A Good Practice Guide' (DoE 1992).

GREENFIELD SITE - a site previously unaffected by built development.

GROUND COVER - Plants grown to prevent or reduce soil erosion, and to remove excess moisture.

GROUNDWATER - Water held within soil or rocks below the ground surface but is usually taken to mean water in the saturated zone.

H

HAMMERMILL - A high-speed machine in which waste is disintegrated into smaller pieces by fixed or swinging metal hammers.

HARDSTANDING - A concrete, asphalted or other hard surfaced area on which vehicles or materials can be parked, cleaned or stored. Only an impermeable hardstanding not hardcore or waste may be stored/sorted (e.g. Waste Transfer Station)

HAUL ROUTES - An internal site road used by vehicles delivering materials to the site or taking it away.

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 (q.v.) 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.

HEAVY METALS - A term for those ferrous and non-ferrous metals having a density greater than about 4 which possess properties which may be hazardous in the environment. The term usually includes the metals copper, nickel, zinc, chromium, cadmium, mercury, lead, arsenic, and may include selenium and others.

HOUSEHOLD WASTE - Waste from a domestic property, caravan, residential home or from premises forming part of a university or school or other educational establishment; premises forming part of a hospital or nursing home. (1990 EPA - 5.75 (5)).

HOUSEHOLD WASTE RECYCLING CENTRE (HWRC)- a site operated by the County Council in accordance with the Environmental Protection Act 1990 to which the public may deliver non-business waste and at which a range of materials (e.g. metals, paper, glass, engine oil) is recovered for recycling.

HYDROGEOLOGY – The study of water below ground.

I

INDUSTRIAL WASTE - Waste from any of the following: any factory; premises for the provision to the public of transport services (land, water and air); premises for the purpose of connection of the supply to the public of gas, water, electricity or provision of sewerage services; premises for provision to the public of postal or telecommunication services (1990 EPA 5.75 (6)).

INERT WASTE - Waste which will not biodegrade or decompose (or will only do so at a very slow rate). Types of materials include uncontaminated top soil; subsoil; clay; sand; brickwork; stone; silica; and glass.

INPUT - Amount of waste imported into a landfill during a given period of time.

IPPC - Integrated Pollution Prevention and Control

K

KERBSIDE COLLECTION - Where materials are segregated by householders into various categories for collection from the doorstep or kerbside.

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

L

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

LANDFILL GAS - A by-product from the digestion by anaerobic bacteria of putrescible matter present in waste deposited on landfill sites. The gas is predominantly methane (65%) together with carbon dioxide (35%) and trace concentrations of a range of other vapours and gases.

LANDFORM - The profile of the completed surface of a landfill.

LANDRAISING - Deposition of waste onto unworked ground or onto land previously filled to original ground level.

LANDSPREADING - The application of wastes or sludges to the land and thereby facilitating their degradation and incorporation into the top layer of soil. Fertiliser is usually added to assist aerobic breakdown.

LEACHATE - Liquid which seeps through a landfill, and by so doing extracts substances from the deposited waste.

LEACHATE RECIRCULATION - the practice of returning leachate to the upper layers of a landfill, from which it has been abstracted, usually by direct spraying on to its surface.

LEACHATE TREATMENT - A process to reduce the polluting potential of leachate. Such processes can include leachate recirculation, spray irrigation over adjacent grassland and biological and physio-chemical processes.

LICENSING - See **WASTE MANAGEMENT LICENCE and IPPC**

LINER - A natural or synthetic membrane material, and used to line the base and sides of a landfill site to prevent leachate seeping into surrounding geological strata.

LITTER SCREEN - A moveable screen used on landfill sites to catch litter and prevent its escape from the site.

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.

M

MACRO-BIODEGRADATION - Use of larger animals than Bacteria to break down waste e.g. worms.

MEMBRANE - See **LINER.**

METHANE - CH_4, a colourless, odourless, flammable gas, formed during the anaerobic decomposition of putrescible matter. It forms an explosive mixture in the range 5.15% methane in air.

MICRO-BIODEGRADATION - Use of bacteria to break down waste (see Anaerobic Digestion)

MILL - A mechanical device used to reduce the size of solid waste to small particles (see **HAMMERMILL, PULVERISE**).

MINERALS LOCAL PLAN – A written statement formulating the Authority's detailed policies for its area in respect of development consisting of the winning and working of minerals or involving the depositing of mineral waste.

MINIMISATION - See **REDUCTION**

MOISTURE CONTENT - Weight of moisture (usually water) contained in a sample of waste or soil. Usually determined by drying the sample at 105^{o} C to constant weight.

MONITORING - A continuous or regular periodic check to determine the environmental impact of landfill operations to ensure compliance with planning conditions and other statutory environmental safety requirements.

MUNICIPAL WASTE - Municipal waste is that 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.

MULCHING - See **LANDSPREADING**.

N

NATIONAL RIVERS AUTHORITY (NRA) - Authority charged (inter alia) with the responsibility properly to manage the nations water resources, and to protect these resources from pollution.

NEGATIVE AIR PRESSURE REGIME – Negative air pressure systems are used in buildings to create an imbalance of air pressure such that dust and odour arising from the operations is kept within the buildings. It can be filtered through internal systems which relieves some of the impact on the surrounding amenities.

NON-FERROUS METALS - Metals which do not contain iron.

NON-FOSSIL FUEL OBLIGATION (NFFO)- A requirement on regional electricity companies in England and Wales to purchase from specified producers, at a premium price, for a fixed period, specified amounts of electricity generated by methods other than burning fossil fuels.

NON-INERT WASTE - See **DEGRADABLE WASTE**

NON-STATUTORY – Not required by statute.

NUTRIENTS - Materials used by plants and micro-organisms to sustain life.

O

ODOUR - The (unpleasant) smell of a material or collection of materials. The characteristic odour of landfill gas is due mainly to alkyl benzenes and limonene, occasionally and additionally associated with esters and organo-sulphur compounds.

ODOUR THRESHOLD - The lowest concentration at which an odour can be detected by the human nose.

OPERATOR - The person or company who is responsible for using or maintaining the landfill, together with his agents and contractors.

OPERATIONAL SITE - A site still in use; or a site closed temporarily, for whatever reason.

ORGANIC (compound) - A substance containing usually two or more carbon atoms in which carbon-carbon atom chains are formed.

OVERBURDEN - The geological material from which the soil has formed; sometimes referred to as soil parent material.

OXIDATION - The loss of electrons by an atom or ion in a chemical reaction. Originally the term simply meant the addition of oxygen.

P

PATHOGEN - A micro-organism responsible for disease.

PERCHED WATER - An accumulation of liquid at a level above that of the adjacent water table. Often caused by zones of low permeability strata (or wastes) which inhibit downward percolation.

PERCOLATE - The flow of liquid through material by gravitational effects.

PERIPHERAL DRAIN - A drain provided around the boundary of a site.

PERMEABILITY - A measure of the rate at which a fluid will pass through a medium. The co-efficient of permeability of a given fluid is an expression of the rate of flow through unit area and thickness under unit differential pressure at a given temperature. Soils may be referred to as slowly permeable.

PFA - See **Pulverised Fuel Ash**

PHASING - The planned development, operation and restoration of a site in a series of separate, though usually adjacent, areas. The phase of a landfill is a prepared, operational, temporarily restored or restored area, usually distinguished from other areas in space or time, or both.

PLANNING CONDITION – Condition attached to a planning permission.

PLANNING OBLIGATION (S. 106 OBLIGATION) – An obligation , by agreement or otherwise, restricting the development or use of land in any specified way; requiring specified operations or activities to be carried out in, on, under or over land; requiring a sum or sums to be paid to the authority.

PLANNING POLICY GUIDANCE NOTES (PPG) – Set out the Governments policies on different aspects of planning. They range from key objectives, operational principles to guidance and advice on more specific issues. It is expected that local planning authorities must take their content into account in preparing structure and local plans.

POLLUTION, POLLUTANT - The addition of materials or energy to an existing environmental system to the extent that undesirable changes are produced directly or indirectly in that system. A pollutant is a material or type of energy whose introduction into an environmental system leads to pollution.

POST-CLOSURE MANAGEMENT - Works done to maintain pollution control systems and monitor their effectiveness during the post-closure period.

POST-CLOSURE PERIOD - The period which follows cessation of landfilling before the certificate of completion is issued.

PROXIMITY PRINCIPLE – The minimisation of transport distances, and therefore environmental and economic cost, by situating treatment, recovery and/or disposal facilities as close as possible to the origin of the waste arisings. The proximity principle can make the link between the waste hierarchy and BPEO. Where the BPEO for a waste stream is towards the lower end of the waste hierarchy, this can

often be because the environmental impact or cost of transport to a distant reprocessing facility or market outweighs the benefit of recovering the waste. Planners should consider the mode of transport and not just the distance; a longer journey by river or rail may be environmentally preferable to a shorter road journey.

PULVERISE - To break solid waste into small pieces. A pulveriser or fragmentiser is a machine used for grinding, shredding or crushing waste or other materials to reduce its volume.

PULVERISED FUEL ASH (PFA) - Ash resulting from the combustion of coal in power stations.

PUTRESCIBLE - Waste readily able to be decomposed by bacterial action. Offensive odours usually occur as by-products of the decomposition.

PUTRESCIBLE FRACTION - That part of waste which will decompose most readily and which often is responsible for offensive odours; commonly due to the decomposition of food and vegetable matter present in the waste.

PYROLYSIS – In pyrolysis, thermal decomposition takes place in the absence of oxygen. The energy efficiency of this process can be high but operational and high capital costs limit its economic viability.

R

RAMSAR SITE – Listed under the Convention of Wetlands as areas of international importance especially for waterfowl habitats.

REASONED JUSTIFICATION – The explanatory text of a policy.

RECOVERY - The collection, reclamation and separation of materials from the waste stream.

RECOVERY FACILITIES – A facility that recovers value, such as resources and energy, from waste prior to disposal, includes recycling and composting facilities.

RECYCLING - The collection and separation of materials from waste and subsequent processing to produce new marketable products.

RECYCLING PLAN – A plan required by section 49 of the Environmental Protection Act which is produced by District Councils (WCA).

RECYCLING CREDITS – A financial incentive implemented by central government to encourage the recycling of Household waste. The Waste Disposal Authority is obliged to pay the Waste Collection Authorities to separate for recycling household waste that would otherwise go for disposal.

REDUCTION - (1) Reducing the volume of waste by compaction. (2) Use of technology requiring less waste generation from production, or (3) production of longer lasting products with lower pollution potential (4) Removing material from the waste stream, i.e. green waste used in home composts.

REFUSE, DOMESTIC - See **WASTE, DOMESTIC**.

REGIONAL SELF SUFFICIENCY – The provision of sufficient waste management facilities to treat, recover or dispose of all the waste produced in each region

REGIONAL TECHNICAL ADVISORY BODIES (RTABs) - These should advise the existing Regional Planning Bodies (Gloucestershire is part of the 'South West' regional planning area) on waste issues. They should assemble relevant data and provide advice on options and strategies for dealing with the waste that needs to be managed within the region.

RESIDUES - Material left after combustion of wastes.

RESTORATION - Completion of a landfill site to allow planned after use.

RE-USE - Using an item for a different use once its original function has been fulfilled.

RIGS – Regionally Important Geological and Geomorphological Sites

RUBBISH - See **WASTE**.

RUBBLE - See **WASTE, DEMOLITION**.

RUNOFF - A term used to describe liquids, such as water, which drain from the ground surface in the case of landfill, or from the surface of any hardstanding or building.

S

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

SCRAP YARDS - Recovery and bulking up facilities concentrating on metals providing a high quality feedstock to the refining industry.

SCREEN, (OR LITTER SCREEN) - (1) A mesh, supported vertically, used to capture windblown refuse (paper, plastic etc.) i.e. a litter screen.

(2) A mesh or perforated plate used for separating pulverised or shredded refuse into fractions according to particle size.

(3) A mechanical device used to separate medium and larger sized solid material from an effluent prior to further treatment. The separated solids are called screenings.

SECONDARY AGGREGATES – Materials that do not meet primary aggregates (eg sand, gravel and crushed rock) specifications in certain circumstances. Secondary aggregates can comprise recycled waste materials (e.g. demolition materials) or be produced as by-products or other processes including the production of primary aggregates (e.g. scalpings and crusher fines).

SECONDARY LIQUID FUELS - Industrial wastes such as solvents, inks and paints blended for use as secondary fuels to power industrial furnaces and kilns such as cement kilns.

SETTLEMENT - The amount by which a landfill surface sinks below its original level due to compaction by its own weight, or that of landfill machinery.

SEWAGE SLUDGE - The residue produced at a sewage treatment works that is not discharged with the treated effluent.

SEWAGE TREATMENT WORKS – Sites that are developed for the safe treatment of sewage waste.

SHREDDER - A mechanical device which tears or cuts material into small pieces, used to reduce of size of refuse, scrap metal, paper, card, plastic pieces etc. See also **HAMMERMILL** and **PULVERISE**.

SITE OF SPECIAL SCIENTIFIC INTEREST (SSSI) – A site statutorily protected for its nature conservation , geological or scientific value.

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.

SLUDGE - An intimate mixture of solid and liquid.

SMEARING - Mechanical action on wet soil resulting in the formation of a thin compacted layer possessing low permeability.

SOIL RIPPING - Disturbance of the soil layers by drawing a rigid tine through the profile to promote drainage and aeration.

SOIL STRIPPING - The removal of topsoil and subsoil preparatory to further work.

SOLIDIFICATION - The treatment of liquid slurries and sludges to produce solid products in which toxic ions or elements present in wastes become trapped and thereby immobilised.

SOLID MUNICIPAL WASTES - See **WASTE, MUNICIPAL**

SOLID RESIDUES - A general term used to cover fly ash, slag ash, ash and clinker from the grate, and the sludge from the treatment of liquid effluent. (RCEP 1993.)

SPECIAL AREAS OF CONSERVATION (SAC) – Candidate and proposed – Designated with the intention to protect habitats of threatened species of wildlife, under the European Community Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora.

SPECIAL LANDSCAPE AREAS (SLA) – An Area recognised as being of County-level landscape importance. A non-statutory landscape designation, Special

Landscape Areas frequently border Areas of Outstanding Natural Beauty, protecting the landscape settings of these statutorily designated areas.

SPECIAL PROTECTION AREAS (SPA) – Designated under the European Community Council's Directive on the Conservation of Wild Birds to protect threatened species.

SPECIAL WASTE - Controlled waste that is dangerous or difficult to treat, keep, store or dispose of, so that special provision is required for dealing with it. (1990 EPA 5.62 and 5.75 (9)). Special wastes are the most dangerous wastes and include hazardous or toxic wastes. They are listed in the Special Waste Regulations 1996. Wastes are not Special if the hazardous properties set out in the Regulations are absent for any reason. Types of material include acids; alkaline solutions; batteries; oil fly ash; industrial solvents; oily sludges; pesticides; pharmaceutical compounds; photographic chemicals; waste oils; wood preservatives.

SPOIL - Materials removed during mining or mineral extraction distinguished from overburden. Spoil also includes material generated by civil projects which become waste.

STABILISATION - As applied to landfill this term includes the degradation of organic matter to stable products, and the settlement of the fill to its rest level. The process can take more than 20 years to complete. The term also refers to the use of plants to prevent soil erosion from the surface of a landfill or spoil heap.

STRATEGIC SITE – Sites that are strategic to the county which are identified under policy 4 or policy 6 of the Gloucestershire Waste Local Plan for major waste management development, processing more than 50,000 tonnes of waste per annum.

STRUCTURE PLAN – Sets out the broad framework for planning at the local level and provides a strategic policy framework for planning and development control locally, ensuring provision for development is realistic and consistent with national and regional guidance. Structure Plans should secure consistency between local plans for neighbouring areas.

SUBSIDENCE - The sinking of the landfill surface due to consolidation and filling of underground void space, (may be caused by degradation or gas removal).

SUBSOIL - The less well structured and less biologically active layer below topsoil which acts as a reserve of nutrients and water for plant growth in the top soil.

SURCHARGE - landfill above final contours to allow for subsequent settlement.

SURFACE WATER - Any natural or constructed body of water with a surface open to the atmosphere

SUSTAINABLE WASTE MANAGEMENT SYSTEM – A system of dealing with waste that supports the objectives of:

- Effective protection of the environment;
- Prudent use of natural resources;
- Social progress that recognises the needs of everyone;
- High and stable levels of economic growth and employment.

T

TIP - A place where discarded material from mineral extraction processes is deposited.

TIPPING, DIRECTION - The direction in which landfilling is to proceed from an existing working face.

TOPSOIL - The biologically active surface layer of soil which provides a medium for plant growth.

TOTTING - The practice of scavenging a landfill to retrieve material and objects having some commercial, usually scrap, value. (See also mining waste).

TOXIC, (TOXICITY) - A substance or material which when taken in produces a detrimental effect on human, animal or plant life.

TOXIC WASTE - That class of hazardous waste containing constituents in which are harmful to a significant degree.

TRADE WASTE - See **COMMERCIAL WASTE**.

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

U

USE CLASSES ORDER - Regulations issued in 1987 (and subsequently amended) in order to class types of land use for the planning system.

V

VENT - Usually refers to a facility provided in a landfill to permit the escape to atmosphere of gases and vapours generated by deposited waste during biodegradation. Perforated pipes, placed laterally or vertically within the landfill, are sometimes used.

VENTING, ACTIVE - The removal of landfill gas by forced extraction.

VENTING, PASSIVE - The natural movement of gas from a landfilled area of wastes to atmosphere usually assisted by porous drainage media.

VOID RATIO - The relationship between the voids or spaces in deposited refuse and consolidated material.

VOID SPACE - The capacity within a landfill and landraising available for waste, together with cover, construction material, capping engineering and restoration layers.

W

WASTE - Waste is defined in circular 11/94 and in the Waste Management Licensing Regulations 1994 as ‘ any substance or object which the holder discards, or intends to discard or is required to discard’.

WASTE ARISINGS - These are wastes generated within the area, derived from waste disposals minus imports plus exports.

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

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 - A ladder of waste management principles predicated on their sustainability. The hierarchy comprises waste reduction/minimisation (at the top) followed by reuse , then recovery (recycling, energy recovery and composting) and finally disposal (e.g. landfill).

WASTE LOCAL PLAN – A statutory land-use plan forming, in conjunction with the Structure Plan, Minerals Local Plan and District Local Plans, the Development Plan for Gloucestershire. Its purpose is to set out detailed land-use policies in relation to waste management development in the County. The objective of the policies is to guide development in terms of acceptability or otherwise of locations, and to control development through setting out a range of standards and assessment criteria against which applications for planning permission can be judged. The Waste Local Plan is primarily concerned with the use and development of land. Its remit does not include pollution control issues except where those issues affect the use or enjoyment of land (see Planning Policy Guidance note 23 Planning and Pollution Control (DoE, HMSO) for further information).

WASTE LOCAL PLAN STRATEGY – This comprises the Guiding Principles and the Geographic Statement.

WASTE MANAGEMENT FACILITIES - Facilities for the recovery, treatment or disposal of waste.

WASTE MANAGEMENT LICENCE - Licence granted by WRA authorising treatment, keeping or disposal of any specified description of controlled waste in or on specified land by means of specified plant.

WASTE MANAGEMENT STRATEGY – A non-statutory document setting out a mainly technical strategy (i.e. future requirements for waste management facilities, the nature of those facilities, favourable locations and so on) for waste management in Gloucestershire over the next 30 years. The strategy will form the technical basis for the Waste Local Plan where detailed land-use issues will be dealt with.

WASTE MINIMISATION – The process of reducing the quantity of waste arising and requiring processing and/or disposal.

APPENDIX 1: BIBLIOGRAPHY

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Hazardous Waste Directive (91/689/EEC)

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APPENDIX 2: GLOUCESTERSHIRE'S DEVELOPMENT PLAN

Gloucestershire County Council – Gloucestershire Structure Plan

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Gloucester City Council

A Deposit Draft Plan was published in June 2001 with the second deposit the following year. It is intended that the Revised Deposit version will be converted into a Local Development Document.

Stroud District Council

A local plan has never been adopted. A revised deposit plan was placed on deposit in October 2000. The public local inquiry was held during Autumn 2001.

Tewkesbury Borough Council

The Revised Deposit Plan to 2011 was placed on deposit on 5th February 2001. A Public Local Inquiry was held during 2003/2003 with the subsequent Inspector's Report being received in two stages during the latter part of 2003.

Forest of Dean District Council

The local plan to 2001 was adopted in December 1996. A review of the plan was on deposit until 15th September 2000. The revised deposit version was published in 2002, with the public local inquiry being concluded in April 2003.

Cheltenham Borough Council

The local plan to 2001 was adopted in December 1997. The Plan to 2011 had its first deposit in 2002 and second deposit in 2004.

Cotswold District Council

The local plan to 2001 was adopted in August 1999. The deposit draft plan to 2011 went on deposit during 2002/2003 with the revised deposit later in 2003.

Gloucestershire County Council – Minerals Local Plan

The Revised Deposit Draft 1997-2006 was published in April 2000. The Public Local Inquiry was held in September/October 2000 with the Inspector's Report being received by the MPA in December 2001. The Plan was adopted in April 2003.

Gloucestershire County Council – Waste Local Plan

The Deposit Draft 2002-2012 was published in September 2000 and the Revised Deposit version in April 2001. A Public Local Inquiry was held at the end of 2001 and the Inspector's Report received in August 2002.

APPENDIX 3: STRUCTURE PLAN POLICIES ON WASTE (ADOPTED PLAN, NOVEMBER 1999)

Best Practicable Environmental Option (BPEO), and Development and Operation

Policy WM.1

Waste Management facilities located within Gloucestershire should operate on the basis that waste will be treated and/or disposed of by employing the best practicable environmental option (BPEO) for management of a particular waste stream.

Policy WM.2

Primary waste management facilities should be located near to major concentrations of waste arisings, principally the Cheltenham/Gloucester urban area, the Forest of Dean and the Stroud/Cirencester areas. Secondary facilities should be appropriately located in other parts of the County to serve the primary facilities. The following considerations will apply:

(a) How proposals contribute towards an integrated waste management system and the provisions of the development plan;

(b) The transportation of waste must use a method that has the least environmental impact, including alternatives to road transport, unless shown to be impracticable or not economically feasible;

(c) The amenity of local communities and access to the countryside is safeguarded and where possible enhanced;

(d) That reclamation and aftercare of the site are to an acceptable standard;

(e) There is no adverse impact on internationally, nationally, regionally and locally important areas of landscape, nature conservation, and archaeological interest; and

(f) There is no adverse impact on important natural resources including agricultural land and the water-based environment.

Regional Self Sufficiency

Policy WM.3

Development intended to primarily cater for Gloucestershire's waste will be encouraged in the appropriate locations.

Policy WM.4

Provision will be made for facilities associated with the recovery of materials through recycling and composting. The following locational criteria will apply:

(a) facilities should contribute towards an integrated waste management system;

(b) facilities should be in close proximity to major concentrations of waste arisings; and

(c) industrial, redundant and 'brownfield' sites or existing waste management sites should be used in preference to virgin land where appropriate.

Energy from Waste

Policy WM.5

Provision will be made for energy from waste facilities in or near to the Gloucester/Cheltenham area.

Policy WM.6

Provision will be made for the disposal of Gloucestershire's post treatment un-recovered waste residues in appropriate locations where necessary.

APPENDIX 4: WASTE LOCAL PLAN POLICIES

POLICY 1 – BEST PRACTICABLE ENVIRONMENTAL OPTION

PROPOSALS FOR WASTE DEVELOPMENT WILL BE PERMITTED ONLY WHERE IT IS SHOWN BY BEST PRACTICABLE ENVIRONMENTAL OPTION ANALYSIS TO MAKE A POSITIVE CONTRIBUTION TO AN INTEGRATED AND SUSTAINABLE WASTE MANAGEMENT SYSTEM FOR GLOUCESTERSHIRE.

POLICY 2 – REGIONAL SELF-SUFFICIENCY

PROPOSALS FOR WASTE DEVELOPMENT, WHICH ARE LIKELY TO INVOLVE TRANSPORTATION BEYOND THE COUNTY BOUNDARY WILL ONLY BE PERMITTED WHERE THEY ARE NECESSARY TO ACHIEVE REGIONAL SELF-SUFFICIENCY UNLESS THEY COMPRISE THE BPEO FOR THE WASTE STREAM.

POLICY 3 - PROXIMITY PRINCIPLE

AS A GENERAL PRINCIPLE WASTE SHOULD BE DEALT WITH AS NEAR AS IS PRACTICABLE TO THE PLACE WHERE IT IS GENERATED. THIS PRINCIPLE IS SUBJECT TO ENVIRONMENTAL, SOCIAL, ECONOMIC AND TRANSPORT CONSIDERATIONS, WHICH ARE APPROPRIATE TO THE WASTE MANAGEMENT FACILITIES AND PROCESSES BEING PROPOSED AND WHICH WOULD CONTRIBUTE TO THE ANALYSIS OF THE BPEO FOR THE FACILITY.

POLICY 4 –WASTE MANAGEMENT FACILITIES FOR STRATEGIC SITES

STRATEGIC WASTE MANAGEMENT FACILITIES, PROCESSING MORE THAN 50,000 TONNES PER ANNUM, ON SITES ILLUSTRATED IN SCHEDULE 1 OF THE PLAN, WILL BE PERMITTED WHERE IT CAN BE DEMONSTRATED:

- THAT THE FACILITY IS ESSENTIAL TO SUPPORT SUSTAINABLE WASTE MANAGEMENT SUBJECT TO THE DEMONSTRATION OF BPEO FOR THAT WASTE STREAM; AND
- THAT THE FACILITY MEETS THE RELEVANT POLICIES AND CRITERIA OF THIS AND OTHER PARTS OF THE DEVELOPMENT PLAN.

POLICY 5 – WASTE MANAGEMENT FACILITIES FOR LOCAL SITES

LOCAL WASTE MANAGEMENT FACILITIES, PROCESSING LESS THAN 50,000 TONNES PER ANNUM, ON SITES ILLUSTRATED IN SCHEDULE 2 OF THE PLAN WILL BE PERMITTED WHERE IT CAN BE DEMONSTRATED-

- THAT THE FACILITY IS ESSENTIAL TO SUPPORT SUSTAINABLE WASTE MANAGEMENT SUBJECT TO THE DEMONSTRTATION OF BPEO FOR THAT WASTE STREAM; AND

- THAT THE FACILITY MEETS THE RELEVANT POLICIES AND CRITERIA OF THIS AND OTHER PARTS OF THE DEVELOPMENT PLAN.

POLICY 6 - WASTE MANAGEMENT FACILITIES FOR 'OTHER' SITES

PROPOSALS FOR THE DEVELOPMENT OF WASTE MANAGEMENT FACILITIES NOT INCLUDED IN SCHEDULES 1 AND 2 WILL BE PERMITTED WHERE IT IS DEMONSTRATED THAT:

- THE FACILITY IS ESSENTIAL TO SUPPORT SUSTAINABLE WASTE MANAGEMENT SUBJECT TO THE DEMONSTRATION OF BPEO FOR THAT WASTE STREAM; AND
- THE FACILITY MEETS THE RELEVANT POLICIES AND CRITERIA OF THIS AND OTHER PARTS OF THE DEVELOPMENT PLAN.

APPLICANTS FOR NEW FACILITIES WILL NEED TO DEMONSTRATE THAT THEIR PROPOSALS ARE LIKELY TO BE A BETTER OPTION THAN THOSE WASTE MANAGEMENT METHODS AND SITES IDENTIFIED IN SCHEDULES 1 AND 2.

POLICY 7 - SAFEGUARDING SITES FOR WASTE MANAGEMENT FACILITIES

EXISTING SITES IN PERMANENT WASTE MANAGEMENT USE (INCLUDING SEWAGE AND WATER TREATMENT WORKS) AND PROPOSED SITES FOR WASTE MANAGEMENT USE WILL BE SAFEGUARDED BY LOCAL PLANNING AUTHORITIES, WHERE THEY MAKE A CONTRIBUTION TO A SUSTAINABLE WASTE MANAGEMENT SYSTEM IN ACCORDANCE WITH BPEO FOR GLOUCESTERSHIRE. THE WASTE PLANNING AUTHORITY WILL NORMALLY OPPOSE PROPOSALS FOR DEVELOPMENT WITHIN OR IN PROXIMITY TO THESE SITES WHERE THE PROPOSED DEVELOPMENT WOULD PREVENT OR PREJUDICE THE USE OF THE SITE FOR AN APPROPRIATE WASTE MANAGEMENT DEVELOPMENT.

POLICY 8 - ANAEROBIC DIGESTION

PROPOSALS FOR THE DEVELOPMENT OF ANAEROBIC DIGESTION PLANTS WHICH ENABLE THE BEST PRACTICAL USE OF THE BY-PRODUCTS FOR ENERGY RECOVERY AND SOIL IMPROVERS WILL BE PERMITTED IN APPROPRIATE LOCATIONS.

POLICY 9 – COMPOSTING

PROPOSALS FOR THE DEVELOPMENT OF:

A. INDOOR COMPOSTING SCHEMES WILL BE PERMITTED IN APPROPRIATE LOCATIONS, AND MAY BE PERMITTED AS A RE-USE OF APPROPRIATE RURAL BUILDINGS OR AS PART OF AN INTEGRATED WASTE MANAGEMENT FACILITY.

B. COMPOSTING SCHEMES WHICH DO NOT REQUIRE NEW BUILDINGS OR STRUCTURES, WILL ONLY BE PERMITTED IN APPROPRIATE

LOCATIONS WHERE THE SCALE OF THE OPERATION DOES NOT MATERIALLY CONFLICT WITH SURROUNDING LAND USES.

POLICY 10 – HOUSEHOLD WASTE RECYCLING CENTRES

HOUSEHOLD WASTE RECYCLING CENTRES WILL BE PERMITTED WHERE THIS WILL HELP TO ACHIEVE A NETWORK OF SITES ACCESSIBLE TO LOCAL COMMUNITIES AND WHERE IT IS SHOWN TO MAKE A POSITIVE CONTRIBUTION TO AN INTEGRATED AND SUSTAINABLE WASTE MANAGEMENT SYSTEM FOR GLOUCESTERSHIRE.

POLICY 11 – WASTE COLLECTION FACILITIES

PERMISSION WILL BE GRANTED FOR WASTE MANAGEMENT FACILITIES THAT ASSIST WASTE COLLECTION AUTHORITES TO COLLECT, RECOVER, RECYCLE, DIVERT AND DISPOSE OF WASTE IN AN EFFICIENT AND SUSTAINABLE WAY.

POLICY 12 – INERT RECOVERY & RECYCLING

FACILITIES FOR THE RECOVERY AND RECYCLING OF INERT WASTE MATERIALS WILL BE PERMITTED IN APPROPRIATE LOCATIONS. DEVELOPMENTS MAY BE ACCEPTABLE ON EXISTING WASTE MANAGEMENT SITES AND MINERAL WORKINGS WHERE IT CAN BE DEMONSTRATED THAT THE USE WILL NOT UNDULY PREJUDICE THE AGREED RESTORATION TIMESCALE FOR THE SITE. TEMPORARY DEVELOPMENTS MAY BE ACCEPTABLE WHERE THE MATERIAL IS RECYCLED AND RE-USED ON SITE.

POLICY 13 – MATERIALS RECOVERY & WASTE TRANSFER FACILITIES

PROPOSALS FOR MATERIALS RECOVERY AND WASTE TRANSFER FACILITIES WILL BE PERMITTED IN APPROPRIATE LOCATIONS WHERE IT CAN BE DEMONSTRATED THAT THE DEVELOPMENT WILL ASSIST THE EFFICIENT COLLECTION AND RECOVERY OF WASTE MATERIALS.

POLICY 14 – METAL RECYCLING FACILITIES

PROPOSALS FOR FACILITIES WHICH HANDLE, PROCESS, TRANSFER OR STORE SCRAP OR ABANDONED VEHICLES OR OTHER SCRAP METAL WILL ONLY BE PERMITTED WITHIN APPROPRIATE LOCATIONS. SMALL SCALE FACILITIES MAY ALSO BE PERMITTED AS PART OF AN EXISTING WASTE MANAGEMENT SITE.

POLICY 15 – WASTE TO ENERGY RECOVERY

PROPOSALS FOR THE DEVELOPMENT OF WASTE TO ENERGY RECOVERY FACILITIES WILL BE PERMITTED IN APPROPRIATE LOCATIONS WHERE IT CAN BE DEMONSTRATED THAT-

- THE FACILITY WOULD BE PART OF A SUSTAINABLE WASTE MANAGEMENT SYSTEM; AND
- IN DEMONSTRATING SUSTAINABLITY THE FACILITY WOULD NOT PREDJUDICE TARGETS BEING MET FOR RECYCLING; IT

WOULD REALISE ENERGY RECOVERY; AND DISPOSAL ROUTES FOR RESIDUES WOULD BE SATISFACTORY; AND

- THE FACILITY WOULD MEET THE RELEVANT POLICIES AND CRITERIA OF THE DEVELOPMENT PLAN.

POLICY 16 – SPECIAL WASTE FACILITIES

FACILITIES FOR THE ADDITIONAL HANDLING, TREATING, PROCESSING OR DISPOSAL OF SPECIAL WASTES WILL BE PERMITTED IF IT CAN BE DEMONSTRATED-

- THAT IT WOULD FORM PART OF A SUSTAINABLE WASTE MANAGEMENT SYSTEM; AND
- THAT IT WOULD MEET THE RELEVANT POLICIES AND CRITERIA OF THE DEVELOPMENT PLAN.

POLICY 17 – MINING OF WASTE

THE MINING OF WASTE WILL ONLY BE PERMITTED WHERE MINING WILL PROVIDE A DEMONSTRABLE BENEFIT TO THE ENVIRONMENT, HUMAN HEALTH AND LOCAL AMENITY, OR WHERE THE WASTE IS SHOWN TO BE ENDANGERING HUMAN HEALTH, HARMING THE ENVIRONMENT, OR ITS REMOVAL IS REQUIRED TO FACILITATE MAJOR INFRASTRUCTURE PROJECTS.

POLICY 18 – NON-ENERGY RECOVERY INCINERATION

WASTE INCINERATION WITHOUT ENERGY RECOVERY WILL NOT BE PERMITTED EXCEPT WHERE IT CAN BE DEMONSTRATED TO MEET THE CRITERIA AND POLICIES OF THE DEVELOPMENT PLAN, IN PARTICULAR THAT CONCERNING BEST PRACTICABLE ENVIRONMENTAL OPTION AND IT FORMS PART OF A SUSTAINABLE WASTE MANAGEMENT SYSTEM.

POLICY 19 – SEWAGE AND WATER TREATMENT

PROPOSALS FOR THE TREATMENT AND DISPOSAL OF SEWAGE AND SEWAGE SLUDGE WILL BE PERMITTED IN APPRORPAITE LOCATIONS WHERE IT CAN BE DEMONSTRATED THAT;

- THE FACILITY WOULD BE PART OF A SUSTAINABLE WASTE MANAGEMENT SYSTEM; AND
- THE FACILITY WOULD MEET THE RELEVANT POLICIES AND CRITERIA OF THE DEVELOPMENT PLAN.

POLICY 20 – LANDFILL / LANDRAISING

NEW LANDFILL/LANDRAISE PROPOSALS WILL NOT BE PERMITTED UNLESS IT CAN BE DEMONSTRATED THAT;

- THE FACILITY WOULD BE PART OF A SUSTAINABLE WASTE MANAGEMENT SYSTEM; AND
- THE FACILITY WOULD MEET THE RELEVANT POLICIES AND CRITERIA OF THE DEVELOPMENT PLAN.

POLICY 21 – AGRICULTURAL IMPROVEMENTS

PROPOSALS FOR DEVELOPMENT BY LANDFILL OR LANDRAISING FOR THE PURPOSES OF AGRICULTURAL IMPROVEMENT WILL ONLY BE PERMITTED WHERE IT CAN BE SHOWN THAT:-

1. THERE IS NO SIGNFICANT LOSS OF AMENITY CAUSED BY THE OPERATIONS AND TRAFFIC MOVEMENTS;
2. A SUFFICIENT QUANTITY OF INERT MATERIAL IS IDENTIFIED IN CLOSE PROXIMITY TO THE DEVELOPMENT TO ENABLE COMPLETE AND SATISFACTORY RESTORATION OF THE SITE;
3. RESTORATION IS COMPLETED WITHIN 12 MONTHS OF THE COMMENCEMENT OF DEVELOPMENT OR THE NEXT PLANTING SEASON, WHICH EVER IS SOONEST;
4. THE DEVELOPMENT IS CONSIDERED AS PART OF THE VIABILITY OF THE WHOLE AGRICULTURAL UNIT;
5. THE MATERIALS USED ARE INERT OR ARE SOIL IMPROVERS FROM COMPOSTING OR ANAEROBIC DIGESTION OPERATIONS WITHIN GLOUCESTERSHIRE;
6. OTHER OPTIONS AND ALTERNATIVES HAVE BEEN CONSIDERED BY AN APPROPRIATE ASSESSMENT AND REPORT AND THAT THE PROPOSAL IS IN ACCORDANCE WITH BEST PRACTICABLE ENVIRONMENTAL OPTION AND OTHER CRITERIA AND POLICIES OF THE DEVELOPMENT PLAN;
7. THE BEST AND MOST VERSATILE AGRICULTURAL LAND (GRADES 1, 2, AND 3A) WILL NOT BE ADVERSELY AFFECTED BY THE PROJECT.

POLICY 22 - LANDSPREADING

THE SPREADING OF UNTREATED OR TREATED LIQUIDS, SLUDGE DISCARDS, SEWAGE SLUDGE, SOILS OR ANY DERIVATIVE THEREOF WILL NOT BE PERMITTED UNLESS IT CAN BE SHOWN THAT IT WILL BENEFIT THE FERTILITY OF THE LAND CONCERNED AND WILL NOT:

1. GIVE RISE TO POLLUTION OF WATER RESOURCES, MALODOROUS EMISSIONS OR UNACCEPTABLE HIGHWAY IMPACT (INCLUDING TRAFFIC MOVEMENTS).

2. ENDANGER HUMAN HEALTH OR CAUSE HARM TO THE ENVIRONMENT, IN PARTICULAR WITHOUT:

    - RISK TO WATER, AIR, SOILS, PLANTS OR ANIMALS;
    - CAUSING NUISANCE THROUGH NOISE OR ODOURS;
    - ADVERSELY AFFECTING THE COUNTRYSIDE OR PLACES OF SPECIAL INTEREST.

POLICY 23 - INTERNATIONALLY AND NATIONALLY DESIGNATED SITES FOR NATURE CONSERVATION

PLANNING PERMISSION WILL NOT BE GRANTED FOR WASTE DEVELOPMENT, WHICH WOULD CONFLICT WITH THE CONSERVATION, MANAGEMENT AND ENHANCEMENT OF THE FOLLOWING DESIGNATED SITES OF INTERNATIONAL AND NATIONAL IMPORTANCE:

INTERNATIONAL:
- RAMSAR SITES
- SPECIAL PROTECTION AREAS (INCLUDING POTENTIAL SITES)
- SPECIAL AREAS OF CONSERVATION (INCLUDING CANDIDATE SITES)

NATIONAL:
- NATIONAL NATURE RESERVES
- SITES OF SPECIAL SCIENTIFIC INTEREST

POLICY 24 – LOCALLY DESIGNATED SITES FOR NATURE CONSERVATION

PLANNING PERMISSION WILL NOT BE GRANTED FOR WASTE DEVELOPMENT WHICH WOULD HAVE A COMPROMISING ADVERSE IMPACT NOT CAPABLE OF MITIGATION, ON THE NATURAL FEATURES AND BIODIVERSITY OF THE FOLLOWING LOCAL NATURE CONSERVATION DESIGNATIONS:

LOCAL NATURE RESERVES:
- KEY WILDLIFE SITES
- WILDLIFE CORRIDORS
- ANCIENT SEMI NATURAL WOODLANDS
- REGIONALLY IMPORTANT GEOLGICAL/GEOMORPHOLOGICAL SITES (RIGS)

POLICY 25 - CONSERVATION OUTSIDE DESIGNATED SITES

PROPOSALS FOR WASTE DEVELOPMENT WILL ONLY BE PERMITTED WHERE ADVERSE IMPACTS ON FEATURES, WHICH ARE OF MAJOR IMPORTANCE FOR WILD FLORA AND FAUNA, NATURAL AND CULTURAL HERITAGE CAN BE PREVENTED OR MITIGATED.

POLICY 26 - AREAS OF OUTSTANDING NATURAL BEAUTY

PROPOSALS FOR WASTE DEVELOPMENT WITHIN AREAS OF OUTSTANDING NATURAL BEAUTY, AND/OR ADVERSELY AFFECTING THE NATURAL BEAUTY OF THEIR LANDSCAPE SETTING, WILL ONLY BE PERMITTED WHERE;

- IT CAN BE DEMONSTRATED TO BE THE BEST PRACTICABLE ENVIRONMENTAL OPTION; AND
- THERE IS A LACK OF ALTERNATIVE SITES; AND
- THERE IS A PROVEN NATIONAL INTEREST; AND
- THE IMPACT ON THE SPECIAL FEATURES OF THE AONB CAN BE MITIGATED.

POLICY 27 - SPECIAL LANDSCAPE AREAS

PROPOSALS FOR WASTE DEVELOPMENT IN SPECIAL LANDSCAPE AREAS WILL ONLY BE PERMITTED WHERE THE IMPACT ON THE SPECIAL FEATURES OF THE LANDSCAPE CAN BE MITIGATED.
ARCHAEOLOGY AND THE HISTORIC ENVIRONMENT

POLICY 28 - SITES OF NATIONAL ARCHAEOLOGICAL IMPORTANCE

PROPOSALS FOR WASTE DEVELOPMENT WHICH WOULD CAUSE DAMAGE TO OR INVOLVE SIGNIFICANT ALTERATION TO NATIONALLY IMPORTANT ARCHAEOLOGICAL REMAINS OR THEIR SETTINGS, WHETHER SCHEDULED OR NOT, WILL NOT BE PERMITTED.

POLICY 29 - SITES OF LOCAL ARCHAEOLOGICAL IMPORTANCE

PROPOSALS FOR WASTE DEVELOPMENT WILL ONLY BE PERMITTED ON A SITE OF LOCAL ARCHAEOLOGICAL IMPORTANCE WHERE SATISFACTORY MITIGATION ARRANGEMENTS HAVE BEEN DEFINED FOLLOWING CONSIDERATION OF THE RESULTS OF AN ARCHAEOLOGICAL EVALUATION, RECORDING OR EXCAVATION AND SUBSEQUENT PUBLICATION OF THE RESULTS.

POLICY 30 – LISTED BUILDINGS AND CONSERVATION AREAS

PROPOSALS FOR WASTE DEVELOPMENT WHICH WOULD ADVERSELY AFFECT ANY LISTED BUILDING OR ITS SETTING, OR ANY FEATURE OF SPECIAL ARCHITECTURAL OR HISTORIC INTEREST IT POSSESSES, OR THE PRESERVATION OR ENHANCEMENT OF THE CHARACTER OR APPEARANCE OF ANY CONSERVATION AREA OR ITS SETTING WILL NOT BE PERMITTED UNLESS THE IMPACT CAN BE MITIGATED.

POLICY 31 – HISTORIC HERITAGE

PROPOSALS FOR WASTE DEVELOPMENT, WHICH ADVERSELY AFFECT THE FOLLOWING DESIGNATIONS, WILL NOT BE PERMITTED UNLESS THE EFFECTS OF THE DEVELOPMENT CAN BE MITIGATED;

- REGISTERED HISTORIC PARKS AND GARDENS,
- REGISTERED BATTLEFIELDS, AND
- LOCALLY IMPORTANT PARKS AND GARDENS.

POLICY 32 - AGRICULTURAL LAND

THE BEST AND MOST VERSATILE AGRICULTURAL LAND (GRADES 1, 2 AND 3A) WILL BE PROTECTED FROM DEVELOPMENT. PROPOSALS FOR WASTE DEVELOPMENT WILL ONLY BE PERMITTED WHERE IT CAN BE DEMONSTRATED THAT THERE IS AN OVERRIDING NEED FOR THE DEVELOPMENT AND AN ABSENCE OF SUITABLE ALTERNATIVE SITES.

WHERE THERE IS AN OVERRIDING NEED TO DEVELOP BEST AND MOST VERSATILE LAND, THE WASTE PLANNING AUTHORITY WILL GIVE PREFERENCE TO A LOCATION WHICH WOULD INVOLVE THE LOSS OF THE LOWEST GRADE LAND.

POLICY 33 - WATER RESOURCES – POLLUTION CONTROL

PROPOSALS FOR WASTE DEVELOPMENT WILL ONLY BE PERMITTED WHERE THERE WOULD BE NO UNACCEPTABLE RISK OF

CONTAMINATION TO SURFACE WATERCOURSES, BODIES OF WATER OR GROUNDWATER RESOURCES.

POLICY 34 - WATER RESOURCES – FLOOD CONTROL

PROPOSALS FOR WASTE DEVELOPMENT WILL ONLY BE PERMITTED WHERE THERE WOULD BE NO UNACCEPTABLE RISK OF DEVELOPMENT IMPEDING THE FLOW OF SURFACE OR GROUNDWATER, REDUCING FLOOD STORAGE CAPACITY OR INCREASING THE RATE OF SURFACE WATER RUN-OFF, WHICH WOULD RESULT IN FLOODING NEAR THE SITE OR ELSEWHERE.

POLICY 35 – GREEN BELT

IN THE GREEN BELT, WASTE MANAGEMENT DEVELOPMENT WILL ONLY BE PERMITTED WHERE IT CAN BE DEMONSTRATED TO BE THE BEST PRACTICABLE ENVIRONMENTAL OPTION AND DOES NOT CONFLICT WITH THE PURPOSES OF GREEN BELT DESIGNATION IN THE FOLLOWING INSTANCES:

A - THE CONSTRUCTION OF A WASTE MANAGEMENT FACILITY WILL ONLY BE PERMITTED WHERE IT COMPRISES AN ESSENTIAL FACILITY WHICH IS GENUINELY REQUIRED AND WHOSE FORM, BULK AND GENERAL DESIGN IS IN KEEPING WITH ITS SURROUNDINGS AND WHERE WASTE MANAGEMENT OPERATIONS OF A TEMPORARY NATURE INCLUDE THE LIKELY DURATION OF THE WASTE MANAGEMENT OPERATION.

B - THE RE-USE OF A BUILDING FOR WASTE MANAGEMENT PURPOSES WILL BE PERMITTED PROVIDED:

(I) IT DOES NOT HAVE A MATERIALLY GREATER IMPACT THAN THE PRESENT USE ON THE OPENNESS OF THE GREEN BELT AND THE PURPOSES OF INCLUDING LAND IN IT;

(II) THE BUILDING IS OF PERMANENT AND SUBSTANTIAL CONSTRUCTION AND IS CAPABLE OF CONVERSION WITHOUT MAJOR OR COMPLETE RECONSTRUCTION; AND

(III) THE FORM, BULK AND GENERAL DESIGN OF THE BUILDING IS IN KEEPING WITH ITS SURROUNDINGS.

POLICY 36 - WASTE MINIMISATION

PROPOSALS FOR DEVELOPMENT REQUIRING PLANNING PERMISSION SHALL INCLUDE A SCHEME FOR SUSTAINABLE MANAGEMENT OF THE WASTE GENERATED BY THE DEVELOPMENT DURING CONSTRUCTION AND DURING SUBSEQUENT OCCUPATION. THE SCHEME SHALL INCLUDE MEASURES TO:

I. MINIMISE, RE-USE AND RECYCLE WASTE; AND

II. MINIMISE THE USE OF RAW MATERIALS; AND

III. MINIMISE THE POLLUTION POTENTIAL OF UNAVOIDABLE WASTE; AND

IV. DISPOSE OF UNAVOIDABLE WASTE IN AN ENVIRONMENTALLY ACCEPTABLE MANNER;

INITIATIVES TO REDUCE WASTE GENERATION WILL BE ENCOURAGED THROUGHOUT THE COUNTY.

POLICY 37 – PROXIMITY TO OTHER LAND USES

PROPOSALS FOR WASTE DEVELOPMENT WILL BE DETERMINED TAKING INTO ACCOUNT SUCH MATTERS AS THE EFFECT ON THE ENVIRONMENT, OCCUPANTS' AND USERS' AMENITY AND HEALTH, THE COUNTRYSIDE, THE TRADITIONAL LANDSCAPE CHARACTER OF GLOUCESTERSHIRE, THE LOCAL HIGHWAY NETWORK, ANY HAZARDOUS INSTALLATION OR SUBSTANCE AND ANY ADVERSE CUMULATIVE EFFECT IN COMBINATION WITH OTHER DEVELOPMENT IN THE AREA. WHERE APPROPRIATE, SUITABLE AMELIORATIVE MEASURES SHALL BE INCORPORATED IN THE PROPOSALS TO MITIGATE, ATTENUATE AND CONTROL NOISE, DUST, LITTER, ODOUR, LANDFILL GAS, VERMIN, LEACHATE AND FLUE EMISSIONS.

POLICY 38 - HOURS OF OPERATION

THE WASTE PLANNING AUTHORITY WILL WHERE APPROPRIATE IMPOSE A CONDITION RESTRICTING HOURS OF OPERATION ON WASTE MANAGEMENT FACILITIES TO PROTECT AMENITY.

POLICY 39 – TRANSPORT

PROPOSALS FOR THE DEVELOPMENT OF WASTE MANAGEMENT FACILITIES WILL BE REQUIRED TO SHOW THAT, WHERE PRACTICABLE, FULL CONSIDERATION IS GIVEN TO THE TRANSPORT OF WASTE, BY:

- RAIL;
- WATER; AND
- THROUGH PIPELINES;

A TRANSPORT ASSESSMENT WILL BE REQUIRED TO ADDRESS THE TRAFFIC IMPACT AND THE ACCESSIBILITY OF THE PROPOSED DEVELOPMENT. THE SCOPE OF THE TRANSPORT ASSESSMENT MUST BE AGREED BEFOREHAND WITH THE WPA.

POLICY 40 – TRAFFIC

PROPOSALS FOR WASTE DEVELOPMENT WILL ONLY BE PERMITTED WHERE THE SITE ACCESS AND THE ADJACENT HIGHWAY NETWORK CAN SAFELY ACCOMMODATE THE TRAFFIC ASSOCIATED WITH THE DEVELOPMENT, OR WHERE THE REQUIRED HIGHWAY IMPROVEMENTS WOULD NOT CAUSE UNACCEPTABLE HARM TO THE LOCAL ENVIRONMENT. A TRANSPORT ASSESSMENT WILL BE REQUIRED TO ADDRESS THE TRAFFIC GENERATION OF THE PROPOSED DEVELOPMENT AND ITS IMPACT ON THE LOCAL ROAD NETWORK.

POLICY 41 – PUBLIC RIGHTS OF WAY

PROPOSALS FOR WASTE DEVELOPMENT SHOULD INCLUDE, WHERE APPROPRIATE, PROPOSALS TO CREATE NEW PUBLIC RIGHTS OF WAY AND SHOULD SAFEGUARD EXISTING PUBLIC RIGHTS OF WAY BY

INCORPORATING MEASURES TO SEGREGATE OR DIVERT THEM, PRIOR TO COMMENCING DEVELOPMENT. WHERE NEW PUBLIC RIGHTS OF WAY ARE CREATED, OPERATORS WILL BE ASKED TO ENTER INTO A MAINTENANCE AGREEMENT. THIS WILL PLACE A RESPONSIBILITY ON THE CURRENT AND ANY FUTURE LANDOWNER TO MANAGE THESE RIGHTS OF WAY.

POLICY 42 - REINSTATEMENT

IN CONSIDERING PROPOSALS FOR TEMPORARY WASTE DEVELOPMENT, THE WASTE PLANNING AUTHORITY REQUIRES REINSTATEMENT MEASURES FOR THE LAND INCLUDING APPROPRIATE AFTERCARE TO SECURE ACCEPTABLE AND SUSTAINABLE AFTER-USE BY A SET DATE. IN THE CASE OF RESTORATION TO AGRICULTURE, THE LAND SHOULD BE RETURNED TO A QUALITY EQUIVALENT TO OR BETTER THAN EXISTED BEFORE DEVELOPMENT COMMENCED. A GOOD ENVIRONMENTAL STANDARD WILL BE EXPECTED THAT WILL REFLECT THE CHARACTER OF THE LAND AS A VALUABLE RESOURCE. DETAILS OF REINSTATEMENT REQUIREMENTS WILL BE DETERMINED BY THE CIRCUMSTANCES PREVAILING AT THE TIME OF THE PLANNING DECISION AND WHEN ANY LATER APPLICATIONS FOR REVIEW ARE CONSIDERED.

POLICY 43 – AFTER USE

THE WASTE PLANNING AUTHORITY WILL ENCOURAGE AFTER-USES ON WASTE MANAGEMENT SITES WHICH WILL:

- BENEFIT THE LOCAL COMMUNITY,
- DIVERSIFY THE LOCAL ECONOMY,
- IMPROVE AMENITIES,
- ENHANCE BIODIVERSITY AND WILDLIFE HABITATS, LANDSCAPE FEATURES, THE LOCAL ENVIRONMENT, OR OTHER SITES OF GEOLOGICAL OR SCIENTIFIC INTEREST, OR
- PROVIDE WOODLAND AREAS,

WHERE THIS DOES NOT CONFLICT WITH OTHER POLICIES, AND THE BIODIVERSITY ACTION PLAN.

POLICY 44 - AIRPORT SAFEGUARDING

PROPOSALS FOR WASTE DEVELOPMENT WITHIN THE SAFEGUARDING AREAS OF AIRPORTS AND AIRFIELDS WILL ONLY BE PERMITTED WHERE IT CAN BE ADEQUATELY DEMONSTRATED THAT THE DEVELOPMENT AND THE NATURE OF THE WASTE MATERIALS INVOLVED WILL NOT CONSTITUTE A HAZARD TO AIR TRAFFIC.

POLICY 45 – PLANNING OBLIGATIONS

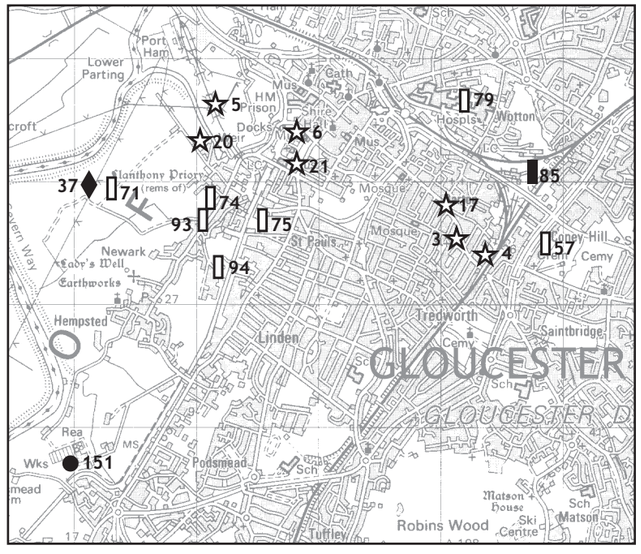
THE WASTE PLANNING AUTHORITY WILL SEEK TO ENTER INTO PLANNING OBLIGATIONS WITH WASTE OPERATORS TO MITIGATE THE IMPACTS OF WASTE AND WASTE DEVELOPMENT. THE FOLLOWING MAY BE CONSIDERED APPROPRIATE MATTERS FOR INCLUSION IN A PLANNING OBLIGATION WHERE RELATED TO THE DEVELOPMENT PROPOSAL:

- HIGHWAYS AND ACCESS IMPROVEMENT AND HIGHWAY MAINTENANCE,
- TRAFFIC WEIGHT RESTRICTIONS,
- ENVIRONMENTAL PROTECTION AND ENHANCEMENT [INCLUDING LANDSCAPING, HABITAT AND SPECIES PROTECTION AND CREATION],
- PROTECTION AND/OR REPLACEMENT OF LOCAL, REGIONAL AND NATIONAL SITES OF ACKNOWLEDGED IMPORTANCE,
- REPLACEMENT OF IMPORTANT ENVIRONMENTAL AND LANDSCAPE FEATURES,
- PROTECTION OF LOCAL AMENITY,
- WASTE AWARENESS AND PUBLICITY CAMPAIGNS FOR THE LOCAL COMMUNITY,
- LOCAL WASTE MINIMISATION PROJECTS,
- REPLACEMENT OF LOCAL COMMUNITY FACILITIES, FOR EXAMPLE OPEN SPACE, SPORTS AND RECREATION FACILITIES,
- PROTECTION OF OTHER NATURAL RESOURCES, FOR EXAMPLE, THE WATER ENVIRONMENT,
- RESTORATION AND LONG-TERM MANAGEMENT OF SITE,
- AFTER-USE DEVELOPMENT, AND
- MONITORING.

Appendix 5 – Gloucestershire Waste Local Plan

Type of Facility	Site	Local Authority	EA License Ref.	Map No.
‡ **Metal Recycling Facility (Vehicle Dismantler)**	Unit 7 Forest Vale Industrial Estate, Cinderford, Gloucestershire	Forest of Dean District	48065	1
‡ **Metal Recycling Facility (Vehicle Dismantler)**	Forest Auto Salvage, Forest Vale Road, Cinderford, Gloucestershire	Forest of Dean District	48068	2
‡ **Metal Recycling Facility (Vehicle Dismantler)**	City Auto Storage, Rear of Ambulance Station, Off Eastern Avenue, Gloucester,	Gloucester City	48066	3
‡ **Metal Recycling Facility (Vehicle Dismantler)**	JC Autos, Rear of Ambulance Station, Eastern Avenue, Gloucester	Gloucester City	48071	4
‡ **Metal Recycling Facility (Vehicle Dismantler)**	Cleave Motor Salvage, 232a, Bristol Road, Gloucester	Gloucester City	48075	5
‡ **Metal Recycling Facility (Vehicle Dismantler)**	Gloucester Motor Spares, Unit G2, High Orchard Road, Gloucester,	Gloucester City	48072	6
‡ **Metal Recycling Facility (Vehicle Dismantler)**	B&K Dismantlers, Downwood Mill, Stroud, Gloucestershire	Stroud District	48069	7
‡ **Metal Recycling Facility (Vehicle Dismantler)**	Dursley Auto Dismantlers, Berkeley Road, Dursley, Gloucestershire	Stroud District	48073	8
‡ **Metal Recycling Facility (Vehicle Dismantler)**	Downwood Mill, 16 Slad Road, Camp Stroud, Gloucestershire	Stroud District	48074	9
‡ **Metal Recycling Facility (Vehicle Dismantler)**	Buckland, Henry, Raymond, Cotswold View, Golden Valley, Gloucester Road, Cheltenham, Gloucestershire	Tewkesbury Borough	48061	10
‡ **Metal Recycling Facility (Vehicle Dismantler)**	W P Walker, Twigworth Breakers Ltd, Tewkesbury Road, Twigworth, Gloucestershire	Tewkesbury Borough	48062	11
‡ **Metal Recycling Facility (Vehicle Dismantler)**	Mitchell Vehicle Dismantling, 74 Evesham Road, Bishops Cleeve, Nr Cheltenham, Gloucestershire	Tewkesbury Borough	48064	12
‡ **Metal Recycling Facility (Vehicle Dismantler)**	J Woodward Autospares, The Bungalow, Hawkwell Green, Cinderford, Gloucestershire	Forest of Dean District	48070	13
‡ **Metal Recycling Facility (Vehicle Dismantler)**	Bourne Mills, Brimscombe, Near Stroud, Gloucestershire	Stroud District	48076	14
‡ **Metal Recycling Facility (Vehicle Dismantler)**	**FAB Recycling Ltd**, Broadmoor Rd, Cinderford, Gloucestershire,	Forest of Dean District	30128	86

APPENDIX 5 EXISTING LICENSED WASTE MANAGEMENT FACILITIES AND SEWAGE/WATER TREATMENT WORKS MAP



KEY:

- ☆ Metal Recycling Facility
- ○ Civic Amenity Site
- ■ Incinerator without Energy Recovery
- ♦ Landfill/Landraise
- ▲ Composting Facility
- ★ Materials Recycling Treatment
- ● Sewage Treatment Works
- ▯ Transfer Station
- ▮ Treatment Facility

see inset

Scale: 1:213,760 and 1:50,000

Gloucestershire COUNTY COUNCIL

ADOPTED GLOUCESTERSHIRE WASTE LOCAL PLAN 2002 - 2012

Appendix 5 – Gloucestershire Waste Local Plan

Type of Facility	Site	Local Authority	EA License Ref.	Map No.
‡ **Metal Recycling Facility (Mixed MRS's)**	Cambridge Mills, Cambridge, Gloucestershire	Stroud District	48063	15
‡ **Metal Recycling Facility (Mixed MRS's)**	Coopers (metals) Ltd, Byard Rd, Gloucester	Gloucester City	48084	17
‡ **Metal Recycling Facility (Mixed MRS's)**	Burke Bros, Hayricks Wharf, Tewkesbury Road, Cheltenham, Glos	Cheltenham Borough	48078	18
‡ **Metal Recycling Facility (Mixed MRS's)**	Hayes Metals, Abbey Works, Hempsted Lane, Gloucester	Gloucester City	48082	21
‡ **Metal Recycling Facility (Mixed MRS's)**	Ryeford Industrial Estate, Unit 21-24, Stonehouse, Gloucestershire	Stroud District	48083	22
‡ **Metal Recycling Facility (Mixed MRS's)**	ELG Haniel Metals Ltd, The Docks, Sharpness, Berkeley, Glos	Stroud District	48085	23
‡ **Metal Recycling Facility (Mixed MRS's)**	7 Parliament Street, Stroud, Gloucestershire	Stroud District	48086	24
‡ **Metal Recycling Facility**	Never Despair Breakers, Unit 8, Broadway Trading Estate, Broadway Lane, South Cerney, Gloucestershire	Cotswold District	86075	25
‡ **Metal Recycling Facility (Mixed MRS's)**	Oil Tank Supplies, Springhill Ind Est, Springhill, Moreton in Marsh, Glos	Cotswold District	86076	26
‡ **Metal Recycling Facility (Mixed MRS's)**	Simsmetal UK Limited, Forest Vale Industrial Estate, Unit 7, Cinderford, Glos	Forest of Dean District	48081	27
‡ **Metal Recycling Facility (Mixed MRS's)/ Transfer Station**	Adsett Trading, Woodland View, Adsett Lane, Westbury on Severn, Glos	Forest of Dean District	48087	19
‡ **Metal Recycling Facility**	JG & R Phelps, Sudmeadow Road, Hempsted, Gloucester	Gloucester City	48079	20
‡ **Landfill/Landraise**	Grundons, Wingmoor Farm, Stoke Orchard, Bishops Cleeve, Cheltenham, Glos	Tewkesbury Borough	48023	41
‡ **Landfill/Landraise**	Nastfield Farm, Frampton on Severn, Gloucestershire	Stroud District	48006	33
‡ **Household, Commercial & Industrial Waste Landfill & recovery Facility**	Drymeadow Farm, Innsworth	Tewkesbury Borough	48018	34
‡ **Landfill Taking Non-Biodegradable Wastes**	Water Mead Meadow, Painswick Rd, Witcombe, Glos	Tewkesbury Borough	48183	35
‡ **Household, Commercial & Industrial Waste Landfill**	Westonbirt School, Tetbury, Gloucestershire	Cotswold District	27268	36

Appendix 5 – Gloucestershire Waste Local Plan

Type of Facility	Site	Local Authority	EA License Ref.	Map No.
‡ Co Disposal Landfill Site & Storage Recovery Facility	Cory Environmental, Sudmeadow Landfill, Hempsted, Gloucester	Gloucester City	48038	37
‡ Landfill Taking Non-Biodegradable Wastes	Colethrop Court Farm, Haresfield, Gloucestershire	Stroud District	48188	38
‡ Industrial Waste Landfill (Factory Curtilage)	Federal Mogul Camshaft & Castings Ltd, Tutnalls, Lydney	Forest of Dean District	48013	40
‡ Landfill Taking Non-Biodegradable Wastes	W R Haines, Weston Sub Edge, Chipping Campden, Gloucestershire	Cotswold District	48022	48
‡ Landfill Taking Non-Biodegradable Wastes	Hampton Fields, Minchinhampton, Nr Stroud, Gloucestershire	Stroud District	48024	49
‡ Landfill Taking Non-Biodegradable Wastes	A R Smith, Nymsfield, Stroud, Gloucestershire	Stroud District	48029	50
‡ Landfill Taking Non-Biodegradable Wastes	Churngold Waste Management Ltd, Newtown, Berkeley, Gloucestershire	Stroud District	48047	51
Inert Recovery & Recycling	Netherhills Pit, Frombridge Lane, Whitminster, Glos	Stroud District	Exempt	52
‡ Landfill Taking Non-Biodegradable Wastes	Clays Wood Reclamation, Whitehouse Farm, Sling, Coleford, Glos	Forest of Dean District	48190	53
‡ Landfill Taking Non-Biodegradable Wastes	Capaldi & Sons Transport Ltd, Shurdington, Gloucestershire	Tewkesbury Borough	48027	54
‡ Landfill Taking Other Wastes	Railway Cutting, Dorn, Moreton in Marsh, Gloucestershire	Cotswold District	48019	55
‡ Industrial Waste Landfill (Factory Curtilage)	Fred Watkins Engineering Ltd, Factory Site, Sling, Coleford, Gloucestershire,	Forest of Dean District	48011	56
‡ Household, Commercial & Industrial Waste Landfill	Grasshopper 2000 Ltd, Glos Sand and Gravel, Wingmoor Landfill Site, Stoke Road, Bishops Cleeve, Cheltenham	Tewkesbury Borough	48009	42
‡ Household, Commercial & Industrial Waste Landfill	Grasshopper 2000 Ltd, Glos Sand and Gravel, Wingmoor Landfill Site, Stoke Road, Bishops Cleeve, Cheltenham	Tewkesbury Borough	48010	43
‡ Household, Commercial & Industrial Waste Landfill & Composting Facility	Cory Environmental, Wingmoor Farm Refuse Tip, Stoke Road, Bishops Cleeve, Gloucester	Tewkesbury Borough	48037	44
‡ Household, Commercial & Industrial Waste Landfill	Frampton Landfill Site, The Perryway, Whitminster, Glos,	Stroud	48004	45
‡ Household, Commercial & Industrial Waste Landfill	Severn Trent Water Ltd, Cinderford, Gloucestershire	Forest of Dean District	48012	46

Appendix 5 – Gloucestershire Waste Local Plan

Type of Facility	Site	Local Authority	EA License Ref.	Map No.
‡ **Household, Commercial & Industrial Waste Transfer Station**	Gloucester City Council, Eastern Avenue Depot, Eastern Avenue, Gloucester	Gloucester City	48035	57
‡ **Household, Commercial & Industrial Waste Transfer Station**	Ham Villa, Charlton Kings, Cheltenham, Gloucestershire	Cheltenham Borough	48046	58
‡ **Household, Commercial & Industrial Waste Transfer Station**	Ringway Highway Services, Golden Valley Interchange, Cheltenham, Gloucestershire	Tewkesbury Borough	48057	59
‡ **Household, Commercial & Industrial Waste Transfer Station**	Ringway Highway Services, Cannop Depot, Vallets Wood, Cannop	Forest of Dean District	48058	60
‡ **Household, Commercial & Industrial Waste Transfer Station**	Plasmega Sharpness Ltd, The Factory, Sharpness Docks, Nr Berkeley, Gloucestershire	Stroud District	48059	61
‡ **Household, Commercial & Industrial Waste Transfer Station**	Netheridge Sewage Treatment Works, Hempstead Lane, Gloucester	Gloucester City	48001	63
‡ **Household, Commercial & Industrial Waste Transfer Station/HWS**	Cory Environmental) (Gloucestershire Ltd) Wingmoor Farm, Stoke Road, Stoke Orchard, Gloucestershire	Tewkesbury Borough	48044	64
‡ **Household, Commercial & Industrial Waste Transfer Station**	Wilderness Quarry, Mitcheldean, Gloucestershire	Forest of Dean District	48014	65
‡ **Household, Commercial & Industrial Waste Transfer Station**	The Old Post Office, Newport, Berkeley, Gloucestershire	Stroud District	48036	66
‡ **Household, Commercial & Industrial Waste Transfer Station**	Bendalls, Canal Works, Harbour Road, Lydney, Gloucestershire	Forest of Dean District	48002	67
‡ **Household, Commercial & Industrial Waste Transfer Station**	Old Station Yard, Chalford, Stroud, Gloucestershire	Stroud District	48016	68
‡ **Household, Commercial & Industrial Waste Transfer Station**	Hemmings Waste Management Ltd, Unit 46a Ind Est, Harbour Road, Lydney, Gloucestershire	Forest of Dean District	48017	69
‡ **Household, Commercial & Industrial Waste Transfer Station**	Bell Waste, Former Coal Wharf, Northern United Site, Hawkwell, Drybrook, Gloucestershire	Forest of Dean District	48026	70
‡ **Household, Commercial & Industrial Waste Transfer Station**	Keyway, Unit 1, Abbey Road, Hempstead, Gloucester,	Gloucester City	48045	74
‡ **Household, Commercial & Industrial Waste Transfer Station**	Abbey Road, Hempstead, Gloucester,	Gloucester City	48054	75
‡ **Household, Commercial & Industrial Waste Transfer Station**	Station Yard, Newent, Gloucestershire,	Forest of Dean District	48055	76

Appendix 5 – Gloucestershire Waste Local Plan

Type of Facility	Site	Local Authority	EA License Ref.	Map No.
‡ **Household, Commercial & Industrial Waste Transfer Station**	Elliot Road, Love Lane, Cirencester,	Cotswold District	86073	89
‡ **Household, Commercial & Industrial Waste Transfer Station**	Lower Lode Depot, Lower Lode Lane, Tewkesbury, Gloucester,	Tewkesbury Borough	48053	90
‡ **Household, Commercial & Industrial Waste Transfer Station**	Old Quarry Works, Fosse Cross, Chedworth, Cheltenham, Glos	Cotswold District	86081	91
‡ **Household, Commercial & Industrial Waste Transfer Station/HWS**	Cory Environmental (Gloucestershire) Ltd, Hempstead, Gloucester,	Gloucester City	48039	71
‡ **Household, Commercial & Industrial Waste Transfer Station/HWS**	Cory Environmental (Gloucestershire) Ltd, Coleford, Gloucestershire	Forest of Dean District	48040	72
‡ **Household, Commercial & Industrial Waste Transfer Station/HWS**	Cory Environmental (Gloucestershire) Ltd, Horsley, Near Nailsworth, Gloucestershire	Cotswold District	48041	73
‡ **Household, Commercial & Industrial Waste Transfer Station/Recycling Centre**	Multi-Agg Ltd, Cowfiled Mill, Northway Lane, Newtown Industrial Estate, Tewkesbury, Gloucestershire	Tewkesbury Borough	48191	77
‡ **Household, Commercial & Industrial Waste Transfer Station/Treatment Plant**	Hemmings Waste Management Ltd, Unit 46a & 47 Lydney Industrial Est, Harbour Road, Lydney Glos	Forest of Dean District	48060	62
‡ **Household, Commercial & Industrial Waste Transfer Station/Treatment Plant**	Smith's Ltd, Moreton Valence, Gloucestershire,	Stroud District	48196	78
‡ **Transfer Station Taking Non Biodegradable Wastes**	Woodgate Farm, Organs Green, Newent, Gloucestershire,	Forest of Dean District	48048	82
‡ **Special Waste Transfer Station**	Englehard Industries Ltd, Valley Road, Cinderford, Glos	Forest of Dean District	48015	92
‡ **Special Waste Transfer Station**	Site 4, Abbey Road, Hempstead, Gloucester	Gloucester City	48021	93
‡ **Special Waste Transfer Station**	Monkmeadow, Gloucester	Gloucester City	48028	94
‡ **Clinical Waste Transfer Station**	Gloucestershire Royal Hospital, Great Western Road, Gloucester	Gloucester City	48030	79
‡ **Clinical Waste Transfer Station**	Cory Environmental (Gloucestershire) Ltd, Piffs Elm, Stoke Road, Elmstone Hardwicke, Gloucester,	Tewkesbury Borough	48025	80

Appendix 5 – Gloucestershire Waste Local Plan

Type of Facility	Site	Local Authority	EA License Ref.	Map No.
‡ **Household Waste Amenity Site**	Cheltenham Borough Council, Swindon Road, Cheltenham, Gloucestershire	Cheltenham Borough	48031	81
‡ **Incinerator/Treatment Plant**	Fosse Dogotel & Cattery, Cricklade Rd, Cirencester, Glos	Cotswold District	86088	31
‡ **Incinerator/Treatment Plant**	Limekiln Farm, Middle Lypiatt, Stroud, Gloucestershire	Stroud District	48032	32
‡ **Composting Facility**	Tree Management, Bradley Farm, Bradley Green, Wotton Under Edge, Glos	Stroud District	48034	96
‡ **Composting Facility**	Welsh Way Treatment, Sunhill, Cirencester, Gloucestershire	Cotswold District	86089	97
‡ **Composting Facility**	Dawn House, Dawn Field, Near Blakeney, Gloucestershire	Forest of Dean District	48052	16
~~‡ **Material Recycling Treatment Facility**~~	~~The Old Airfield, Moreton Valence, Gloucestershire~~	~~Stroud District~~	~~48000~~	~~83~~
~~‡ **Material Recycling Treatment Facility**~~	~~Moreton Valnce Airfield, Moreton Valence, Glos~~	~~Stroud District~~	~~48189~~	~~84~~
‡ **Physical Treatment Facility**	Allstone Sand and Gravels Aggregates Trading Com, Allstone House, Myers Road, Gloucester,	Gloucester City	48003	85
‡ **Chemical Treatment Facility**	Cleansing Service Group Ltd, Sandhurst Lane, Gloucestershire,	Tewkesbury Borough	48008	87
‡ **Biological Treatment Facility**	Severn Trent Water Ltd, Hayden Lane, Cheltenham, Glos	Cheltenham Borough	48056	88
‡ **Sewage Treatment Works**	Coates Sewage Treatment Works	Cotswold District	CSAC 0359	98
‡ **Sewage Treatment Works**	Whittington Sewage Treatment Works	Cotswold District	CSAC 1339	99
‡ **Sewage Treatment Works**	Withington Sewage Treatment Works	Cotswold District	CSAC 1340	100
‡ **Sewage Treatment Works**	Bibury Sewage Treatment Works	Cotswold District	CSSC 1084	101
‡ **Sewage Treatment Works**	Coberley Sewage Treatment Works	Cotswold District	CSSC 1089	102
‡ **Sewage Treatment Works**	Longborough Sewage Treatment Works	Cotswold District	CSSC 1405	103
‡ **Sewage Treatment Works**	Sherbourne Sewage Treatment Works	Cotswold District	CSSC 1432	104
‡ **Sewage Treatment Works**	Ampney St Peter Sewage Treatment Works	Cotswold District	CSSC 2452	105
‡ **Sewage Treatment Works**	Lechlade Sewage Treatment Works	Cotswold District	CTCR 1797	106
‡ **Sewage Treatment Works**	Broadwell Sewage Treatment Works	Cotswold District	CTCR 1844	107

Appendix 5 – Gloucestershire Waste Local Plan

Type of Facility	Site	Local Authority	EA License Ref.	Map No.
‡ **Sewage Treatment Works**	Fairford Sewage Treatment Works	Cotswold District	CATM 3517	108
‡ **Sewage Treatment Works**	Fairford Sewage Treatment Works	Cotswold District	CATM 3518	109
‡ **Sewage Treatment Works**	Kempsford Sewage Treatment Works	Cotswold District	CATM 3519	110
‡ **Sewage Treatment Works**	Bourton on the Water Sewage Treatment Works	Cotswold District	CNTD 0002	111
‡ **Sewage Treatment Works**	Guiting Power Sewage Treatment Works	Cotswold District	CNTD 0006	112
‡ **Sewage Treatment Works**	Bourton on the Water Sewage Treatment Works	Cotswold District	CTCR 2036	113
‡ **Sewage Treatment Works**	Andoversford Sewage Treatment Works	Cotswold District	CTCR 2090	114
‡ **Sewage Treatment Works**	Moreton in Marsh Sewage Treatment Works	Cotswold District	CTCR 2092	115
‡ **Sewage Treatment Works**	Storm Sewage Irrigation Area, Moreton in Marsh	Cotswold District	CTCR 2093	116
‡ **Sewage Treatment Works**	Naunton Sewage Treatment Works	Cotswold District	CNTD 0011	117
‡ **Sewage Treatment Works**	Kempsford Sewage Treatment Works	Cotswold District	CATM 3520	118
‡ **Sewage Treatment Works**	Andoversford Sewage Treatment Works	Cotswold District	CNTD 0001	119
‡ **Sewage Treatment Works**	Northleach Sewage Treatment Works	Cotswold District	CNTD 0012	120
‡ **Sewage Treatment Works**	Bledington Sewage Treatment Works	Cotswold District	CNTW 1369	121
‡ **Sewage Treatment Works**	Cirencester Sewage Treatment Works	Cotswold District	CTCR 1750	122
‡ **Sewage Treatment Works**	Moreton in Marsh Sewage Treatment Works	Cotswold District	CTCR 2091	123
* **Sewage Treatment Works**	Apperley (*WRW)	Tewkesbury Borough	S/20/25711/R	47
* **Sewage Treatment Works**	Badgeworth (WRW)	Tewkesbury Borough	S/20/08568/R	28
* **Sewage Treatment Works**	Brockhampton (WRW)	Tewkesbury Borough	S/17/25389/R	29
* **Sewage Treatment Works**	Cheltenham Hayden (WRW)	Tewkesbury Borough	S/20/25430/R	30
* **Sewage Treatment Works**	Great Washbourne (WRW)	Tewkesbury Borough	S/17/25185/R	124
* **Sewage Treatment Works**	Laverton (WRW)	Tewkesbury Borough	S/18/25216/R	125
* **Sewage Treatment Works**	Ripple Sewage Treatment Works	Tewkesbury Borough	S/08/26024/R	126

Appendix 5 – Gloucestershire Waste Local Plan

Type of Facility	Site	Local Authority	EA License Ref.	Map No.
*** Sewage Treatment Works**	Stanton Sewage Treatment Works	Tewkesbury Borough	S/18/12751/R	127
*** Sewage Treatment Works**	Tewkesbury Sewage Treatment Works	Tewkesbury Borough	S/17/26106/R	128
*** Sewage Treatment Works**	Twyning Sewage Treatment Works	Tewkesbury Borough	S/17/25353/R	129
*** Sewage Treatment Works**	Woolstone (WRW)	Tewkesbury Borough	S/17/26098/R	130
*** Sewage Treatment Works**	Gloucester (Longford) Sewage Treatment Works	Tewkesbury Borough	S/20/20654/R	131
*** Sewage Treatment Works**	Stoke Orchard Sewage Treatment Works	Tewkesbury Borough	S/17/26029/R	132
*** Sewage Treatment Works**	Tirley Sewage Treatment Works	Tewkesbury Borough	S/20/25750/R	133
*** Sewage Treatment Works**	Winchcombe Sewage Treatment Works	Tewkesbury Borough	S/18/08621/R	134
*** Sewage Treatment Works**	Wormington Sewage Treatment Works	Tewkesbury Borough	S/18/20103/R	135
*** Sewage Treatment Works**	Southwick Park Sewage Treatment Works	Tewkesbury Borough	S/20/20104/R	136
*** Sewage Treatment Works**	Dumbleton Sewage Treatment Works	Tewkesbury Borough	S/17/26001/R	137
*** Sewage Treatment Works**	Cinderford Crump Meadow (WRW)	Forest of Dean District	S/20/25975/R	138
*** Sewage Treatment Works**	Dymock (WRW)	Forest of Dean District	S/21/25016/R	139
*** Sewage Treatment Works**	Dymock (Hallwood Green) (WRW)	Forest of Dean District	S/21/26030/R	140
*** Sewage Treatment Works**	Kempley Sewage Treatment Works	Forest of Dean District	S/21/26028/R	141
*** Sewage Treatment Works**	Littledean (WRW)	Forest of Dean District	S/20/12713/R	142
*** Sewage Treatment Works**	Longhope Sewage Treatment Works	Forest of Dean District	S/20/08537/R	143
*** Sewage Treatment Works**	Newent Sewage Treatment Works	Forest of Dean District	S/21/26094/R	144
*** Sewage Treatment Works**	Newent (Lancaster Terrace) (WRW)	Forest of Dean District	S/21/12709/R	145
*** Sewage Treatment Works**	Huntley Sewage Treatment Works	Forest of Dean District	S/20/23099/R	146
*** Sewage Treatment Works**	Bromsberrow (WRW)	Forest of Dean Distinct	S/21/25805/R	147
*** Sewage Treatment Works**	Churcham Sewage Treatment Works	Forest of Dean District	S/20/25769/R	148
*** Sewage Treatment Works**	Coaley (WRW)	Stroud District	S/20/12672/R	149

Appendix 5 – Gloucestershire Waste Local Plan

Type of Facility	Site	Local Authority	EA License Ref.	Map No.
*** Sewage Treatment Works**	Frampton Sewage Treatment Works	Stroud District	S/20/25455/R	150
*** Sewage Treatment Works**	Gloucester (Netheridge) (WRW)	Gloucester City	S/20/21356/R	151

*(WRW): - Water Reclamation Works

Source: (‡) Environment Agency Waste Management Licences / Feb 2003

(*) Environment Agency Discharge Consents Data (*relating to sewage*) for Lower Severn District Councils within Gloucestershire / August *2003*

(N.B. THIS DATA ONLY REFERS TO THE MIDLANDS REGION OF THE ENVIRONMENT AGENCY AND NOT THE NEIGHBOURING THAMES, WELSH AND SOUTH-WEST REGIONS)

PUMPING STATIONS *(not plotted on Appendix 5 Map)*

Site	Local Authority	EA License Ref.
Quedgeley Pumping Station	**Stroud**	**S/20/26115/O**
Maisemore Pumping Station	**Tewkesbury Borough**	**S/20/20190/O**
Broadoak Pumping Station	**Forest of Dean**	**S/20/25720/O**
Brockthorpe Pumping Station	**Stroud**	**S/20/23191/O**
Edendale Pumping Station	**Cheltenham Borough**	**S/20/21414/O**
Sudmeadow Pumping Station	**Gloucester City**	**S/20/21412/O**
Bream Sewage Pumping Station	**Forest of Dean**	**S/20/25180/O**
Welch Road Pumping Station	**Cheltenham Borough**	**S/20/21419/O**
Ellwood Pumping Station	**Forest of Dean**	**S/20/25181/OG**
Alvington Pumping Station	**Forest of Dean**	**S/20/21755/O**
Sping Dale Pumping Station	**Forest of Dean**	**S/20/22155/O**
Pilgrove Pumping Station	**Cheltenham Borough**	**S/20/25182/O**

Site	Local Authority	EA License Ref.
Westgate Street Pumping Station	**Gloucester City**	**S/20/22482/O**
Churcham Pumping Station	**Forest of Dean**	**S/20/22194/O**
Aylburton Pumping Station	**Forest of Dean**	**S/20/23200/O**
Overlook Close Pumping Station	**Gloucester City**	**S/20/22154/O**
Ford House Pumping Station	**Forest of Dean**	**S/21/2166t/O**
Bromsberrow Pumping Station	**Forest of Dean**	**S/21/23091/O**
Badgeworth Pumping Station	**Tewkesbury Borough**	**S/20/23190/O**

Source: Environment Agency Discharge Consents data (*relating to sewage*) for Lower Severn District Councils within Gloucestershire / August 2003

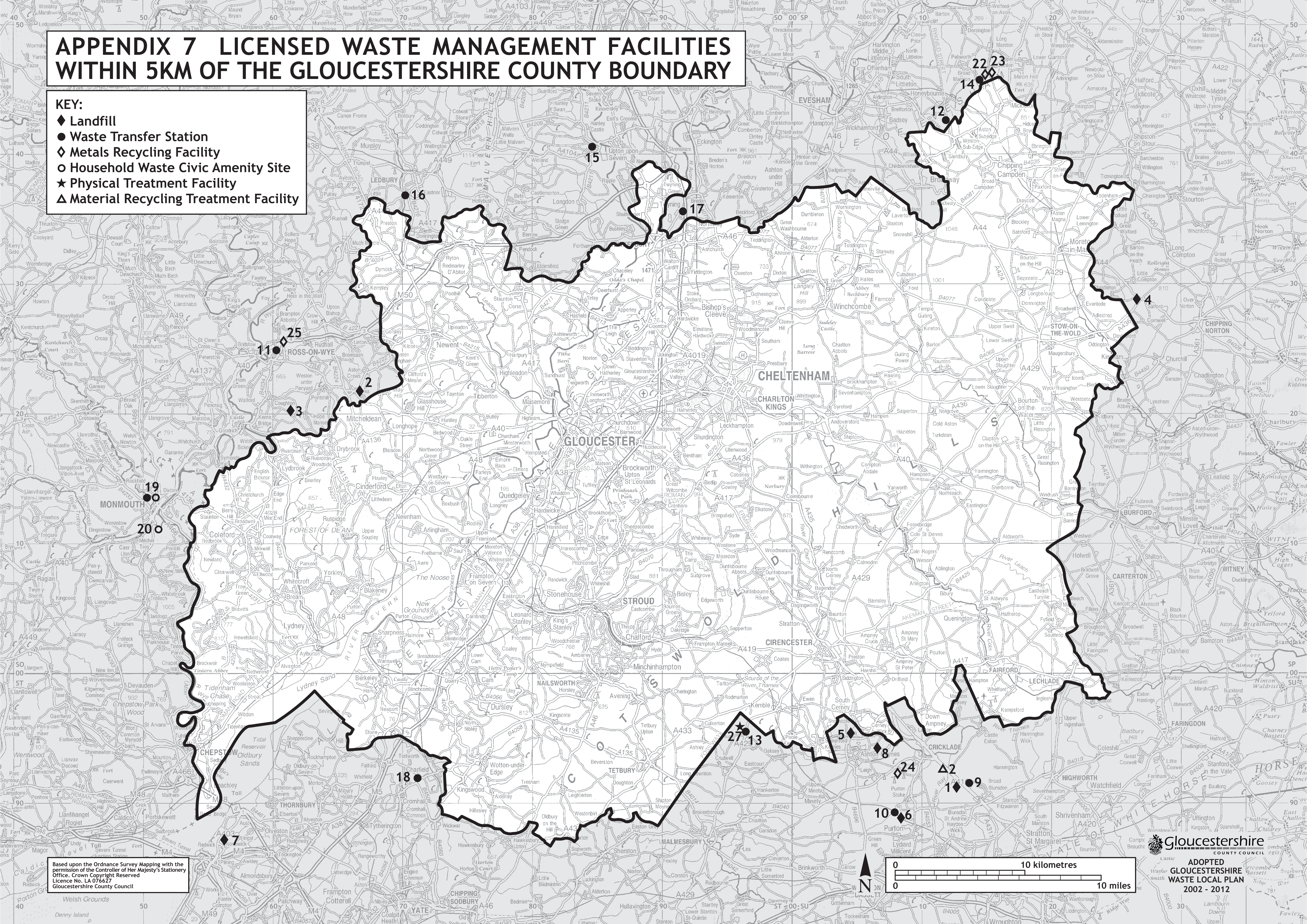
N.B. The *'Type of Facility'* has been taken directly from the title on the Environment Agency License and therefore does not always reflect the current activity at a particular site. This is because the license can include a number of activities not mentioned in the title. The Operator may not be undertaking all of the activities or the activity as of the license. Also some of the activities that may occur are exempt from licensing.

HWS = Household Waste Site

APPENDIX 6: POLICY/OBJECTIVE MATRIX

Policy	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7	Objective 8	Objective 9	Objective 10	Objective 11	Objective 12
	To reduce the amount of waste produced in Gloucestershire	To make the best use of the waste produced within Gloucestershire through increased re-use and recovery	To encourage sensitive waste management practices within Gloucestershire in order to preserve or enhance the overall quality of the environment and avoid risks to human health.	To achieve a more sustainable waste management system by using the Best Practicable Environmental Option methodology in decision making, and taking into account the guiding principles of the Waste Hierarchy, Proximity Principle and Regional Self Sufficiency	To assist in creating economic prosperity and employment for Gloucestershire by encouraging competitiveness, meeting the needs of business, and in considering what new waste management enterprises will be required	To ensure that waste management issues are properly considered and opportunities-are incorporated into new development proposals	To minimise adverse environmental impacts resulting from the handling, processing, transport and disposal of waste.	To protect public amenity from the adverse impact of waste management and to have regard to the need to protect areas of designated landscape and nature conservation value from inappropriate development	To make the most efficient use of land by re-using appropriate brownfield land, industrial land and existing waste management sites in preference to undesignated green field sites	To minimise the environmental impacts of transporting waste by applying the proximity principle, and encouraging more sustainable means of transport for the re-use, recovery and disposal of waste	To provide clear guidance on the locational criteria that must be met before planning permission can be granted, and set out policies on planning conditions, planning obligations, monitoring and enforcement.	To safeguard sites suitable for the location of waste management facilities from other proposed development.
1	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
2	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
3	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
4	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
5	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
6	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
7	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
8	N/A	**Yes**	**Yes**	N/A	**Yes**	N/A	N/A	N/A	**Yes**	**Yes**	**Yes**	N/A
9	N/A	**Yes**	**Yes**	N/A	**Yes**	N/A	N/A	N/A	**Yes**	**Yes**	**Yes**	N/A
10	N/A	**Yes**	**Yes**	N/A	**Yes**	N/A	N/A	N/A	**Yes**	**Yes**	**Yes**	N/A
11	N/A	**Yes**	**Yes**	N/A	**Yes**	N/A	N/A	N/A	N/A	**Yes**	N/A	N/A
12	N/A	**Yes**	**Yes**	N/A	**Yes**	N/A	N/A	N/A	**Yes**	**Yes**	**Yes**	N/A
13	N/A	**Yes**	**Yes**	N/A	**Yes**	N/A	N/A	N/A	**Yes**	**Yes**	**Yes**	N/A
14	N/A	**Yes**	**Yes**	N/A	**Yes**	N/A	N/A	N/A	**Yes**	**Yes**	**Yes**	N/A
15	N/A	**Yes**	**Yes**	N/A	**Yes**	N/A	N/A	N/A	**Yes**	**Yes**	**Yes**	N/A
16	N/A	**Yes**	**Yes**	N/A	**Yes**	N/A	N/A	N/A	**Yes**	**Yes**	**Yes**	N/A
17	N/A	**Yes**	**Yes**	N/A	**Yes**	N/A	N/A	N/A	**Yes**	**Yes**	**Yes**	N/A
18	N/A	**Yes**	**Yes**	N/A	**Yes**	N/A	N/A	N/A	**Yes**	**Yes**	**Yes**	N/A
19	N/A	**Yes**	**Yes**	N/A	**Yes**	N/A	N/A	N/A	**Yes**	**Yes**	**Yes**	N/A
20	N/A	**Yes**	**Yes**	N/A	**Yes**	N/A	N/A	N/A	**Yes**	**Yes**	**Yes**	N/A
21	N/A	**Yes**	**Yes**	N/A	**Yes**	N/A	N/A	N/A	**Yes**	**Yes**	**Yes**	N/A
22	N/A	**Yes**	**Yes**	N/A	**Yes**	N/A	N/A	N/A	**Yes**	**Yes**	**Yes**	N/A
23	N/A	N/A	**Yes**	**Yes**	N/A	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
24	N/A	N/A	**Yes**	**Yes**	N/A	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
25	N/A	N/A	**Yes**	**Yes**	N/A	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
26	N/A	N/A	**Yes**	**Yes**	N/A	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
27	N/A	N/A	**Yes**	**Yes**	N/A	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
28	N/A	N/A	**Yes**	**Yes**	N/A	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
29	N/A	N/A	**Yes**	**Yes**	N/A	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
30	N/A	N/A	**Yes**	**Yes**	N/A	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
31	N/A	N/A	**Yes**	**Yes**	N/A	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
32	N/A	N/A	**Yes**	**Yes**	N/A	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
33	N/A	N/A	**Yes**	**Yes**	N/A	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
34	N/A	N/A	**Yes**	**Yes**	N/A	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
35	N/A	N/A	**Yes**	**Yes**	N/A	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
36	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
37	N/A	N/A	**Yes**	N/A	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
38	N/A	N/A	**Yes**	N/A	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
39	N/A	N/A	**Yes**	N/A	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
40	N/A	N/A	**Yes**	N/A	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
41	N/A	N/A	**Yes**	N/A	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
42	N/A	N/A	**Yes**	N/A	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
43	N/A	N/A	**Yes**	N/A	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
44	N/A	N/A	**Yes**	N/A	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A
45	N/A	N/A	**Yes**	N/A	N/A	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	N/A

APPENDIX 7 LICENSED WASTE MANAGEMENT FACILITIES WITHIN 5KM OF THE GLOUCESTERSHIRE COUNTY BOUNDARY



Schedule of Licensed Waste Management Facilities Bordering Gloucestershire

Type of Facility		Site	Local Authority	EA License Ref.	Map No.
‡ Landfill	**-**	Chapel Farm Landfill Site, Blunsdon Hill, Swindon, Wilts	Swindon Borough	86178 & 86202	1
# Landfill	**Taking non Inert waste**	The Lea Landfill, Ross-on-Wye	Herefordshire CC	30192	2
# Landfill	**Taking Inert waste**	Howle Hill Landfill, Ross-on-Wye	Herefordshire CC	30243	3
‡ Landfill	**Taking Inert waste**	Little Compton, Moreton-in-Marsh, Gloucestershire	Stratford-on-Avon	86098	4
‡ Landfill	**Taking Non-Biodegradable Waste**	Barnground, Ashton Keynes, Swindon, Wilts	North Wiltshire District	86172	5
‡ Landfill	**(Co-Disposal Site)**	Purton, Mopes Lane, Purton, Swindon, Wilts	North Wiltshire District	86171	6
*** Landfill**	**(Co-Disposal Site)**	Cliffeville Ltd, Adjacent to A403, Aust, South Gloucestershire	South Gloucestershire	27178	7
‡ Landfill	**Taking Other Wastes**	Cleveland Farm, Ashton Keynes, Swindon, Wilts	North Wiltshire District	86176	8
= Household, Commercial & Industrial Waste Transfer Station		Chapel Farm, Ashton Keynes, Blunsdon Hill, Swindon, Wilts	Swindon Borough	86242	9
= Household, Commercial & Industrial Waste Transfer Station		Adjacent to Purton Landfill, Mopes Lane, Swindon, Wilts	North Wiltshire District	86225	10
# Household, Commercial & Industrial Waste Transfer Station		Ross-on-Wye HHW & Recycling Centre, Station Approach, Ross-on-Wye	Herefordshire CC	30084	11
< Household, Commercial & Industrial Waste Transfer Station		HT Waste, Buckle Street, Honeybourne, Evesham	Wychavon District	48187	12
‡ Household, Commercial & Industrial Waste Transfer Station		Unit 1 & 2, Kemble Business Park, Crudwell, Malmesbury, Wilts	North Wiltshire District	86225	13
‡ Household, Commercial & Industrial Waste Transfer Station		The Bird Group of Companies Ltd, Long Marsden, Stratford upon Avon	Stratford-on-Avon District	48164	14
: Transfer Station		Hanley Castle Trasnfer Station, Hanley Castle Road, Upon on Severn, Worcs	Worcestershire CC	48152	15
# Waste Transfer Station		Ledbury Household and Commercial & Industrial Waste Site, Little Marcle Road, Ledbury	Herefordshire CC	48154	16
< Clinical Waste Transfer Station		CW Willis, Unit 1, Croft Farm, Bredons, Hardwicke, Tewkesbury	Worcestershire CC	48175	17
*** Special Waste Transfer Station**		Cromhall Quarry, Cromhall, Wotton-under-Edge, South Gloucestershire	South Gloucestershire	26060	18

Schedule of Licensed Waste Management Facilities Bordering Gloucestershire

Type of Facility	Site	Local Authority	EA License Ref.	Map No.
~ Transfer Station & Civic Amenity Site	Five Lanes Transfer Station, Five Lanes Quarry, Caerwent, Nr. Chepstow	Monmouthshire CC	30086	19
~ Household Waste Amenity Site	Dragon Waste, Mitchel Troy Civic Amenity Site, Monmouth	Monmouthshire CC	30118	20
- Mitchel Try Civic Amenity Site under contract only to accept waste from Monmouthshire -				
‡ Metal Recycling	Simms Group UK Ltd, Long Marsden, Stratford-Upon-Avon	Stratford-on-Avon District	48167	22
‡ Metal Recycling	Simms Group UK Ltd, Long Marsden, Stratford-Upon-Avon	Stratford-on-Avon District	48184	23
‡ Metal Recycling Site	Chelworth Industrial Est., Chelworth Road, Cricklade, Swindon	North Wiltshire District	86168	24
*** Metal Recycling Site (Mixed Metal)**	Mann Recycling, Ashburton Industrial Est., Ross-on-Wye	Herefordshire CC	30070	25
‡ Material Recycling Treatment Facility	Kingshill Recycling Centre, Cricklade, Nr Swindon, Witls	North Wiltshire District	86170	26
‡ Physical Treatment Facility	Kemble Clinical Waste Treatment Units 1 & 2, Kemble Business Park, Crudwell, Malmesbury, Wilts	North Wiltshire District	86254	27

Source: **(‡)** Environment Agency (Thames West) / July 2003
(*) Environment Agency (South West Region) / July 2003
(<) Environment Agency (East Midlands) / June 2003
(=) Wiltshire and Swindon Waste Local Plan / September 2002
(#) Herefordshire County Council / January 2003
(:) Worcestershire County Council / January 2003
(~) Monmouthshire County Council / January 2003

NB: The *'type of facility'* has been taken directly from the information provided by the data sources and therefore does not always reflect the current activity at a particular site. The information provided is dependant upon the resources available for maintaining and publishing up-to-date and accurate data. Furthermore In terms of the Environment Agency data, the operator may not be undertaking all or some of the activities under the requirement of the EA license or may be carrying out work exempt from such a license.

Waste Managed in Gloucestershire During 2000/01 Period

Construction and Demolition Waste			Source: Report for Gloucestershire County Council (Oct 2001) Environment Agency
Landfilled	187,929	tonnes	This is the EA figure for landfilled inert waste
Transferred	155,914	tonnes	According to EA figures approximately 40% of these wastes are recycled, the rest are sent on to landfill.
Treated	38,250	tonnes	According to EA figures approximately 75% of these wastes are recycled, the rest are sent on to landfill.
C&D Total	**278,982**	**tonnes**	
Percentage of Total	**25%**		

Commercial Industrial Waste			Source: Report for Gloucestershire County Council (Oct 2001) Environment Agency
Biodegradable Landfill (not including MSW)	329,771	tonnes	This is the EA biodegradable figure minus landfilled MSW (562,046 - 232,275).
Transferred	51,084	tonnes	All of this waste is believed to have been taken on to landfill
Treated	54,375	tonnes	According to EA figures approximately 75% of these wastes are recycled, the rest are sent on to landfill.
C&I Total	**370,552**	**tonnes**	
Percentage of Total	**33%**		Not including metal waste

Waste Accepted at Licensed Metal Recycling Sites			Source: Report for Gloucestershire County Council (Oct 2001) Environment Agency
Metal Recycling	154,320	tonnes	This figure does not include special metal wastes.
Special Metal Recycling	6,882	tonnes	EA advice is that this comprises mostly batteries and oil. This figure is included with the special wastes.
Percentage of Total	**14%**		

Special Waste			Source: Report for Gloucestershire County Council (Oct 2001) Environment Agency
Treatment Facilities	9,784	tonnes	EA figures show that all of this is sent on to landfill
Special Metal Recycling	6,882	tonnes	EA advice is that this comprises mostly batteries and oil
CA sites	171	tonnes	
Transfer Stations	17,671	tonnes	Approx 95% of transferred special waste is believed to be landfilled.
Landfilled	37,955	tonnes	This is assumed to include a significant element of waste from transfer stations
Total Recovery	7,937	tonnes	It is assumed that waste passing through a transfer station whivch is ultimately recovered (believed to be approx 5%) is already included in this figure.
Special Waste Total	**45,892**	**tonnes**	
Percentage of Total	**4%**		

Municipal Waste			Source: Gloucestershire Waste Disposal Authority
HW disposed	223,745	tonnes	Household Waste
Trade waste element	8,530	tonnes	
MSW disposed	232,275	tonnes	MSW comprises HW with a small amount of collected trade waste
CA site recycling	12,484	tonnes	
WCA recycling	23,586	tonnes	
3rd party recycling	157	tonnes	
HW Total	*259,972*	*tonnes*	*Total Household Waste, included in the MSW total.*
Total HW Recycled	*36,227*	*tonnes*	*Included in the MSW recycled figure.*
HW recycling	*14%*		*Given as a % of HW*
MSW Total	**268,502**	**tonnes**	
MSW Percentage of Total	**24%**		

Explanatory Notes

Transferred Waste: This includes the sorting and transfer of wastes for bulk recovery and reprocessing as well as transfer to disposal or treatment facilities. The transfer may be within or outside Gloucestershire. There is the possibility that waste captured in this section has already been accounted for in the managed waste figures. From EA figures it is assumed that 40% of inert transfered waste is recycled and not included in any other total. Where applicable 40% of this inert figure is added to other data. The fraction of biodegradable waste that passes through transfer stations for recycling is believed to be negligible when viewed in the context of total arisings. For the purposes of this calculation and in order to keep things as simple as possible all biodegradable transferred waste is assumed to be landfilled. Approx 95% of transferred special waste is believed to be landfilled. It is assumed that the 95% is already included in the landfilled figure. 5% of transferred waste has been added to the recovered figure.

Treated Waste: It is assumed from EA figures that approximately 75% of those wastes that have been treated are then recycled. The remaining 25% is taken on for final disposal.

Environment Agency Report for Gloucestershire: The data in the EA Report for Gloucestershire is based on the EA site return forms (2000/01) for licensed waste management facilities as required in the modification of all site licenses within Gloucestershire. These figures do not include returns from those sites which are exempt from waste management licensing and as such the waste arisings are likely to be slightly higher than those forecast.

Waste Disposal Authority Data: Accurate figures of wastes delivered by the WCA's into landfill sites are provided to the County's WDA as part of its contract. This includes wastes from Household Collections, Trade Waste street cleaning and civic amenity wastes for disposal. All landfill sites used for the disposal of MSW have an audited weighbridge and also have to provide returns on waste tonnage's entering into these sites to the Environment Agency and Customs and Excise for the purposes of landfill tax calculations.

Summary of Waste Managed in Gloucestershire for 2000/01

Total Waste Managed in Gloucestershire 2000/01	**1,118,248**	**tonnes**
non landfill wastes	**330,318**	**tonnes**
landfilled wastes	**787,930**	**tonnes**
% non landfilled	**30%**	
% to landfill	**70%**	

Previous MSW Growth Rates											Source: Gloucestershire Waste Disposal Authority
Financial Year		**93/94**	**94/95**	**95/96**	**96/97**	**97/98**	**98/99**	**99/00**	**00/01**	**01/02**	**Average**
Recycled		21,455	22,817	27,568	25,039	28,073	28,278	29,216	36,227	38,113	28,532
Landfilled		198,108	204,242	199,128	214,512	233,630	228,750	239,364	232,275	238,846	220,984
Total		**219,563**	**227,059**	**226,696**	**239,551**	**261,703**	**257,028**	**268,580**	**268,502**	**276,959**	249,516
Tonnes Growth pa			7,496	-363	12,855	22,152	-4,675	11,552	-78	8,457	7,175
Growth Rate Per Year			3.41%	-0.16%	5.67%	9.25%	-1.79%	4.49%	-0.03%	3.15%	3.00%
Mean Average Growth				1.63%	2.97%	4.54%	3.28%	3.48%	2.98%	3.00%	3.13%
% Increase in Disposal			3.1%	-2.5%	7.7%	8.9%	-2.1%	4.6%	-3.0%	2.8%	2.46%
% Increase in Recycling			6.3%	20.8%	-9.2%	12.1%	0.7%	3.3%	24.0%	5.2%	7.92%
Calendar Year	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**Average**
Recycled	22,876	22,340	37,272	39,166	25,988	28,244	27,606	36,195	38,022	44,421	32,213
Landfilled	198,280	202,635	189,307	198,159	231,103	229,082	234,606	233,795	239,555	234,720	219,124
Total	**221,156**	**224,975**	**226,579**	**237,325**	**257,091**	**257,326**	**262,212**	**269,990**	**277,577**	**279,141**	251,337
Tonnes Growth pa		3,819	1,604	10,746	19,765	235	4,886	7,778	7,587	1,563	6,443
Growth Rate Per Year		1.7%	0.7%	4.7%	8.3%	0.1%	1.9%	3.0%	2.8%	0.6%	2.6%
Mean Average Growth			1.2%	2.4%	3.9%	3.1%	2.9%	2.9%	2.9%	2.6%	2.8%

Waste Management Facilities in Gloucestershire

Source: Addendum Report for Gloucestershire County Council (Oct 2001) Environment Agency

Type of Facility	Number of facilities with licences	Number of operational Facilities	Date
Treatment	7	7	October 2001
Scrap yard	30	23	
Civic Amenity	5	5	
Landfill	25	11	
Transfer	32	27	
Composting	2	2	
Total	**101**	**75**	
Exempt Facilities	447	-	2nd Aug 2001 (though it is likely that not all of these sites are still operational)

Waste Management Licences are required for waste management processes under SI 1994 No. 1056 'Environmental Protection' of The Waste Management Licensing Regulations 1994. However, these figures are indicative as the number licences in Gloucestershire is constantly changing, and it is believed that not all of those activities which hold an exempt are still operating.

Exempt activities comprise those which are exempt from holding a waste management licence by means of the scale and type of operation which they are engaged in. These exemptions can be provided for waste recovery operations (or for non-hazardous waste disposal operations at the place the waste is produced), only if they meet specified criteria. Ecxemptions are a way of providing a lighter regulatory touch to encourage certain waste recovery activities without polluting the environment or harming human health.

Exempt Sites in Gloucestershire from Environment Agency Database - Tewkesbury Office

Waste Deposits into Gloucestershire Landfill Sites

Source: Report for Gloucestershire County Council (June 2000) Environment Agency as updated 2001

Year	Biodegr'ble*	Biodeg'ble Change	MSW (included in biodeg'ble figure)	MSW Change	Anomaly of C&D waste accepted by Walton Hill Farm	Inert	Inert Change	Special	Special Waste Change	Total	Total % Change
1995/96	712,333		199,128		624,000	286,160		52,262		**1,674,755**	
1996/97			214,512	7%							
1997/98	805,488	12%	233,630	8%	-	254,564	-12%	23,771	-120%	**1,083,823**	-55%
1998/99	611,225	-32%	228,750	-2%	-	280,199	9%	23,247	-2%	**914,671**	-18%
1999/2000	646,261	5%	239,364	4%	-	165,857	-69%	22,297	-4%	**834,415**	-10%
2000/2001	562,046	-15%	232,275	-3%	-	187,929	12%	37,955	41%	**787,930**	-6%
Average Change		**-7%**		**2%**			**-15%**		**-21%**		**-22%**

The 1995/96 figure for biodegradable contained a potential anomaly of 624,000 tonnes of C&D waste accepted by Walton Hill Farm, Deerhurst during 1995/96. This figure has been separated into its own column. There are no figures in the EA report for 1996/97 contained in their report as although this data was collected it is not adequately standardised to enable its publication in any Agency document. The MSW figure for that year has been obtained from the WDA.

Cap and cover constitutes around 10% of the voidspace. Industry state that the inert landfill figure contains soils which have been used to engineer/restore the site, therefore 5% (derived from having the 10% figure, as capping would probably comprise clay rather than utilise the landfilled inert waste) of the biodegradable figure needs to be subtracted from the inert figure to obtain the actual ar that was landfilled, otherwise part of the inert figure is double counted in the cap and cover deduction.

Municipal Solid Waste Arisings (based on three growth rate scenarios)						
Year	MSW 3% arisings increase predictions		MSW variable % arisings predictions		MSW 1% arisings increase predictions	
	3% each year	3% of 2000/01 added to each year	Variable %	%	1% each year	1% of 2000/01 added to each year
2000-2001	268,502	268,502	268,502	3%	268,502	268,502
2001-2002	276,557	276,557	276,557	3%	271,187	271,187
2002-2003	284,854	284,612	284,854	3%	273,899	273,872
2003-2004	293,399	292,909	293,399	3%	276,638	276,584
2004-2005	302,201	301,454	302,201	3%	279,404	279,323
2005-2006	311,267	310,256	311,267	3%	282,198	282,089
2006-2007	320,605	319,322	320,605	3%	285,020	284,883
2007-2008	330,223	328,660	330,223	3%	287,870	287,705
2008-2009	340,130	338,279	336,828	2%	290,749	290,555
2009-2010	350,334	348,185	343,564	2%	293,657	293,434
2010-2011	360,844	358,389	350,436	2%	296,593	296,342
2011-2012	371,669	368,899	357,445	2%	299,559	299,278
2012-2013	**382,820**	**379,724**	**361,019**	**1%**	**302,555**	**302,244**
2013-2014	394,304	390,875	364,629	1%	305,580	305,240
2014-2015	406,133	402,359	368,275	1%	308,636	308,265
Total 2000/01-2012/13	**4,193,406**	**4,175,749**	**4,136,901**	**2.54%**	**3,707,831**	**3,705,998**
	difference	17,657			difference	1,833

Accurate figures of wastes delivered by the WCA's into landfill sites are provided to the County's WDA as part of its contract. This includes wastes from household collections, trade waste (small amount), street cleaning and civic amenity wastes for disposal. All landfill sites used for the disposal of MSW have an audited weighbridge and also have to provide returns on waste tonnage's entering into these sites to the Environment Agency and Customs and Excise for the purposes of landfill tax calculations.

The Variable % forecast for MSW is that which is being used by Gloucestershire Waste Disposal Authority (WDA). This is the body responsible for disposing of Gloucestershire's municipal waste. A version of this variable rate was put forward at Inquiry based on the forecast used in the draft Municipal Waste Management Strategy. Over the last two years the WDA has slightly amended this variable rate on the basis of more up-to-date information. However, it should be noted that this rate is not based on a quantitative assessment and instead is considered to represent a potential scenario where waste minimisation strategies will help to reduce the amount of waste produced. If a growth rate were to be based purely on the available quantitative data then the table on sheet "*growth summary*" shows that the 3% model is the most applicable.

Biodegradable Fraction of Gloucestershire's MSW

Source: Waste figures from MWMS (April 2002) pg.29

Composition	Glos Average	National Average	Multiplying Factor	Resultant Bio %
Fines	2.3	7	0.5	1.15
Ferrous	4	6	0	0
Glass	3.4	9	0	0
Green	11.3	21	1	11.3
Putrescibles	34.4	?	1	34.4
Misc. Combustibles	5.8	8	0.5	2.9
Misc. Non-Comb.	0.5	2	0.5	0.25
Non-Ferrous	1	2	0	0
Paper & Card	20.8	32	1	20.8
Plastic Film	4.9	5	0	0
Rigid Plastic	7.6	6	0	0
Textiles	3.9	2	0.5	1.95
Total				**72.75**

Source: Waste figures from MWMS (April 2002) pg.29

Source: Multiplying factor from Tradable Landfill Permits Consultation Paper (March 2001) Annex A pg.36

Variable %

Impact of MSW Recycling and Recovery Targets on Diverted/Landfilled Waste

												DIVERTED	LANDFILL
Year	Waste imported to Glos from Bristol	Variable% HW	Variable% MSW	WS 2000 Recycling & Composting of HW (statutory)		WS 2000 Recovery of MSW includes recycling and composting target amount (not yet statutory)		Amount of MSW left after initial recovery	Biodeg'ble Content of Remaining MSW	Biod'ble allowed to landfill under LFD	Amount of biodeg MSW left after initial recovery and landfill allowance	Total MSW to be diverted as a result of WS2000 and LFD	MSW allowed to landfill under LFD
				Target	*Tonnage*	*Target*	*Tonnage*			*Tonnage*		***Tonnage***	***Tonnage***
2000-2001	-	259,972	268,502	-	*36,227*	-	*36,227*	232,275	168,980	-	-	**36,227**	**232,275**
2001-2002	40,000	267,771	276,557	-	*45,000*	-	*45,000*	231,557	168,458	-	-	**45,000**	**231,557**
2002-2003	37,500	275,804	284,854	-	*55,000*	-	*55,000*	229,854	167,219	-	-	**55,000**	**229,854**
2003-2004	35,000	284,078	293,399	24%	68,179	-	*68,179*	225,220	163,848	-	-	**68,179**	**225,220**
2004-2005	32,500	292,601	302,201	24%	70,224	-	*70,224*	231,977	168,763	-	-	**70,224**	**231,977**
2005-2006	30,000	301,379	311,267	36%	108,496	40%	124,507	186,760	135,868	-	-	**124,507**	**186,760**
2006-2007	27,500	310,420	320,605	36%	111,751	40%	128,242	192,363	139,944	-	-	**128,242**	**192,363**
2007-2008	25,000	319,733	330,223	36%	115,104	40%	132,089	198,134	144,143	-	-	**132,089**	**198,134**
2008-2009	0	326,127	336,828	36%	117,406	40%	134,731	202,097	147,025	-	-	**134,731**	**202,097**
2009-2010	0	332,650	343,564	36%	119,754	40%	137,426	206,139	149,966	-	-	**137,426**	**206,139**
2010-2011	0	339,303	350,436	36%	122,149	45%	157,696	192,740	140,218	123,691	16,527	**174,223**	**176,213**
2011-2012	0	346,089	357,445	36%	124,592	45%	160,850	196,594	143,022	123,691	19,331	**180,182**	**177,263**
2012-2013	**0**	**349,550**	**361,019**	**36%**	**125,838**	**45%**	**162,459**	**198,560**	**144,453**	**123,691**	**20,762**	**183,220**	**177,799**
2013-2014	*0*	*353,045*	*364,629*	*36%*	*127,096*	*45%*	*164,083*	*200,546*	*145,897*	*82,461*	*63,437*	***227,520***	***137,109***
2014-2015	*0*	*356,576*	*368,275*	*36%*	*128,367*	*45%*	*165,724*	*202,551*	*147,356*	*82,461*	*64,896*	***230,619***	***137,656***
2015-2016	*0*	*356,576*	*368,275*	*36%*	*128,367*	*67%*	*246,745*	*121,531*	*88,414*	*82,461*	*5,953*	***252,698***	***115,578***
Total over period 2000/01 - 2012/13	**227,500**	**4,005,476**	**4,136,901**		**1,219,720**		**1,412,630**					**1,469,250**	**2,667,651**

WORKED EXAMPLE Using the data from 2010/11, the total amount of MSW arising is 350,436. After initial recovery targets are met this leaves a smaller amount of waste to be managed. ie.350,436 - 157,696 = 192,740. The amount of biodeg MSW that can be landfilled under the LFD is 123,691 (ie. 75% of the 1995 base date figure). Assuming that what is leftover from the 192,740 is 72.75% biodeg (140,218), and only 123,691 of that can be landfilled, this leaves 16,527 which also needs to be diverted, on top of the initial 157,696. Total diversion of MSW in 2010/11 is therefore = 174,223 tonnes.

Figures for the purposes of calculating the Landfill Directive Targets				Comments
1995 figure for total MSW		226,696	tonnes	WDA figure for 1995/6
Biodegradable content (Glos)	72.75%	164,921	tonnes	The 72.75% biodegradable fraction has been calculated on the "Bio%" sheet. Source: Multiplying factor from Tradable Landfill Permits Consultation Paper (March 2001) Annex A pg.36
75% of 1995 biodegradable MSW figure		123,691	tonnes	
50% of 1995 biodegradable MSW figure		82,461	tonnes	

Possible Effect of Waste and Emissions Trading Bill			Comments
MSW Landfilled (2000/01)	232,275	tonnes	The MSW landfilled figure is taken from the WDA data for that year. As this waste is largely non-segregated it is disposed of as biodegradable. However invitably there will be a an inert fraction included, therefore for the purposes of these calculations the biodegradable fraction is taken as being 72.75%.
Biodegradable MSW Landfilled (2000/01)	168,980	tonnes	
75% of 1995 biodegradable MSW figure	126,735	tonnes	
50% of 1995 biodegradable MSW figure	84,490	tonnes	

(with incremental increase over first 3 years)

(27.25% active content [not classed as biodegradable] of remaining MSW after recovery, then added to biodeg allowed under LFD)

1%

Impact of MSW Recycling and Recovery Targets on Diverted/Landfilled Waste

												DIVERTED	LANDFILL
Year	**Waste imported to Glos from Bristol**	**1% HW**	**1% MSW**	**WS 2000 Recycling & Composting of HW (statutory)**		**WS 2000 Recovery of MSW includes recycling and composting target amount (not yet statutory)**		**Amount of MSW left after initial recovery**	**Biodeg'ble Content of Remaining MSW**	**Biod'ble allowed to landfill under LFD**	**Amount of biodeg MSW left after initial recovery and landfill allowance**	**Total MSW to be diverted as a result of WS2000 and LFD**	**MSW allowed to landfill under LFD**
				Target	*Tonnage*	*Target*	*Tonnage*			*Tonnage*		***Tonnage***	***Tonnage***
2000-2001	-	259,972	268,502	-	*36,227*	-	*36,227*	232,275	168,980	-	-	**36,227**	**232,275**
2001-2002	40,000	262,572	271,187	-	*45,000*	-	*45,000*	226,187	164,551	-	-	**45,000**	**226,187**
2002-2003	37,500	265,197	273,899	-	*55,000*	-	*55,000*	218,899	159,249	-	-	**55,000**	**218,899**
2003-2004	35,000	267,849	276,638	24%	64,284	-	*64,284*	212,354	154,487	-	-	**64,284**	**212,354**
2004-2005	32,500	270,528	279,404	24%	64,927	-	*64,927*	214,477	156,032	-	-	**64,927**	**214,477**
2005-2006	30,000	273,233	282,198	36%	98,364	40%	112,879	169,319	123,180	-	-	**112,879**	**169,319**
2006-2007	27,500	275,965	285,020	36%	99,348	40%	114,008	171,012	124,411	-	-	**114,008**	**171,012**
2007-2008	25,000	278,725	287,870	36%	100,341	40%	115,148	172,722	125,655	-	-	**115,148**	**172,722**
2008-2009	0	281,512	290,749	36%	101,344	40%	116,300	174,449	126,912	-	-	**116,300**	**174,449**
2009-2010	0	284,327	293,657	36%	102,358	40%	117,463	176,194	128,181	-	-	**117,463**	**176,194**
2010-2011	0	287,171	296,593	36%	103,381	45%	133,467	163,126	118,674	123,691	- 5,017	**128,450**	**168,143**
2011-2012	0	290,042	299,559	36%	104,415	45%	134,802	164,757	119,861	123,691	- 3,830	**130,972**	**168,587**
2012-2013	**0**	**292,943**	**302,555**	**36%**	**105,459**	**45%**	**136,150**	**166,405**	**121,060**	**123,691**	**- 2,631**	**133,518**	**169,036**
2013-2014	*0*	*295,872*	*305,580*	*36%*	*106,514*	*45%*	*137,511*	*168,069*	*122,270*	*82,461*	*39,810*	***177,321***	***128,260***
2014-2015	*0*	*298,831*	*308,636*	*36%*	*107,579*	*45%*	*138,886*	*169,750*	*123,493*	*82,461*	*41,032*	***179,919***	***128,717***
2015-2016	*0*	*301,819*	*311,722*	*36%*	*108,655*	*67%*	*208,854*	*102,868*	*74,837*	*82,461*	*- 7,624*	***201,230***	***110,492***
Total over period 2000/01 - 2012/13	**227,500**	**3,590,037**	**3,707,831**									**1,234,175**	**2,473,655**
												(with incremental increase over first 3 years)	(27.25% active content [not classed as biodegradable] of remaining MSW after recovery, then added to biodeg allowed under LFD)

Figures for the purposes of calculating the Landfill Directive Targets				**Comments**
1995 figure for total MSW		226,696	tonnes	WDA figure for 1995/6
Biodegradable content (Glos)	72.75%	164,921	tonnes	The 72.75% biodegradable fraction has been calculated on the "Bio%" sheet. Source: Multiplying factor from Tradable Landfill Permits Consultation Paper (March 2001) Annex A pg.36
75% of 1995 biodegradable MSW figure		123,691	tonnes	
50% of 1995 biodegradable MSW figure		82,461	tonnes	

3%

Impact of MSW Recycling and Recovery Targets on Diverted/Landfilled Waste

												DIVERTED	LANDFILL
Year	**Waste imported to Glos from Bristol**	**3% HW**	**3% MSW**	**WS 2000 Recycling & Composting of HW (statutory)**		**WS 2000 Recovery of MSW includes recycling and composting target amount (not yet statutory)**		**Amount of MSW left after initial recovery**	**Biodeg'ble Content of Remaining MSW**	**Biod'ble allowed to landfill under LFD**	**Amount of biodeg MSW left after initial recovery and landfill allowance**	**Total MSW to be diverted as a result of WS2000 and LFD**	**MSW allowed to landfill under LFD**
				Target	*Tonnage*	*Target*	*Tonnage*			*Tonnage*		***Tonnage***	***Tonnage***
2000-2001	-	259,972	268,502	-	*36,227*	-	*36,227*	232,275	168,980	-	-	**36,227**	**232,275**
2001-2002	40,000	267,771	276,557	-	*45,000*	-	*45,000*	231,557	168,458	-	-	**45,000**	**231,557**
2002-2003	37,500	275,804	284,854	-	*55,000*	-	*55,000*	229,854	167,219	-	-	**55,000**	**229,854**
2003-2004	35,000	284,078	293,399	24%	68,179	-	*68,179*	225,220	163,848	-	-	**68,179**	**225,220**
2004-2005	32,500	292,601	302,201	24%	70,224	-	*70,224*	231,977	168,763	-	-	**70,224**	**231,977**
2005-2006	30,000	301,379	311,267	36%	108,496	40%	124,507	186,760	135,868	-	-	**124,507**	**186,760**
2006-2007	27,500	310,420	320,605	36%	111,751	40%	128,242	192,363	139,944	-	-	**128,242**	**192,363**
2007-2008	25,000	319,733	330,223	36%	115,104	40%	132,089	198,134	144,143	-	-	**132,089**	**198,134**
2008-2009	0	329,325	340,130	36%	118,557	40%	136,052	204,078	148,467	-	-	**136,052**	**204,078**
2009-2010	0	339,204	350,334	36%	122,114	40%	140,134	210,200	152,921	-	-	**140,134**	**210,200**
2010-2011	0	349,380	360,844	36%	125,777	45%	162,380	198,464	144,383	123,691	20,692	**183,072**	**177,773**
2011-2012	0	359,862	371,669	36%	129,550	45%	167,251	204,418	148,714	123,691	25,023	**192,274**	**179,395**
2012-2013	**0**	**370,658**	**382,820**	**36%**	**133,437**	**45%**	**172,269**	**210,551**	**153,176**	**123,691**	**29,485**	**201,753**	**181,066**
2013-2014	*0*	*381,777*	*394,304*	*36%*	*137,440*	*45%*	*177,437*	*216,867*	*157,771*	*82,461*	*75,310*	***252,747***	***141,557***
2014-2015	*0*	*393,231*	*406,133*	*36%*	*141,563*	*45%*	*182,760*	*223,373*	*162,504*	*82,461*	*80,043*	***262,803***	***143,330***
2015-2016	*0*	*405,028*	*418,317*	*36%*	*145,810*	*67%*	*280,273*	*138,045*	*100,428*	*82,461*	*17,967*	***298,239***	***120,078***
Total over period 2000/01 - 2012/13	**227,500**	**4,060,187**	**4,193,406**		**1,239,416**							**1,512,753**	**2,680,653**
												(with incremental increase over first 3 years)	(27.25% active content [not classed as biodegradable] of remaining MSW after recovery, then added to biodeg allowed under LFD)

Figures for the purposes of calculating the Landfill Directive Targets				**Comments**
1995 figure for total MSW		226,696	tonnes	WDA figure for 1995/6
Biodegradable content (Glos)	72.75%	164,921	tonnes	The 72.75% biodegradable fraction has been calculated on the "Bio%" sheet. Source: Multiplying factor from Tradable Landfill Permits Consultation Paper (March 2001) Annex A pg.36
75% of 1995 biodegradable MSW figure		123,691	tonnes	
50% of 1995 biodegradable MSW figure		82,461	tonnes	

Commercial & Industrial Waste Management 2000/01

Source:Report for Gloucestershire County Council (June 2000) Environment Agency as updated 2001

Description	Amount	Units	Comment	Source
Commercial & Industrial Waste Deposits				
Commercial and Industrial Waste Treatment	54,375	tonnes	It is assumed that 75% of this is recycled with the rest being landfilled (already included in landfill figure)	Report for Gloucestershire County Council (June 2000) Environment Agency and updated 2001
Biodegradable Commercial & Industrial Waste Landfilled	329,771	tonnes	This is the EA biodeg figure without the MSW arisings (note: trade waste element 8,530 is included in the deduction).	
Commercial and Industrial Waste Transfer	51,084	tonnes	This is not included in the total C&I figure as EA data indicates that almost all of it is sent on to landfill.	
Total Commercial and Industrial Waste (not including metals)	**370,552**	**tonnes**	Note: this does not include the transfer element or metal recycling, which is considered to be a self-contained waste stream (see below)	
C&I Waste to Landfill 2000/01	329,771	63%		Waste strategy 2000 target of reducing the amount of C&I waste sent to landfill to 85% of that in 1998
C&I Waste Diverted/Recovered 2000/01	40,781		this figure does not include metal recycling	
C&I Waste Diverted/Recovered 2000/01 (including metal recycling)	195,101	37%	note: this does not include waste transfer or special metal recycling	
Targets for Commercial and Industrial Waste				
1998 Figure for Landfill of C&I	382,475	EA 2000 report for Glos [Biodeg landfilled 611,225-228,750(MSW)]		
C&I Waste Allowed to Landfill After 2005 Target (85% of 1998 figure)	325,104	Assuming that C&I has 0% growth, the extent to which current diversion is almost meeting this 2005 target level was noted by the Inspector at Round Table Session (Inspector's RTS notes section 6).		
Total C&I Requiring Diversion/Recovery in 2005 Through to 2012/13 (not including metal recycling)	**45,449**	Metal recycling has not been included in this figure as advice from Industry is that it is effectively a self contained waste which is being dealt with by the current network of facilities. If it were included in the total figure this may give the impression that more C&I recycling/recovery facilities are needed than is actually the case.		
Metal Recycling Figures 2000/01			Source: Report for Gloucestershire County Council (June 2000) Environment Agency and updated 2001	
Metal Recycling	154,320	tonnes	this figure does not include special metal recycling	
Special Metal Recycling	6,882	tonnes	EA advice that special metal recycling largely comprises oil and batteries. It is therefore included in the special waste figures.	

Previous C&I Growth	1997/98	1998/99	1999/00	2000/01
All Biodegradable Waste to Landfill	805,488	611,225	646,261	562,046
MSW to Landfill	233,630	228,750	239,364	232,275
C&I to Landfill	571,858	382,475	406,897	329,771
C&I Recovered/Recycled	75,846	32,484	50,237	195,101
Total C&I Waste Arising	**647,704**	**414,959**	**457,134**	**524,872**
% Change in C&I	-	-36%	10%	15%

Inert Waste Management 2000/01			Source: Report for Gloucestershire County Council (June 2000) EA as updated 2001	
Description	**Amount**	**units**	**Comment**	
Inert Construction and Demolition Waste Landfilled	187,929	tonnes	This includes inert waste which is classed as landfilled but which was actually used for engineering purposes (eg. shaping, cap and cover)	
Inert Construction and Demolition Waste Transfer	155,914	tonnes	This category includes the sorting and transfer of wastes for bulk recovery and reprocessing as well as transfer to disposal or treatment facilities within or outside Gloucestershire. From EA figures for transfer stations it is likely that approx 40% of inert waste included in this section has been recovered/recycled. 40% of this total is therefore addded to waste recovered total.	
Inert Construction and Demolition Waste Treatment	38,250	tonnes	The figure given here is only for Stroud, all other Districts totals were zero. From EA figures it is assumed that 75% of this is recycled with the remaining going to landfill (already included in landfill figure)	
Total Inert Construction and Demolition Waste	**278,982**	**tonnes**	This includes 40% of transferred waste which is assumed is recovered and not included in the total. The 60% that is landfilled is assumed to be included already in the total landfilled figure. It also includes 75% of the treated total, ie. that fraction which is recycled.	
% of Current Inert C&D Waste To Landfill	67%	187,929	tonnes	For the purposes of this Plan the inert waste deposits are considered as being C&D waste. In reality a small proportion may fall within the C&I waste stream. However for simplicity as C&I has been limited to biodegradable waste it was considered appropriate to classify all inert waste as C&D.
% of Current Inert C&D Waste Diverted	33%	91,053	tonnes	

Targets for Inert C&D Wastes			
1998/99 Total C&D Waste (with 100% transferred element included)	366,117	tonnes	If 60% of the transfer element from the 2000/01 figure is omitted on the basis of double handling, then in order to make the target meaningful this deduction also should be made for the base year. The EA document for Glos (June 2000) gives a figure of 85,918 for C&D transfered waste in 1998/99.
1998/99 Total C&D Waste (minus 60% transferred waste sent to landfill)	314,566	tonnes	
57% of 1998 Figure to be Recovered by 2001 (60% transferred element removed)	179,752	tonnes	These figures are arrived at by extrapolating the National Waste Strategy targets down to a local level % for Gloucestershire based on the information provided in the National waste strategy (total C&D waste 1998 = 70 million tonnes per year). There is an aim within the national waste strategy to double the amount of secondary materials in the UK from roughly 30 mtpa in 1998 to 40mtpa in 2001 and 55mtpa in 2006.
Recovery Required by 2006 (79% of 1998 figure)	247,159	tonnes	
Actual Amount Recovered in 2001	91,053		Please note that these figures assume that 40% of transfered inert waste that occurs in the County is recycled, with the remaining 60% going on for final disposal (already included in the inert landfilled figure). It also assumes that 75% of the treated waste is similarly recovered.
Shortfall in Recovery in 2001	88,699		
Theoretical Amount Allowed to Landfill after Recovery in 2001	99,230		
Amount of Inert C&D Waste Expected to Arise in 2006	278,982		Assuming a 0% increase in arisings.
Total Amount of C&D Recovery that is Needed by 2006 to Meet Targets	247,159		
Amount of Inert C&D Waste Allowed to Landfill in 2006	31,823		

UK figures	Tonnes	Converted to %	Comment
Total C&D 1998	70,000,000	100%	These are the aspirational targets set out in the national waste strategy 2000 which have been extrapolated to a % of national C&D waste, then projected onto Gloucestershire's figure to give targets.
2001 Secondary Material Recovery Target	40,000,000	57%	
2006 Secondary Material Recovery Target	55,000,000	79%	

Gloucestershire's Previous C&D Growth	1997/98	1998/99	1999/00	2000/01
C&D Landfilled	254,564	280,199	165,857	187,929
C&D Treated	-	-	34,050	28,688
C&D Transferred	27,788	34,367	62,275	62,366
Total Inert C&D Arising	**282,352**	**314,566**	**262,182**	**278,982**
% Change	-	11%	-17%	6%

Agricultural Waste	Source: Strategic Waste Management Assessment 2000 South West		
Impact of Agricultural Waste Becoming a Controlled Waste			
Nature of Material	**Tonnes in 1998**	**Tonnage During Plan Period**	**Comments**
Compostible and Digestible	1,059,843	9,538,587	It is assumed that this waste will be composted/reused on site.
Combustible	41,709	375,381	For the purposes of assessing future voidspace it is assumed that this waste will be landfilled. In reality a percentage of it may be recycled/reused/recovered.
Difficult and Chemical	13,484	121,358	It is assumed that this waste will be included in the Special Waste stream.
Other	766	6,894	This waste includes milk and vehicles/machinery.
Total	**1,115,802**	**10,042,220**	This is based on a 0% growth rate.

The 1998 figures have been obtained from the SWMA (pg.65). These figures have not been used in the overall tables due to the uncertainty as to whether this waste stream will be re-classified at some future date. However, calculations are made here for indicative purposes. For the purposes of these calculations it is assumed that this waste stream is constant in respect of arisings. Information from the EA is that this waste stream may become a controlled waste in 2004, therefore for the purposes of calculating total tonnages over the plan period the arisings figure has been multiplied by 9.

Gloucestershire Landfill Voidspace

Source: Environment Agency

Description	Amount	Units	Date	Comment
Non Hazardous (MSW and C&I) Void Space at 2001	11,700,000	m³	23-Nov-01	This does not include cap and cover @ 10%.
Cap @ 5% and Cover @ 5% (10% total) for Non Hazardous Landfill	*1,300,000*	*m³*	*23-Nov-01*	*Part of this figure will include some of the waste from the inert landfilled total.*
Other Void Space	3,786,975	m³	23-Nov-01	This is assumed to be for hazardous waste and does not include cap and cover.
Cap @ 5% and Cover @ 5% (10% total) for Hazardous Landfill	*420,775*	*m³*	*24-Nov-01*	*This is the voidspace required for cap and cover for hazardous landfill.*
Total Voidspace at 2000/01 (not including cap & cover)	15,486,975	m³	23-Nov-01	This total has been obtained from the EA, though the WPA are aware that some interested parties have questioned its accuracy. Whilst it differs from that stated in the EA Report 2001 pg.6, following considerable discusssions with the EA and Industry this is considered to be the best data available at this time. To ensure that this figure is as reliable as possible the situatiuon will be monitored carefully.

Compaction Densities	Inert tonnes/m³	Biod'ble tonnes/m³	Comment
	1.5	1.0	Compaction densities derived from RTS (Inspector's notes section 3)

Volume of inactive waste sent to landfill 2000/01 (not including the inert waste landfilled which was used for cover)	106,551	m³	Inert Waste landfilled minus amount equivalent to 5% of the biodegradable amount, which was used for cover, divided by 1.5 (Source: EA Addendum report for Glos Oct 2001)
Amount of inert waste classed as being landfilled but actually used for cover (but not cap)	28,102	tonnes	This is the tonnage of inert waste which is used for engineering purposes (ie. cover) but is included in the total amount of inert landfilled waste which is trucked over the weighbridge. It is therefore assumed that for the puroposes of calculating voidspace, this amount is already included within the cap and cover figure.
Volume of Biodegradable Waste Sent to Landfill 2000/01	562,046	m³	Biodegradable Wastes divided by 1.0 (Source: EA Addendum report for Glos Oct 2001)
Volume of Hazardous Waste Sent to Landfill 2000/01	37,955	m³	Assuming this only relates to Special Waste (Source: EA Addendum report for Glos Oct 2001)
Tonnage of Waste Sent to Landfill 2000/01	759,828	tonnes	This figure does not include the amount of inert waste used for cover but actually classed as being landfilled.
Volume of Waste Sent to Landfill 2000/01	706,552	m³	Assuming compaction rates of 1.5 t/m³ for inert waste and 1.0 t/m³ for active waste (based on landfill figures from Environment Agency update Report for Glos 2001)

The figure below is indicative only, based on CURRENT inputs (it does not include for example waste brought to Gloucestershire as part of a contract relating to another administrative area, or reduced need to dispose of waste through increased recovery/recycling/minimisation etc.).

Remaining Non-Hazardous Landfill Capacity at <u>Current</u> Input Levels	17.5	years	This is based on current landfill inputs for C&I waste + MSW + inert waste. But not including the proportion of inert waste classed as landfilled but actually used for cover etc. (this is worked out as 5% of the biodegradable total minus the inert total).

There is believed to be additional void space for inert wastes within some of the exempt sites registered in Gloucestershire under Waste Management Licensing Regulations 1994 SI 1056, though not all of this is available for 'disposal' (as agricultural improvement) as some space will be taken for capping and engineering purposes.

In relation to the compaction densities, to work out the volume that X tonnes of inert waste waste occupy in a landfill site it is necessary to divide the tonnage by 1.5. Conversely, to find out how many tonnes of inert waste occupy Y m³ of landfill space it is necessary to multiply the volume by 1.5

Minimum Recovery and Recycling Capacity Required

Source: Report for Gloucestershire County Council (June 2000) Environment Agency as updated 2001

Year	Minimum Diversion required for MSW	Minimum Diversion of C&I Waste	recycling of C&I metal waste	Minimum recycling of inert C&D waste	Minimum treatment of special wastes	Sub-total for each year	Unit
2000-2001	36,227	40,781	154,320	179,752	7,937	419,017	tonnes
2001-2002	46,878	41,711	154,320	179,752	7,937	430,598	tonnes
2002-2003	57,529	42,641	154,320	179,752	7,937	442,179	tonnes
2003-2004	68,179	43,571	154,320	179,752	7,937	453,759	tonnes
2004-2005	70,224	44,501	154,320	179,752	7,937	456,734	tonnes
2005-2006	124,507	45,449	154,320	179,752	7,937	511,964	tonnes
2006-2007	128,242	45,449	154,320	247,159	7,937	583,106	tonnes
2007-2008	132,089	45,449	154,320	247,159	7,937	586,954	tonnes
2008-2009	134,731	45,449	154,320	247,159	7,937	589,595	tonnes
2009-2010	137,426	45,449	154,320	247,159	7,937	592,290	tonnes
2010-2011	174,223	45,449	154,320	247,159	7,937	629,087	tonnes
2011-2012	180,182	45,449	154,320	247,159	7,937	635,046	tonnes
2012-2013	183,220	45,449	154,320	247,159	7,937	638,084	tonnes
TOTAL from 2000 up to 2012/13	**1,473,657**	**576,794**	**2,006,160**	**2,808,627**	**103,175**	**6,968,413**	**tonnes**

Minimum recycling and recovery capacity (including 2000/01 and 2001/02) up to 2012/13	**6,968,413**	**tonnes**

Current Annual Recovery and Recycling Capacity in Gloucestershire (assumed using the amount of current waste not being landfilled)	330,318	tonnes
1998/99 Annual Recovery and Recycling Capacity in Gloucestershire (based on SWMA 2000:SW Annex 4 table 4). [Please note that this is for all waste types though it is unclear why the inert capacity is shown in that document as being zero. This figure is therefore not being used in the calculations].	387,000	tonnes
Predicted Recovery/Recycling Required Per Annum Between 2001 and 2012/13 [ie 13 years] (note that this is given as a figure per year but in reality it will start off smaller and end up larger based on meeting incremental targets)	536,032	tonnes
Recovery Capacity up to End of Plan Period 2012/13 (assuming current recovery/recycling facilities are operating at full capacity based on current levels of input)	4,294,131	tonnes
Shortfall in Recovery/Recycling/Diversion/Composting (over the period 2000/01-2012/13)	2,674,282	tonnes
Shortfall in Recovery/Recycling Per Annum	**205,714**	**tonnes**

Special waste arisings (including import/export) are assumed to remain relatively constant at their present level although the segregation of hazardous and non hazardous landfill (against co-disposal) may see the treatment and recovery of hazardous waste increase.

The total for inert recovery in 2000/01 is different to the actual amount recovered because the C&D element in this table relates to the amount that should have been recovered to meet the non-statutory target, rather than then actual amount that was recycled.

Commerce and industry will use the whole of their landfill space quota and the levels of C&I waste remain static (reality shows them decreasing slightly over the last 4 years

The plan period is for ten years. However the Plan's base date of 2002/03 goes up to 2012/13 which is actually eleven years. When this is added to the two years prior to this base date (ie. 2000/01 and 2001/02), which have been used because 2000/01 is the last year that data was avaiable when the calculations were made, this makes a total of thirteen years The figures used are therefore multiplied or divided by thirteen.

Amount of Recycling/Recovery Required for Each Waste Stream (tonnes)

	MSW	C&I	C&I Metals	C&D	Special	*Sub Total*	Commentary
2000/01 Recycled Arisings	36,227	40,781	154,320	91,053	7,937	*330,318*	Actual recovery figure.
Current Facility Recovery Capacity Over 13 Years	470,950	530,156	2,006,160	1,183,690	103,175	*4,294,131*	Projected amount needed to be recovered based on current throughputs multiplied by 13 years.
Assumed Recovery Capacity Required	1,473,657	576,794	2,006,160	2,808,627	103,175	*6,968,413*	Tonnages required to meet targets. MSW forecast at Variable % rate.
Shortfall in recycling/recovery up to 2012/13	1,002,707	46,638	-	1,624,936	**-**	*2,674,282*	Over a thirteen year period.
Average Additional Recovery/Recycling Required Per Year	**77,131**	**3,588**	**-**	**124,995**	**-**	***205,714***	Divided by 13 years (assuming 100% recovery of inputted material)
Potential Capacity of Additional Facilities Required Per Annum to Meet Recycling Targets	385,657	17,938	-	156,244	**-**	*559,838*	This assumes that only 20% of the throughput of a biodegradable recycling facility is actually recovered, the rest (80%) is disposed of. This however is dependent on the state in which the waste is deliered to the facility. This recovery rate could be almost 100% if there is source segregation of waste. This is a matter which needs to be monitored. For C&D waste it is assumed that 80% is recovered from the throughput.

These figures do not include facilities which may be needed to meet the LFD requirement to pre-treat waste prior to landfilling. Treatment is defined as physical, chemical or biological processes, including sorting, that change the characteristics of the waste in order to reduce its volume or hazardous nature, facilitate its handling or enhance recovery. However, if source segregation is not considered to fulfil pre-treatment requirements then additional facilties could be required.

Landfill Void Space Required (based on a 72.75% biodegradable content and on meeting targets)

Year	MSW allowed to landfill under LFD assuming Variable % Forecast	Waste imported to Glos from Bristol	Amount of landfilled MSW which can be biod'ble	Level of C&I Allowed to landfill	Amount of inert C&D waste to landfill	Special Wastes to landfill	Sub-total for each year	Sub-total for each year (not including Bristol Waste)
2000-2001	232,275	0	-	329,771	187,929	37,955	**787,930**	787,930
2001-2002	231,557	40,000	-	329,771	99,230	37,955	**738,513**	698,513
2002-2003	229,854	37,500	-	329,771	99,230	37,955	**734,310**	696,810
2003-2004	225,220	35,000	-	329,771	99,230	37,955	**727,176**	692,176
2004-2005	231,977	32,500	-	329,771	99,230	37,955	**731,433**	698,933
2005-2006	186,760	30,000	-	325,104	99,230	37,955	**679,049**	649,049
2006-2007	192,363	27,500	-	325,104	31,823	37,955	**614,745**	587,245
2007-2008	198,134	25,000	-	325,104	31,823	37,955	**618,016**	593,016
2008-2009	202,097	0	-	325,104	31,823	37,955	**596,978**	596,978
2009-2010	206,139	0	-	325,104	31,823	37,955	**601,020**	601,020
2010-2011	176,213	0	123,691	325,104	31,823	37,955	**571,094**	571,094
2011-2012	177,263	0	123,691	325,104	31,823	37,955	**572,145**	572,145
2012-2013	177,799	0	123,691	325,104	31,823	37,955	**572,680**	572,680
Total tonnage for maximum landfill inputs	**2,667,651**	**227,500**		**4,249,685**	**906,840**	**493,415**	**8,545,090**	**8,317,590**

Special Agricultural Waste	**121,358 tonnes**

Voidspace Required For All Wastes Over Period 2000/01 - 2012/13	**8,242,810**	**m³**	This figure does not distinguish between hazardous and non-hazardous voidspace. It also does not include cap and cover @ 10% (however the total remaining void space has 5% subtracted to allow for capping, cover is taken to be already included in the inert section)
Tonnage Space Required For All Wastes During 2000/01 - 2012/13	**8,545,090**	**tonnes**	
Active (biodegradable) Wastes Compaction Rate	1	t/m³	Compaction densities derived from RTS (Inspector's notes section 3)
Inert Waste Compaction Rate	1.5	t/m³	
2012/13 Remaining Non-Hazardous Void Space [MSW, inert waste and C&I including that for 5% cover (part of inert landfill total)]	4,600,605	m³	This calculation assumes that the 5% cover will be included within the inert landfilled figure (due to use of soils for engineering/ landscaping purposes), this is therefore transposed to the non-hazardous void-space figure. In addition, in reality non-hazardous inputs should reduce, giving an even longer life for currently permitted voidspace. It is also possible that due to commercial decisions a greater amount of landfill could be declared for non-hazardous waste, reducing that available for hazardous waste. This figure also does not include 'exempt' sites, or agricultural improvements, which may have significant capacilty for inert disposal in the County.
Years Remaining After 2012/13 for Non-Hazardous Voidspace [based on continuation of 2012/13 inputs, not including agricultural waste]	8.8	years	
2012/13 Remaining Hazardous Voidspace [special waste, including agricultural special waste deductions]	3,172,202	m³	
Years Remaining After 2012/13 for Hazardous Voidspace [based on continuing 2012/13 inputs (including agricultural special waste deductions)]	61.7	years	
Years Remaining of Non-Hazardous Landfill Voidspace After 2012/13 [assuming that agricultural waste becomes a controlled waste from 2004]	7.5	years	This remaining life assumes that combustible agricultural waste will be deposited in landfill sites at the 1998 rate of arisings.

Special waste has remained relatively constant in landfill in the last 4 years, this rate is assumed to continue. It is also assumed for the purposes of these indicative calculations that commerce and industry will use the whole of their landfill space quota.

The MSW figure does not include the possible import of waste from outside of the County or Region, beyond that which has already been identified by Industry (ie. the Bristol contract with Cory Environmental). Whilst this situation will be monitored it is not an issue that is within the control of the WPA.

There are no restrictions for the landfilling of inert wastes. However, there is an aim within the National Waste Strategy to double the amount of secondary aggregate materials in the UK from roughly 30 mtpa in 1989 to 40 mtpa in 2001 and 55 mtpa in 2006. The introduction of an aggregates levy may also reduce the amount of inert waste being disposed of by landfill. It is assumed that there will be a 0% growth of this waste type.

It is likely that a proportion of the inert landfilled material is used to cover the site. Therefore this calculation discounts the 5% cover figure as it will be included within the inert landfilled figure.

Gloucestershire Waste Arising (tpa)			
Year	**Recovery/ Recycling etc.**	**Disposal**	**Yearly Total**
2000/01	330,318	787,930	**1,118,248**
2001/02	430,598	698,513	**1,129,111**
2002/03	442,179	696,810	**1,138,988**
2003/04	453,759	692,176	**1,145,935**
2004/05	456,734	698,933	**1,155,667**
2005/06	511,964	649,049	**1,161,013**
2006/07	583,106	587,245	**1,170,351**
2007/08	586,954	593,016	**1,179,969**
2008/09	589,595	596,978	**1,186,574**
2009/10	592,290	601,020	**1,193,310**
2010/11	629,087	571,094	**1,200,182**
2011/12	635,046	572,145	**1,207,190**
2012/13	638,084	572,680	**1,210,765**
Total	**6,879,714**	**8,317,590**	**15,197,304**

Total Waste Arising Over The Plan Period	**15,197,304 tonnes**

The recovery figure for 2000/01 used above is the actual amount that was recovered/recycled. This is different to the figure used in the "Recycling/Recovery Capcity Required" table, which is the amount which should have been recovered through meeting the non-statutory targets. It is the inert recycled figure in 2000/01, which was 88,699 tonnes short of the recycling target, that has caused this discrepancy.The landfill figure subsequently drops dramatically between 2000/01 and 2001/02 because the actual amount of C&D landfilled in 2000/01 has been used in that year, whereas for each year thereafter the WPA have used the maximum landfill inputs based on meeting the non-statutory targets. This explains the difference in overall total compared with other tables.

Total Waste Arising pa

Summary of Recovery/Diversion Required

Total Waste Anticipated to Arise in Gloucestershire Between 2000/01 - 2012/13	**15,286,003 tonnes**	This figure is based on a 0% growth rate for C&I, C&D and Special wastes and also assumes an equal import/export ratio (Special Waste excepted). For MSW calculations the WPA have used a Variable % change over the Plan period. As it relates to arisings it does not include waste brought to Hempstead landfill site from Bristol.
Maximum Waste Allowed To Landfill Between 2000/01 - 2012/13	**8,317,590 tonnes**	This figure assumes that the Landfill Directive targets for MSW are adhered to, as is the reduction of commercial and industrial waste to 85% of the 1998 level. It does not include agricultural waste.
Total Diversion of All Wastes From Landfill Based on Current Diversion (by 2012/13)	**4,294,131 tonnes**	This is the total amount of recovery/recycling etc that would be achieved if present rates continued from 2000/01 figure up to 2012/13. It therefore assumes that the current level of recovery and recycling is at full capacity.

Capacity Requirements		**Comment**
Minimum Recovery/Recycling Required For All Waste Streams (2000/01 - 2012/13)	**6,968,413 tonnes**	This level of recovery needed arises from meeting targets set by the National Waste Strategy for recovery and recycling of municipal, commercial & industrial and inert wastes. It also encompasses within these targets the requirements of the Landfill Directive.
Additional Recovery/Recycling Required Above Current Capacity Over Period 2000/01 - 2012/13	**2,674,282 tonnes**	This is the shortfall in recovery/recycling facilities (assuming current throughputs are full capacity). It is the diversion figure (2000/01) multiplied by the number of years up to 2012/13 [assumed facility capacity], subtracted from the minimum recycling figure to meet targets.
Additional Recycling/Recovery Needed Per Annum	**205,714 tonnes**	This is the amount of additional recovery/recycling/composting etc. output capacity that is need each year in the County for all waste streams. In addition, further facilities may be needed to meet the LFD requirement to pre-treat waste prior to landfilling.